

**THE DEVELOPMENT AND VALIDATION OF A PARTIAL COMPETENCY MODEL
FOR BRANCH MANAGERS IN THE CLOTHING RETAIL INDUSTRY**

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DECLARATION

I, the undersigned, hereby declare that the work contained in this thesis is my own original work and that I have not previously in its entirety or in part, submitted it at any university for a degree.

SIGNATURE

DATE

ABSTRACT

Understanding and measuring job performance constructs enables organisations to utilise their human resources more effectively. The job performance of workers can be conceptualised on two levels, namely on a job result or outcome level (e.g. sales figures, units produced) and on a behavioural level (e.g. planning a budget, attentiveness to customers). To the extent that the former is within the control of the worker responsible, its success is a function of the worker's behaviour on the job. Successful performance on the job outcome level for which the job exists thus requires specific levels of performance (i.e., competence) on the behavioural competencies in that the latter complexly determines the former. The level of performance achieved on the outcome level could, however, also recursively feed back onto the level of performance reached on the behavioural competencies. A complex network of causal influences thus exist between the job outcomes for which the job exists and the latent behavioural competency variables.

Although this multi-dimensional structural model between job behaviour and job outcomes are widely recognised in theory, it is not often developed or tested in practice. Such models will give credence to performance criteria used as part of performance management and will also assist organisations in selecting and evaluating job success predictors. In addition, these models can serve as diagnostic tools for organisational development.

This research study develops and evaluates a performance or competency structural model for branch managers in the clothing retail industry. The results seem to suggest a reasonable good fit for the exogenous model (i.e. competency measurement model), but a poor fit for the endogenous model (i.e. job outcomes measurement model). Due to estimation problems with the endogenous model, multiple regression analysis is used instead of the more appropriate analysis in this case, structural equation modelling, for evaluating the structural model. The regression results confirm the importance of certain competencies in terms of unit performance and provide understanding of the rather complex performance domain.

OPSOMMING

Die verstaan en meet van posprestasie stel organisasies in staat om hul menslike hulpbronne meer effektief te bestuur. Die posprestasie van werkers kan op twee vlakke gekonseptualiseer word, naamlik op 'n posuitkomsvlak (bv. verkoopssyfers, eenhede geproduseer) en op 'n gedragsvlak (bv. beplanning van 'n begroting, oplettendheid teenoor klante). Sukses op die eersgenoemde vlak, in die mate waartoe dit binne die beheer van die verantwoordelike werker is, is 'n funksie van die werker se gedrag in die werk. Suksesvolle prestasie op die posuitkomsvlak, waarvoor die pos bestaan, vereis dus spesifieke vlakke van prestasie (dws. bevoegdheid) op die gedragsvlak deurdat die laasgenoemde die eersgenoemde op 'n komplekse wyse bepaal. Die vlak van prestasie behaal op die uitkomsvlak sou egter ook 'n terugvoereffek kon hê op die vlak van prestasie op die gedragsbevoegdhede. 'n Komplekse netwerk van kousale invloede bestaan dus tussen die posuitkomse waarvoor die pos bestaan en die latente gedragsbevoegdhede veranderlikes.

Alhoewel hierdie multi-dimensionele strukturele model tussen werksgedrag en posuitkomste wyd erken word in die teorie, word dit nie algemeen ontwikkel of getoets in die praktyk nie. Sulke modelle sal geloofwaardigheid bied aan prestasiekriteria wat aangewend word as deel van prestasiebestuur en sal ook bydra tot organisasies se seleksie en evaluasie van voorspellers vir posukses. Hierdie modelle kan verder as diagnostiese instrumentasie dien vir organisasieontwikkeling.

Hierdie navorsingstudie behels die ontwikkeling en evaluering van 'n strukturele prestasie- of bevoegdheidsmodel vir takbestuurders in die klere-kleinhandelindustrie. Die resultate blyk 'n redelike goeie passing aan te dui vir die eksogene (bevoegdheids-) model, maar 'n swak passing vir die endogene (posuitkoms-) model. As gevolg van beramingsprobleme met die endogene model word meervoudige regressieontleding gebruik in plaas van strukturele vergelykingsmodellering wat 'n meer toepaslike analise in hierdie geval sou wees. Die regressieresultate bevestig die belangrikheid van sekere bevoegdhede in terme van eenheidsprestasie en werk mee om 'n redelike komplekse prestasiedomein meer verstaanbaar te maak.

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Dedicated to my father, Adri van der Bank

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CHAPTER 1

INTRODUCTION, OBJECTIVES AND OVERVIEW OF THE STUDY

1.1 Introduction

Organisations continuously have to focus on their effectiveness to ensure competitiveness in the global economy. Organisational effectiveness is strongly influenced by the performance of its human capital. The job performance of workers can be conceptualised on two levels, namely on a job result or outcome level (e.g. sales figures, units produced) and on a behavioural level (e.g. planning a budget, attentiveness to customers). To the extent that the former is within the control of the worker responsible, its success is a function of the worker's behaviour on the job. Successful performance on the job outcome level for which the job exists thus requires specific levels of performance (i.e., competence) on the behavioural competencies in that the latter complexly determines the former. The level of performance achieved on the outcome level could, however, also recursively feed back onto the level of performance reached on the behavioural competencies. A complex network of causal influences thus exist between the job outcomes for which the job exists and the latent behavioural competency variables. Although organisations may be more concerned about performance on the job outcome level than on the behavioural level, the former is only achieved by understanding the identity of the latent job competency variables and the manner in which they combine to affect the outcome variables and managing the latter accordingly (Binning & Barrett, 1989; Cascio, 1998; Jones, 2001; Latham & Wexley, 1994; Smith, 1976)

Behavioural performance in turn is the function of a nomological network of person-centred characteristics (e.g. personality traits, specific abilities and knowledge) and situational variables. Instrumental to managing behavioural regularities is controlling these person-centred characteristics or competency potential through various human resource policies and interventions (Binning & Barrett, 1989; Cascio, 1998). In this sense, behaviour is not only a determinant of job outcomes, but also the mediating factor through which human attributes affect these outcomes. A complex

performance@work structural model (SHL, 2000; 2001) is thereby implied in which a network of inter-linked latent competency potential variables causally map onto a network of inter-linked latent competency variables that in turn causally map onto a network of inter-linked latent job outcome variables. The centrality of the latent job behaviour variables in the performance@work structural model necessitates that their identity and the manner in which they mediate between the person-centred characteristics and the level of performance achieved on the job outcome variables be clearly understood.

A accurate understanding of the manner in which latent job competency potential, job competency and job outcome variables are inter-related in the performance@work structural model would offer the possibility of purposefully and rationally (proactively) improving performance on the job competencies relevant to the job outcomes for which the job exists via a variety of human resource management interventions. An accurate understanding of the manner in which latent job competency potential, job competency and job outcome variables are inter-related in the performance@work structural model moreover would offer the possibility of purposefully and rationally (reactively) salvaging currently unacceptable performance. To sanction this formative role the accuracy of any hypothesised performance@work structural model would, however, have to be demonstrated by operationalising the latent variables comprising the model and showing that the model fits empirical data. Evidence of the person characteristic-behaviour-outcome relationships would for example serve as justification for making performance inferences based on person-centred attributes underlying such behaviour in personnel selection (Binning & Barrett, 1989; Latham & Wexley, 1994; Smith, 1976; Society for Industrial Psychology of South Africa (SIOPSA), 2005).

The empirical formative and summative evaluation (Babbie & Mouton, 2001) of proactive and reactive human resource interventions (e.g., selection and training/development) aimed at improving job performance on the behavioural level requires operational measures of the latent competency and/or competency potential variables the interventions are meant to affect. The validity and credibility of the verdicts reached on the effectiveness, equity and efficiency of such interventions depend on the methodology of the evaluative research study. This includes *inter alia*

the reliability and (construct) validity of the criterion measures used to operationalise the latent job competency variables.

Behavioural performance indicators are derived from the constitutive definitions of the latent job competency variables they are meant to reflect. The constitutive definition reflects the internal structure of the latent variable. The constitutive definition, however, also reflects the manner in which the latent job competency variable in question is related to job outcomes valued by shareholders and/or how the latent job competency potential variable is related to latent job competency variables. These multi-dimensional relationships between outcomes and behaviours and person-centred attributes and behaviour are reflected in the performance@work structural model. Demonstrating close structural model fit would thereby then also render convincing empirical evidence supporting the construct validity of the criterion measure used to assess the latent job competency variables. Typical validation studies normally do not examine the construct validity of criterion measures beyond an examination of the internal structure of the instrument.

Traditionally the nature of the behaviour-outcome relationship is hypothesised by utilising a number of job analysis techniques and verified by comparing the results across the various methods used (SHL Job Analysis and Competency Design Course Training Manual, 1994). An empirical investigation of the relationships deduced from the job description serves to further confirm whether such hypotheses should be accepted or not. In addition, empirical investigation of the fit of the competency structural model¹ through multivariate statistics could also assist in determining the relative importance of specific behaviours in terms the amount of

¹ The terms competency (or performance) structural model, competency model and competency measurement model have different meanings in the text. The term competency structural model is used synonymously with the term performance structural model and refers to a structural model with a network of relationships between competencies or relevant job behaviours and job outcomes. The term competency model (i.e. without reference to the term *structural*) is a broad encompassing concept that refers to the causal relationships existing between latent competency potential variables, competencies and outcomes. In the thesis title the term partial competency model has the same meaning as the term competency structural model. Note that when the literature refers to the word competency model it often only describes an inventory of behaviours which are not explicitly linked to competency potential or specific job outcomes. Finally, the term competency measurement model refers to a model that reflects the manner in which competency latent variables express themselves in the measurable variables.

variance it explains in performance outcomes (Diamantopoulos & Siguaw, 2000; Tabachnick & Fidell, 2007).

For the well-known South African retailer, PEP, the performance of its more than a 1000 stores, is central to its organisational success. In PEP's organisational structure its store managers are partly held accountable for store success, as store manager actions are considered to be instrumental in the achievement of store outcomes. If this is the case, there must be an underlying performance structural model explaining the multi-dimensional relationship between store manager behaviour and store outcomes. An understanding of this unique behaviour-job outcome relationship would assist PEP in managing store performance more effectively and could offer large financial rewards. Empirical evidence of such relationship would also provide higher credibility to person-centred selection criteria that have been derived from specific job behaviours.

The purpose of this study is to develop and test a store manager competency structural model that reflects the impact of store manager behaviour/competencies on salient store performance/outcome dimensions. Due to logistical constraints the study will not attempt to model the impact of latent competency potential variables on store manager competencies. Since the envisaged model will exclude the person-centred attributes underlying behaviour, it should technically be viewed as only a partial retail store manager performance@work structural model. If close model fit would be achieved for the proposed partial competency structural model subsequent research should endeavour to elaborate the model by mapping specific latent competency potential variables onto the store manager competencies identified in this study.

1.2 Objectives

More specifically, the objectives of the study are:

- To explicate the competencies and outcome variables that constitutes store manager success.

- To develop a theoretical structural model that explicates the nature of the causal relationships between store manager job behaviours and store outcomes.
- To develop performance rating questionnaires measuring store manager job behaviours/competencies, as well as some of the store outcomes not currently routinely assessed by PEP.
- To empirically test the proposed structural model by first testing the separate measurement models and thereafter the structural model.

1.3 Overview of the study

Chapter 2 provides a literature overview of competency modelling in general and discusses the development of the PEP store manager competency structural model. Chapter 3 focuses on the research methodology and includes the research design, the statistical hypotheses, the development of the measurement instruments, selection of the sample, administration of the measurement instruments, statistical analyses performed, and shortcomings of the methodology followed. The results and discussion thereof is dealt with in Chapter 4, and finally, Chapter 5 is used for conclusions and recommendations based on the results.

CHAPTER 2

THE DEVELOPMENT OF A PARTIAL PEP STORE MANAGER COMPETENCY STRUCTURAL MODEL

2.1 Introduction

Chapter 1 argued the importance of accurately understanding the manner in which job behaviours and job outcomes are interrelated for the purpose of managing human resources more effectively. In the ensuing chapter, core concepts relevant to this relationship will be discussed, as well as the functional relationships existing between these concepts. This is followed by a review on retail management competencies. Thereafter the process of developing the PEP store manager competency structural model will be explained. The chapter concludes by proposing a partial PEP store manager competency structural model by hypothesising specific causal relationships between the job behaviour of PEP store managers and salient store outcomes.

2.2 The role of behaviour

Behaviour is the mediator through which organisations manage human resources to achieve job outcomes. When organisations allege they are managing by objectives, they are nonetheless trying to control the behaviour leading to the job outcomes set as objectives. Specific behavioural objectives thus need to be derived from desired outcome objectives to make management by objectives succeed. Furthermore, interventions aimed at person-centred attributes are in actual fact attempts to influence the behaviour, which it underlies. This is, however, not saying that job outcomes or the psychological attributes underlying behaviour are less important in this management process. It is by understanding the complex *relationships* between behaviours, job outcomes and the psychological attributes underlying job behaviour that organisations can successfully manage their human resources.

The behavioural aspect of this relationship does however assume a central role in as far as it represents the observable human input into the production process and is

concerned with that which a worker must *do* to improve performance (Latham & Wexley, 1994; Noe, Hollenbeck, Gerhart & Wright, 2000). Viewed from a content orientated perspective (Binning & Barrett, 1998) behavioural competencies are for this very reason valuable for two assessment purposes since it serves both as a criterion and as a predictor, depending on where, when and for what reason it is measured. When measured in a specific job situation as an indicator of current job performance, it functions as a criterion. When, however, measured off the job in question as a substitute indicator of job performance, it functions as a predictor of job performance (C.C.Theron, personal communication, 9 February 2006).

Increased focus on behaviour started during the period of 1960-1979 when Industrial Psychology researchers shifted some of their original focus from job outcome measures and latent personal traits to behavioural measures of criteria, realising the contribution of job behaviour for assessing and managing human resource performance (Austin & Villanova, 1992). This changing perspective, together with practitioners' search for a tool accessible and comprehensible to the laymen, seems to have lead to the popularity of the competency approach (Cheng, Dainty & Moore, 2002; Lievens, Sanchez & De Corte, 2004; Markus, Copper-Thomas & Allpress, 2005; SHL Work Profiling System: Technical Manual, 1998).

In this sense the term *competency* has become a new-found label for describing the existing concept of behavioural regularities leading to job outcomes and generally refers to what a person must be able to *do* in order to be successful in a given job (Bartram, 2004; New, 1996; Theron, 2002). Although competencies have been adopted with much enthusiasm by organisations, literature reveals a more critical view of competencies (Lievens et al., 2004; Markus et al., 2005).

2.3 Literature review of the competency concept

Although this study uses the word competency almost interchangeable with behaviour, much conceptual ambiguity is still evident from recent literature (Cheng et al., 2002; Grzeda, 2004; Le Deist & Winterton, 2005; Lievens et al., 2004; Markus et al., 2005; New, 1996). Conceptual differences seem to centre on the words, competency and competence, and other terms (i.e. skills, knowledge, attitudes and

personal attributes) often used interchangeable with former the concepts. Markus et al. (2005) differentiate between competence, behavioural repertoires and organisational competencies. Competence refers to standard of performance with respect to functional job outcomes and originated from the educational discipline. The behavioural approach regards competencies as behavioural repertoires or sets of behaviours consisting of knowledge, motives, trait, self image and social roles and skills that impact on job outcomes. Organisational competencies or core competencies extends the idea of individual competencies to collective performance at a strategic level. Grzeda's (2004) reference to competing competence models (i.e. competence as an independent or dependent variable) seems in accordance with the competency versus competence distinction. He also makes a conceptual distinction between competencies and the constituencies of competencies i.e. attitudes, knowledge and underlying characteristics. Le Deist and Winterton (2005) propose a holistic framework for understanding competencies. Instead of viewing competencies as desirable behaviours and distinctive of its antecedents, they conceptualise four categories of competencies i.e. occupational required conceptual (cognitive, knowledge and understanding) and operational (functional, psycho-motor and applied skill) competencies as well as competencies required for individual effectiveness which also includes conceptual (meta-competence, learning to learn) and operational (social competence, including behaviours and attitudes) competencies.

Other prominent issues involve the scepticism surrounding the apparently less rigorous methods whereby competencies models are developed, the operationalising of competencies and the lack of empirical studies evaluating the relationship between competencies and objective job outcomes (Lievens et al., 2004; Markus et al., 2005). Nonetheless, it seems certain that competencies are here to stay and that the onus is on science to clarify the key concepts and empirically test implied theories (Markus et al., 2005).

2.4 Competency framework

Assessment group and pioneer in competency modelling, Saville and Holdsworth (SHL), developed a useful framework for conceptualising the relationships between

competencies, job outcomes and the psychological attributes underlying competencies. SHL's New Framework is illustrated below in Figure 2.1 and will be discussed in conjunction with Theron's (2002) definition of competencies:

Competencies are abstract representations of bundles of related observable behaviour, driven by a nomological network of [unknown] construct [competency potential] which, when exhibited on a job would constitute high job performance and would [probably, depending on situational constraints/opportunities] lead to job success defined in terms of output/the objectives for which the job exists. (p. 9)

The SHL perspective on competency modelling will be given some prominence in the subsequent discussion not only because of the conceptual merits of their framework but also because the framework had been used by PEP to analyse the nature of the PEP store manager position.

2.4.1 Competencies: Desired behaviours

SHL (Bailey, Bartram & Kurz, 2001, p. 5) defines competencies as "...sets of behaviours that are instrumental in the delivery of desired results". Theron (2002, p. 9) referred to, "...abstract representations of bundles of related observable behaviour". It is clear from these definitions that the focus is on observable human actions leading to job outcomes as indicated by arrow 2 in Figure 2.1. The behavioural action should nonetheless be seen and treated as observable expressions of abstract performance constructs. Hence Theron's (2002, p. 9) reference to competencies as "...abstract representations of bundles of related observable behaviour". As the relationship between these performance constructs and the outcomes they are meant to serve represents the primary focus of the study, it will be discussed in more detail in section 2.3.5.2.

2.4.2 Competency potential

Competency potential refers to the psychological attributes (e.g., aptitude, abilities, interests, values, motives and personality), as well as the qualifications and knowledge attained, that causally underlie desired behaviour. In this manner SHL

draws a distinction between *measures* of competency and measures that *predict* competency. It assumes that psychological dispositions and attainments (i.e. knowledge) are not competencies in itself, and first need to be exercised in the form of desirable behaviours to be classified as competencies (Bailey et al., 2001). Theron's (2002, p. 9) position that "...competencies are the abstract representations of bundles of related observable behaviour, driven by a nomological network of [unknown] constructs [competency potential] which, when exhibited on a job would constitute high job performance..." also points towards this distinction. The latter definition, moreover, also points to the fact that competency potential should fundamentally be interpreted as person constructs.

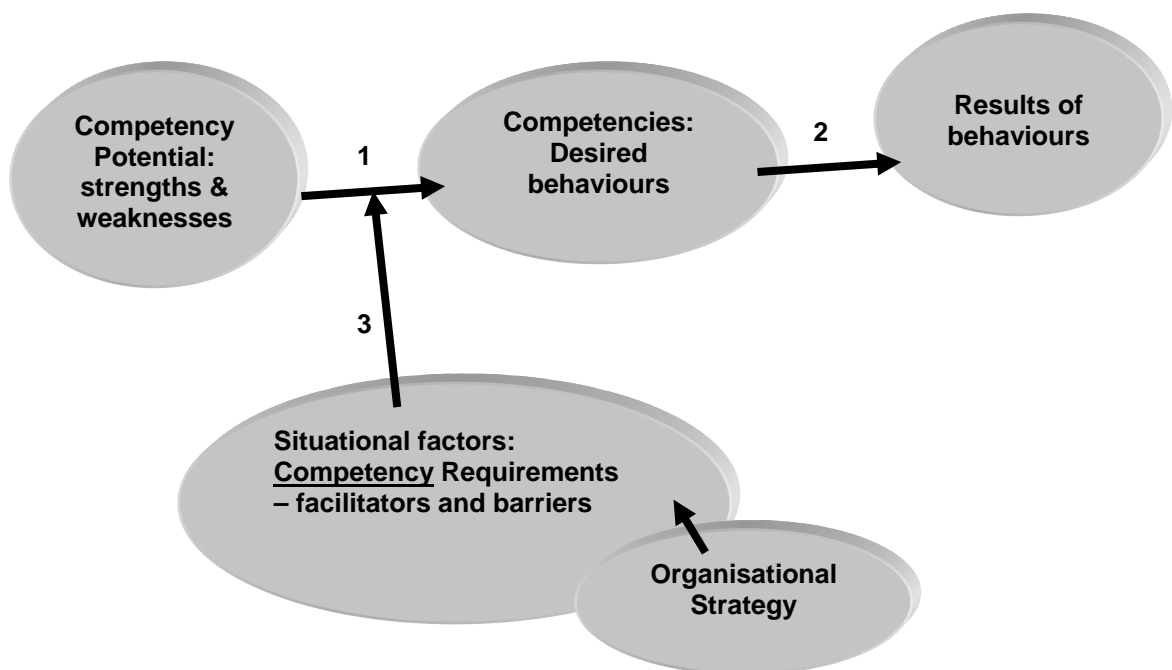


Figure 2.1 The relationship between competency potential, competency requirements and competencies (SHL Job Analysis and Competency Design Training Manual: Designing Competencies, 1994, p. 11)

Competencies are however often defined in a manner that does not make this distinction explicit, for example the common definition used by Saunders (2002, p. 37), "...important knowledge, skills, behaviours and personality attributes". This creates conceptual problems as it shifts the emphasis from "...what a person must be able to do" to also "...what a person must have". In this way it defeats the original

purpose of competencies to focus on the behaviour instrumental in the achievement of the outcomes that constitute success.

Understanding the relationship between competency and competency potential are also vital for assessment reasons, as will be explained in section 2.3.5.1.

2.4.3 Results of behaviour

SHL (Bailey et al., 2001, p. 5) describes results as, “The actual or intended outcomes of behaviour which have been defined either explicitly or implicitly by the individual, his or her line manager or the organisation”. Some have described this as the *hard criteria* since it usually refers to objective measures of success e.g. sales figures, the amount of boxes packed, the satisfaction of customers, etc (Cascio, 1998; Guion, 1965). Theron (2002, p. 9) refers to it as, “... job success defined in terms of output/the objectives for which the job exists”.

Hard criteria have intrigued researchers for many years since they argue it represents the economic worth of a job. Depending on why the measure was needed, some have advocated a composite measure while others made a case against it. Although prediction may justify a composite measure, it seems more fruitful not to combine job outcomes into a composite when used for the purpose of competency modelling. In many cases job outcomes are independent of each other and the value/valence attached to each outcome depends on who is conducting the evaluation (Austin & Villanova, 1992; Cascio, 1998; Ghiselli, 1956; Guion, 1965).

More importantly, however, a unique cause-effect relationship may exist between job outcomes, and understanding the manner in which job outcomes affect each other then becomes a prerequisite to explain how competencies indirectly affect distal outcome variables (Binning & Barrett, 1989; Kelloway, 1998). For example, it may be difficult to substantiate a direct link between a competency, *treating customers with respect* and an ultimate job outcome such as, *annual sales*, but not so relating the same competency to *customer satisfaction*, a job outcome for which it is far easier to find a direct causal link to *annual sales*.

2.4.4 Situational factors: Competency Requirements

According to the SHL framework, the realisation of competency potential into competencies will be influenced by the situational facilitators and barriers. SHL refers to factors such as effectiveness of communication channels, reporting relationships, and the general climate or culture within the organisation. In other words, even though someone may display competency potential, situational constraints may prevent it from leveraging into a competency (Bailey et al., 2001). The possibility of specific competency potential x situational facilitator/barrier interaction effects on the competence level achieved in competencies is thus acknowledged by the SHL competency framework. The slope of the regression of specific latent competency potential variables on specific latent competency variables could thus differ as a function of one or more moderating situational facilitator/barrier latent variables.

It moreover seems reasonable to argue that specific relationships/causal linkages existing between certain competencies and results are also affected by these so-called external facilitators and barriers. Exercising the ideal behaviour in a job does not guarantee job success as defined by the job outcomes. For example, although a sales person may display competence in customer service competencies such as *showing interest in the customer* and *providing them with adequate and detailed information about the product*, the customer may nevertheless be dissatisfied for reasons such as the rain outside, the quality of the product, the type of atmosphere in the store, etc. A 4th arrow is thus proposed in Figure 2.1, that indicates the impact of situational factors on the relationship between competencies and behaviours. It seems that Theron (2002, p. 9) also assumes this 4th arrow when stating in his previously cited definition of competencies that “Competencies ... when exhibited on a job would constitute high job performance and would [probably, depending on situational constraints/opportunities] lead to job success defined in terms of output/the objectives for which the job exists”.

2.4.5 Competency relationships

What makes SHL's competency framework valuable is that it focuses on behaviour/competencies in relation to job outcomes, and the underlying

psychological factors. This in line with the increased emphasis on models during the period 1980 - 1992. During that period researchers became attentive to the notion that all validity is related to construct validity. The criterion construct was now together with the predictor construct also being conceptualised as a structural domain, and the understanding of the interrelatedness of predictor and criterion constructs became important. Also, advancement in technology made multivariate analyses possible that advanced the acceptance of this perspective even further since complex structural models could now be tested empirically (Austin & Villanova, 1992).

A complete structural model would include competency potential, competencies and the outcomes/results. Competency modelling in a pure sense would therefore imply mapping competencies onto job outcomes, mapping latent competency potential variables onto competencies and integrating these into a structural model that helps to align human resource functions, i.e. recruitment and selection, training and development, performance management and compensation.

The complexity of such model however compels one, at least initially during the development of the model, to focus on the two different parts of the model separately. The competency potential-competency causal network forms one sub-domain of the model and the network of competency-results inter-relationships a second sub-domain. The former in essence unpacks and explicates the detail of what is traditionally described as the predictor-criterion relationship, whereas the second depicts the internal structure of the multi-dimensional criterion construct. Each part of the model will subsequently be discussed.

2.4.5.1 Relationship between competency potential and competencies (Arrow 1)

Understanding the relationship (indicated by arrow 1 in Figure 2.1) between competency potential and competencies is vital since selection decisions are predominantly based on competency potential measures. Even though a job applicant can also be assessed directly on the required competencies by simulating the job demands, instruments that elicit competency potential are usually already

standardised, faster and observers are seldom needed. Should the relationship between competency potential and competencies thus be unclear, it would imply that inferences about competencies, based on measures of competency potential, would be questionable (Wolfaardt & Roodt, 2005; SIOPSA, 2005).

For this reason, much empirical research has been conducted to validate relationships between behaviours and the underlying psychological attributes. This is probably the origin of SHL's competitive advantage. Through numerous research studies SHL have established an extensive network of relationships between competencies and the underlying psychological constructs that enable them to generalise and apply their findings across different organisations. By identifying the competencies, the relevant latent competency potential variables are automatically linked and in addition, standardised instruments have been developed to measure these underlying psychological attributes (SHL Work Profiling System Technical Manual, 1998; Occupational Personality Questionnaire Course Notes, 2004).

All this is however based on the assumption that the competencies, predicted from the person-attribute measures, are in fact relevant to the delivery of job outcomes. Since competencies are derived (via job analysis) from the results (job outcomes/objectives) for which the position had been created and competency potential from the derived competencies, the starting point in the development as well as the validation of a procedures aimed at improving performance should logically be the competency-results relationship. A discussion about this relationship between competencies and results follows.

2.4.5.2 Relationship between competencies and job outcomes/results of behaviour (Arrow 2)

Binning and Barrett (1989) observed that both behaviours and the job outcome results are part of the overall performance domain. The relationship between competencies and results should be conceptualised, similar to the competency-competency potential relationship, as a structural model consisting of a nomological network of causal relationships. Since the identification of the relevant competencies is central to the competency approach, and since the relevance of competencies are

inferred from job outcomes, understanding the competency-outcome relationship is of utmost importance. Another reason why it is important to view behaviour in relation to results is that it provides an indication of the relevant importance of specific individual competencies, thereby enabling criterion developers to attach a weight to specific performance areas (Cascio, 1998).

Despite this, it seems that researchers have not given sufficient attention to models reflecting the relationship between competencies and results. One reason may be that such models may require plenty of additional research about business operations and once developed and tested such models will probably not be easily generalised since job content and job objectives are determined by management and thus vary across organisations.

2.5 The need for structural based competency models reflecting the competency – job outcome relationship

It is important to note that regardless of which SHL job analysis output report is chosen, their generic competency models do not explicitly show the relationships with the job outcomes of the particular job analysed. Reports consist of an inventory of generic competencies indicating the importance of each competency based on its perceived influence on the job objectives in general. Theoretically, SHL does acknowledge the competency – job outcome relationship, but nonetheless do not currently depict this relationship in the form of an explicit interrelated structure. This seemingly would still require extensive customized development work on their part.

In general, job analysis is an expert skill and short courses in competency design may not necessarily be sufficient for equipping practitioners to gather and integrate job information into comprehensive competency-job outcome structural models. Models developed in practice are often one dimensional cause-effect relationships rather than an interrelated network as in the case of competency-competency potential relationships (Cascio, 1998). And even when theoretical models reflecting such interrelationships have been developed, empirical testing, even though the technology is available, is a rare action. Validation is usually limited to comparing different methods of job analysis data or discussing the outcome with subject matter

experts (SME) (Markus et al., 2005; SHL Job Analysis and Competency Design Training Manual, 1994). Markus et al. (2005, p. 121) states that "...research of literature reveals only a handful of studies investigating the link between competencies and objective job performance..."

Although the SHL theoretical framework has provided much clarity regarding the interrelatedness of performance variables, an aspect requiring additional attention is models explicitly reflecting the competency-job outcome relationship. Adequate structural models should be developed to also describe the nomological network between job behaviours/competencies and results. Such models should also, as with competency-competency potential models, be tested empirically.

2.6 Limitations to structural based competency models reflecting the competency-job outcome relationship

Competencies that have not statistically been shown to significantly explain variance in theoretically related job outcomes cannot automatically be regarded as irrelevant behaviours. Possible reasons for insignificant relationships, other than false assumptions about competency-job outcome relations, may include inadequate measures and conceptual issues produced by differences in behavioural and job outcome terminology. Moreover, some behaviour for example, integrity, is generally accepted as a core organisational value, although it may not necessarily have a direct effect on a particular job outcome (Binning & Barrett, 1989; C.C. Theron, personal communication, 12 May 2005). Therefore empirical testing should never be regarded as a substitute to theoretical judgements, but rather as complimentary tool (Diamantopoulos & Siguaw, 2000). Nevertheless, empirical testing cannot be avoided due to these limitations since competencies in essence assume a systematic, normally but not necessarily, linear relationship with job outcomes. If, however, a methodologically sound study, in which plausible alternative explanations other than the substantive hypothesis of interest are effectively controlled, fails to support specific competency-outcome linkages the relevance of the competencies in question should be seriously questioned.

The following part of this chapter provides a literature review on retail management competencies and discusses the procedure that was followed in the development of the PEP store manager competency structural model. The various sources of information used in the development of the model and the nature of the model development process will be discussed, followed by an explication of the relationship between store manager competencies and store outcomes.

2.7 Literature review on retail manager competencies

Noticeable from the literature is that the topic of general management competencies is not a novel one (New, 1996). There seems, however, to be a lack of studies that focus on retail manager competencies. Research in the retail industry is more often concerned with job outcomes such as employee and customer satisfaction and the relation of these outcome variables to profitability without giving much attention to the managerial behaviours responsible for these outcomes (Borucki & Burke, 1999; Gomez, McLaughlin & Wittink, 2004; Keiningham, Aksoy, Daly, Perrier & Solom, 2005). The literature also seems to highlight the contextual and changing nature of competencies (Gilmore, 1998; Gilmore & Carson, 1996; Hernant, Andersson & Hilmola, 2007; New, 1996; Vakola, Soderquist & Prastacos, 2007).

Only one study (Porr & Field, 2006) could be found in the literature which specifically focuses (although not for the purpose of competency modelling) on the relationships existing between store manager competencies and job or unit outcomes. In this study Porr and Field (2006) evaluate the direction of the assumed link between ratings of convenience store manager behaviours and performance outcomes/unit performance. The authors hypothesise that specific behaviours are related to specific outcomes, e.g. human relation competencies are related to employee retention, monitoring competencies are related to internal business process performance and the ability to explain the need for change and empower employees is related to higher merchandise performance. Store management behaviour was measured by a leadership questionnaire originally developed and tested to demonstrate three metacategories (task, relations, and change behaviour) in leadership behaviour (Yukl, Gordon & Taber, 2002). The questionnaire was modified

in this study to make it more understandable for sales employees. The thirteen behaviours described by the questionnaire are indicated in Table 2.1.

Table 2.1 Competencies used in convenience store manager study

Competencies	Definitions
Clarifying roles and responsibilities	The communication of plans, policies, and role expectations.
Supporting	Showing consideration, acceptance, and concern for the needs and feelings of people.
External monitoring	Observing and recording the external environment in order to identify threats and opportunities.
Recognising	Giving praise and showing appreciation to others for effective performance, achievement, and contributions.
Short-term planning	Deciding what to do, how to do it, who will do it, and when it will be done.
Encouraging innovative thinking	Providing an environment where subordinates are inspired to create new ideas for improving the organisation.
Developing	Providing the opportunity to develop skills and confidence.
Consulting	Involving the followers in making important business decisions.
Monitoring operations	Gathering information about the operation, including progress and performance.
Envisioning change	Articulating and inspiring a concept of a better future.
Empowering	Delegating more autonomy and discretion to subordinates.
Taking risks for change	Willingness to stray from the accepted norms in order to improve organisational performance.
Explaining the need for change	Communicating the importance and inevitability of change within the organisation.

The results showed that the outcome variable most prominent for a particular group of raters (i.e. internal business process for subordinates and merchandising for regional managers) seems to correlate with all the behaviours rated by the respective group regardless of the theoretical relatedness. In addition, almost no significant correlations are found between the behaviours and the outcomes considered as less relevant by the respective groups. This according to the authors points out the effect of performance *halo* on behavioural ratings.

Gilmore and Carson (1996), wanting to identify specific service management competencies, considers sixteen often cited studies in the literature during 1949-1991 that attempted to identify general management competencies. They discover that these studies predominantly focus on senior level managers and that the competency models are rather specific to a particular managerial situation, organisation or industry. Drawing from these previous studies, but also focusing on the unique context of service management they identify a list of eight competencies which relate to specific service tasks:

- (1) Creativity is needed for product management pricing and communication
- (2) Motivation is needed for product management, communications, customer service and administration
- (3) Vision is needed in product management
- (4) Adaptability is needed for pricing
- (5) Communication is needed in communications management, customer service and administration
- (6) Coordination is needed for customer service
- (7) Leadership is needed for customer service
- (8) Analytical skills are needed for marketing administration

Gomez et al. (2004) investigate the linkages between customer satisfaction and sales performance and discuss the value of predictive models for resource allocation and the subsequent implication for management of customer satisfaction. Although, the role of management is acknowledged, no reference is made to the precise nature of competencies instrumental to customer satisfaction. A study by Gilmore (1998) evaluates service management competencies within a ferry company over a three-year period. He emphasises the contextual and dynamic nature of management competencies and the need to promote organisational learning. Another article argues that the critical success factors in terms of management competency requirements in retail stores are different for four different clusters of stores, each cluster representing a particular response to competitive conditions (Hernant et al., 2007).

New (1996) distinguishes between job specific competencies, corporate specific competencies and general management competencies i.e. action management,

change management, co-ordination, creativity, leadership, motivation, organising and planning. He acknowledges that the relevance of even the general management competencies will depend on the nature of the work and the level of management e.g. first-line manager versus managing director.

Although these previous research about managerial competencies could be useful for identifying important store manager competencies, this study aimed to develop a original store manager competency model by means of a specific, dedicated job analysis within the target company. Nonetheless, the literature provides a broad framework against which the outcome of the job analysis could potentially be evaluated. Especially the point raised by Hernant et al. (2007) that the competency requirements could vary across clusters of PEP stores should be kept in mind. The process of developing the PEP store manager competency model is discussed in the section that follows.

2.8 Development of PEP store manager competency structural model

To investigate and identify the job outcomes and derived competencies of any given position data are needed on various characteristics of the position. This requires that all relevant role players are involved in the process. In the case of Pep Stores, the researcher was fortunate that these conditions were largely satisfied. During the period 14 December 2004 – May 2006, information regarding PEP store managers and stores were gathered through various sources, ranging from job analyses, observations, existing store performance data and discussions with subject matter experts. Some of the main sources utilised to identify variables will briefly be discussed, whereas the measurement of these variables will be discussed in Chapter 3, *Research Methodology*.

A significant amount of information was gathered by following SHL's job analysis methodology and using their state of the art job analysis system, the Work Profiling System (WPS). Four independent WPS session were held on the dates, 25, 26, 27 January 2005 and 8 March 2005. Job analysis sessions were attended by between 4 and 6 store managers, 1 and 2 human resources managers, an area manager and between 1 and 2 analysers/facilitators. Although each store manager group had a

different profile in terms of turnover, floor size, etc, the job objectives seemed similar for the most part.

According to the SHL Job Analysis and Competency Design Training Manual (1994), the WPS utilises a deductive method of job analysis. By implication it makes inferences about specific features of the job based on existing knowledge of the job. The first instruction to the participating job analysis group was to identify the main objectives/job outcomes for which the job exists. Thereafter they had to select from a pile of cards (each representing a key activity/behaviour) those cards containing key activities which they considered to be most relevant for achieving the job outcomes identified. Once selected, they had to rate the key tasks (underlying each selected key activity) in terms of its specific importance for achieving the job outcomes, as well as the amount of time spend on the task.

After completion of the job analysis session, the WPS provides options for various reports including information such as the most important job activities and tasks for the position, person specifications in terms of competency models and competency potential (personality & cognitive attributes) and advisable methods of and instruments for assessment. The decision to request a particular report will depend on the analyser's specific needs and preferences. It has been mentioned earlier that SHL competency model reports do not explicitly reflect the relationships between competencies and job outcomes. Therefore, although the WPS assists in the process of mapping competencies on the job outcomes for a given position, the process of developing a competency-outcome structural model from the basic ingredients provided by the WPS continues to be largely a creative and rather complex theorising task that needs to be performed manually by the researcher.

After deciding which SHL reports would be most beneficial, the next step was to refine the information. This was done by integrating information from job descriptions, previous studies and interviews with job incumbents and finally checking inferences and conclusions with SMEs. Throughout this process, the focus was constantly on the linkages between competencies and job outcomes. Specific linkages were hypothesised by arguing the relevance of specific competencies for each of the identified latent outcome variables, and discussing its relevance with

SMEs. Near the final stages of the theoretical model, management felt that an additional competency should be included in the model, which they believed differentiates between good and poor store manager performance in PEP. To ensure adequate conceptualising of this additional competency and elicit samples of behaviour for construction of the measurement instrument, another formal job analysis session was held on 13 April 2006. For this session the Critical Incident Technique was used, and the session was attended by 2 senior operational managers, 2 senior human resource managers and the researcher.

Some of the labels used to represent the competencies may seem generic, but their uniqueness lies in the fact that they are conceptualised and measured in terms of distinctive PEP behaviours. Moreover, in addition to the feedback obtained from SME's, the empirical investigation of the model would also assist in the refinement of the initial competency factor structure. The measurement of competencies and envisaged statistical analyses for this study will be discussed in more detail in Chapter3.

The main building blocks used in the generation of SHL reports (SHL Work Profiling System Technical Manual, 1998) will briefly be discussed with comments on the advantages and disadvantages of each in terms of competency modelling.

2.8.1 SHL's key activities/functional competencies

The key activities are generated through the job description report and represent the tasks considered by the panel to influence job outcomes the most. They are also called functional competencies since the concern is here with the functional tasks of the job itself, e.g. customer service – *responding in a positive manner towards customer complaints*. The positive aspect about the functional competencies is that it describes behaviour in terms of what should be done on the job. The terminology is simple and it is relative easy linked to the job outcomes it supposedly influences. The negative aspect is that it is not SHL's intention that one should focus on the functional competencies for the purpose of competency modelling. For them, the functional competencies should rather be seen as an inventory of job tasks than behavioural characteristics. They consider the role of functional competencies

predominantly as a source of input data for determining a position's profile on the generic competency models.

2.8.2 SHL's generic competency models

Regardless of the position analysed, the profiling system will extract the same generic group of competencies. The key tasks, selected by the panel and rated according to importance and frequency, will determine the level of importance of each generic competency for the given position. According to Kriek (personal communication, 5 August 2005) each key task, underlying each key activity or functional competency, is linked to various generic competencies. These linkages were created by means of evaluators awarding weights of between 0-1 to each linkage, and cross-validating it on the basis of empirical and qualitative research.

Generic competency inventories represent taxonomies of general behaviours that across companies and jobs have proven to impact on job success defined in terms of outcomes. SHL has developed different generic competency inventories for various aspects of work, of which the Inventory on Management Competencies (IMC) and Perspectives on Management Competencies (PMC) are for managerial positions (SHL Work Profiling System Technical Manual, 1998). Large parts of SHL's research efforts during the past decade have however been spend on developing a generic, international competency model, called the Universal Competency Framework (UCF) (Bailey et al., 2001).

The UCF is said to incorporate all SHL's existing competency models, as well as other models in the market, and is based on a three-tier structure. The first tier or *deep* structure consists of 111 competency components as discrete behavioural building blocks. The second tier represents the fundamental competency components mapped onto 20 second-order competency dimensions, and the third tier is the loadings of the 20 second-order competency dimensions on 8 broad (third-order) competency factors. SHL argues the value of these 8 broad factors by empirically proving that the third-order competencies correlate with 8 psychological attributes generally accepted as representative of human behaviour and development, namely. *g* or general reasoning ability, the *Big Five* personality factors,

and two motivational factors – need for achievement and need for power or control (Bailey et al., 2001).

The value of SHL's generic competency models lies in the fact it is underpinned by extensive research. A study undertaken by SHL to test the relationships between personality factors (competency potential) and a particular generic competency inventory, the UCF, investigated the multiple correlations between United Kingdom managers' personality scores on the Occupational Personality Questionnaire (OPQ) and supervisory ratings of their job performance on the competencies. The study showed multiple correlations between 0.26 and 0.39 (OPQ Course Notes, 2004). By measuring an applicant with a competency potential instrument, one is able to generate a competency profile, which is a prediction of the person's scores on the various competency scales. If however the generic model would be altered in any way, the validity of such predictions would decrease because of the modification of the relationship between variables. The generic competencies also provide a common language and can be used across organisations and jobs. Although the terminology is behaviourally orientated, it is not so job specific as functional competencies, and thus can be used more easily across jobs without alterations.

The fact that the terminology is somewhat more abstract or rather distant from the job tasks itself does, however, create some difficulties when used for designing competency structural models reflecting the competency-job outcome relationship. Functional competencies are derived from job outcomes and generic competencies are generated from functional competencies, and therefore the generic competency models are theoretically more difficult to relate to job outcomes. In addition, it becomes difficult to justify using generic models as appraisal criteria in performance management due to its somewhat trait-like descriptions of behaviour. This counteracts one of the largest potential advantages of using competencies in human resources assessment, namely the potential of using the same behaviours to serve both as criteria and predictors.

2.8.3 SHL's human attribute model

The human attribute model is a taxonomy of human abilities comprising SHL's inventories of psychological attributes and mapped onto WPS tasks and context statements. As part of the WPS job analysis process, the human attribute model uses the data input from the key activities/functional competencies, as well as contextual input to identify which abilities and personality attributes are most relevant for a particular job.

According to SHL's technical manual this model was developed before the competency models were developed (SHL Work Profiling System Technical Manual, 1998). Since psychological attributes are abstract constructs, mostly utilised by psychologists and difficult to incorporate into business language, the need for competency terminology was initiated. These difficulties led to the development of SHL's competency models.

In addition to the linkages between Human Attribute Model and WPS tasks and statements (functional competencies), SHL has researched the relationships between the Human Attribute Model and its competency model counterparts (SHL Work Profiling System Technical Manual, 1998). This, as described earlier, enables them to predict an individual's scores on the various competency factors, comprising a competency model, through assessment on the relevant competency potential instruments.

Examining the Human Attribute Model assists in answering the question whether functional competencies can be used as competencies. Theoretically, SHL argues that competency potential, (i.e., underlying psychological attributes), are derived from competencies. The fact that a Human Attribute profile (i.e. competency potential) is derived from scores on the WPS key tasks and statements (functional competencies) should then logically support the idea that functional competencies can be viewed as competencies/behaviours.

Even though this is not recommended by SHL (J. Struwig, personal communication, 25 May 2005) the researcher found it useful, in conjunction with the generic models,

to predominantly make use of the functional competencies. The main motivation for choosing the functional competencies to represent competencies in the proposed store manager competency structural model is that it is theoretically easier to relate to the job outcomes than the generic competencies, since they are directly derived on the basis of their relationship to job outcomes. This concern to minimise the level of inferences seems to be in line with Lievens et al. (2004) appeal to integrate competency modelling with traditional job analysis methods to ensure that competencies are derived more closely in relation to specific job tasks.

One of SHL's rather detailed reports which the researcher found valuable, especially since more than one independent job analysis session were conducted, is the SHL Technical report. This report provided summative information of the different job analysis sessions by describing the agreement between raters across the 4 sessions in terms of the importance of and time spent on each functional competency/key activity, and the key tasks underlying it.

2.9 The PEP store manager competency structural model

The job outcomes and competencies for the position of PEP store manager will subsequently be examined. Since competencies are derived from job outcomes, the discussion will start with the job outcomes, as well as the interrelationship between the job outcomes themselves. Thereafter, the focus will be on the competencies thought to influence the job outcomes.

2.9.1 Store outcomes/objectives

As explained above, job outcomes represent the output/objective for which the job exists. Each job outcome will be constitutively defined, be briefly discussed and thereafter the possibility of causal relationships between job outcomes will be investigated

2.9.1.1 Store Profitability

This latent outcome variable represents the overall profitability/performance of the store and can be defined as the difference between sales and costs in relation to the capital investment in the store. Even though store managers are not directly evaluated in terms of this objective, and it is therefore not included in the performance model being tested, it should nevertheless be acknowledged as the main purpose of the job.

2.9.1.2 Sales Performance

Sales performance refers to store's success in turnover in relation to its size, location, market potential and previous sales performance.

2.9.1.3 Stock Loss Control

Stock loss is defined as merchandise lost either through thefts or through technical mistakes or omissions, e.g. incorrect administrative procedures. Stock loss control refers to the extent that the manager is successful in preventing or minimising stock loss.

2.9.1.4 Financial/Administrative Efficiency

This latent outcome variable comprises compliance with general administrative procedures in the store e.g. cash-up, personnel administration, mark-downs etc. It also includes the management of a budget. The budget represents money allocated to specific operational expenses in stores, e.g. wages for temporary staff, security guards, electrical services, parking expenses, telephone and postage, stationary and printing etc. Responsibility for the purchasing and delivery of stock is however centralised.

2.9.1.5 Marketing Effectiveness

This latent outcome variable refers to compliance with the general marketing standards of the store, e.g. maintaining corporate image, window and shelf display, outside promotional activities, customer service, stock rotation for promotional visibility, general housekeeping, image of each department and sales promotions.

2.9.1.6 Customer Satisfaction

This latent outcome variable represents the extent to which customers are satisfied with the store's customer service, products, lay-out and general atmosphere.

2.9.1.7 Staff Capacity

This outcome factor represents the energy/motivation with which reporting staff perform their duties, as well as the extent to which staff have direction/focus in their work. Energy/motivation refers to the staff's commitment towards the store and its objectives, whereas direction/focus refers to the extent that staff members are trained/directed and thus have an understanding of what is required of them in terms of what, how, when and at which standards tasks should be performed.

Together, motivation/intention and direction/focus/knowledge unleash staff capacity. Staff capacity can be also be defined as *driven* staff. The South African Pocket Oxford dictionary (Branford, 1987) explains driven as "...urge in some direction". The *urge in some direction* can then be seen as the energy/motivation which is channelled through appropriate direction/focus/knowledge.

2.9.1.8 Staff Satisfaction

This latent outcome variable refers to the extent to which staff is satisfied with their tasks, rewards, supervision and the overall atmosphere in the store.

2.9.2 Relationships between job outcomes/objectives

The direct causal relationships assumed between the job outcomes as defined above will be discussed next. The proposed causal relationships between these job outcomes and the identified set of store manager competencies will follow thereafter.

Store Profitability is hypothesised to be directly affected by Sales Performance and cost related outcomes, namely Financial/Administrative Efficiency and Stock Loss Control. Since these latent variables all influence net profits, they have an impact on the general accepted profitability ratio Return of Total Assets, whereby net profits are divided by total assets (Gitman, 2000).

Sales Performance is in turn hypothesised to be a function of Customer Satisfaction and Marketing Effectiveness. Customers who have positive shopping experiences will be more likely to buy, return in the future and spread *positive word of mouth* (Schiffman & Kanuk, 2000; Zeithaml & Bitner, 2000). In this sense, Customer Satisfaction can also be seen as potential future sales. Effective Marketing is also hypothesised to directly influence sales since effective placement and display of stock contributes to the decision to buy (Terblanché, 1998).

Stock Loss Control is hypothesised to be influenced by Financial/Administrative Efficiency, as well as Marketing Effectiveness. Central Office attempts to control irregularities by implementing standard administrative procedures that regulate the receiving, storing and outflow of stock in the store, as well as procedures for counting stock, making price adjustments on the systems etc. Stock loss should be affected to the extent that these administrative procedures are complied with. In the same manner effective marketing should ensure orderly housekeeping of stock on the floor and storeroom, preventing stock loss.

Financial/Administrative Efficiency is hypothesised to be directly influenced by the job outcome, Staff Capacity. Sales assistant and supervisors are responsible for a variety of administrative tasks in the store, e.g. maintaining records, cash-up procedures, etc. When staff is motivated and are well instructed on their

responsibilities they will be more likely to comply with these administrative procedures.

Marketing Effectiveness is also hypothesised to be directly affected by Staff Capacity. Sales assistants that are motivated, feel confident and know exactly what is required of them are more likely to successfully perform the individual tasks associated with accepted marketing standards (Gibson, Ivancevich & Donnelly, 2000).

Customer Satisfaction is hypothesised to be a function of Marketing Effectiveness and Staff Capacity. Research about shop lay-out and marketing displays suggests that the overall display of stores, neatness, promotions, availability of stock etc. have an influence on customers' shopping experience and satisfaction (Terblanché, 1998). Staff Capacity influences Customer Satisfaction in the sense that staff which is well-directed and are committed to the objectives of the store will be better equipped and willing to conform to (or surpass) display, neatness, stock availability and promotional standards and to help customers, in this manner directly increasing Customer Satisfaction.

Staff Capacity is hypothesised to be influenced by Staff Satisfaction. Research about leadership suggests that workers are more committed to work objectives when they are satisfied with the work context and with the leader supervising and directing them (Yukl, 2002).

Staff Satisfaction is hypothesised to be affected by Stock Loss Control, Sales Performance and Marketing Effectiveness. Stock loss and Sales Performance according to PEP's operational human resource manager, Davie Louw (personal communication, 31 January 2006), affects the atmosphere in the whole store. Most probably, it influences the feedback/reward to staff, which in turn affects staff's satisfaction with the leader and the performance of the store. Since staff is directly held responsible for the Marketing Effectiveness of departments (in terms of housekeeping/neatness) allocated to them, marketing success can be expected to influence feedback/reward and perceptions of fairness which all determines staff satisfaction (Gibson, Ivancevich & Donnelly, 2000).

2.9.3 Competencies of PEP store managers

The competencies listed below refer to the desired PEP Store Manager behaviours instrumental to the job outcome/objectives discussed above. Each competency will subsequently be constitutively defined and the nature of possible causal relationships with job outcomes will be examined. The PEP store manager competencies that emerged from the job analysis will subsequently briefly be compared to the retail manager competencies identified from the literature (section 5.2). Finally, the performance structural model emerging from the discussion of the hypothesised relationships is schematically displayed in Figure 2.2.

2.9.3.1 Planning and Organising

This latent competency variable refers to the establishment of a course of action for self and staff to accomplish specific goals, e.g. deciding on store objectives, prioritising store activities, scheduling store activities etc. When exhibiting these behaviours competently, store managers will more likely be effective and efficient in the performance of their administrative duties. They will also plan the store expenditure in such way that it does not exceed the budget. In addition to Financial/Administrative Efficiency, the competency is hypothesised to also influence Marketing Effectiveness. Upholding marketing standards requires daily and weekly planning and implementing, e.g. drawing up staff schedules and preparation for promotions.

2.9.3.2 Controlling

This competency is defined as checking and monitoring information and store activities/performance in terms of set objectives and includes behaviours such as determining realistic targets, checking work outcomes, monitoring performance, etc. Although many administrative tasks are performed by staff, these tasks nonetheless need to be monitored and checked for errors. Store managers must also monitor the expenditure. Controlling is therefore hypothesised to affect the store's Financial/Administrative efficiency.

The store manager's success in controlling activities is also hypothesised to affect Marketing Effectiveness. To ensure that marketing standards are maintained the store manager must be alert to any deviation from the standard. The store manager must check to see if work has been carried out to specification and be able to implement corrective and preventative measures.

2.9.3.3 Supervising and Directing

Performing this competency involves providing staff with a clear sense of direction by giving verbal instructions, establishing standards performance, making staff accountable and maintaining a physical presence and other similar tasks. When staff is directed by clear instructions, communicated with in an understandable manner and made accountable for tasks, they will more likely know what is expected of them, and this is hypothesised to increase Staff Capacity.

2.9.3.4 Motivating

Motivating refers to behaviour through which the store manager inspires staff and gains their commitment for following objectives. When store objectives and team work are constantly emphasised and interpersonal conflict resolved by the manager in a manner perceived by employees to be fair, it would probably appeal to the staff motivation/commitment (Yukl, 2002; Gibson et al., 2000), thereby influencing Staff Capacity. By trying to understand the needs of staff, showing interest and aiming to resolve interpersonal conflict fairly and giving recognition for performance store managers will most likely also influence the staff's level of satisfaction with aspects such as work context and supervision (Yukl, 2002; Gibson et al., 2000).

2.9.3.5 Coaching

The latent competency variable Coaching is behaviour concerned with timely guidance and feedback in order to develop staff; strengthening specific knowledge and/or skills areas needed to accomplish a task or solve problems. This is hypothesised to affect Staff Capacity since coaching should assist staff in understanding which actions are critical to performance.

2.9.3.6 Sales Focus

Sales Focus represents the behavioural expression of the commercial orientation of store managers. Sales Focus or *Retail Judgement* refers to sales/marketing *know-how* and demonstrating an understanding of how such activities impact sales. The Sales Focus competency has two related components, *know-how* with face to face customers (direct customer service) and *know-how* with marketing of the store (indirect customer service). Typical behaviours are developing customer relationships by relating comfortably and enthusiastically to customers, making an effort to listen to and understand customers, building store image, concentrating on sales generating activities, evaluating sales/marketing success and positioning stock to sell.

By focussing on sales generating activities (e.g. positioning stock to sell) and customer needs, the store manager would probably be more successful in terms of Marketing Effectiveness. It also seems reasonable to contend that store managers directly induce a positive shopping experience by means of behaviours such as personal attention and handling complaints effectively. People buy products or services to satisfy particular needs and store managers that are able to understand the needs of their customers should therefore be more successful in satisfying customers, thereby influencing Customer Satisfaction (Terblanché, 1998; Zeithaml & Bitner, 2000).

2.9.3.7 Comparison of the PEP store manager competencies to the retail manager competencies identified from the literature

The following should be noted when comparing the PEP store manager competencies derived via job analyses performed on the PEP store manager position with the retail manager competencies derived from the literature. The leadership questionnaire (Yukl, et al., 2002) modified and used by Porr and Fields (2006) was originally developed to measure leadership in general and not specifically first line management. In addition, the service competency model developed by Gilmore and Carson (1996) refers to a variety of service related positions with numerous tasks and responsibilities that not form part of a store

manager's job description. Nevertheless, eight out of the thirteen competencies measured by Porr and Fields (2006) seem to broadly correspond to five of the store manager competencies derived from the job analysis. The sixth competency that emerged from the PEP job analysis (Sales Focus) does not correspond to any of the competencies identified by Porr and Fields (2006). Four of the competencies not included in the PEP store manager competency structural model are concerned with the leadership category of managing change, which in the context of PEP, seem less relevant to the position of first-line manager. The fifth competency not included in the PEP store manager competency structural model, Encouraging Innovative Thinking, also seems less critical in the structured environment in which PEP store managers and assistants operate.

2.9.4 Proposed PEP store manager competency structural model

The foregoing discussion logically culminates in the PEP store manager performance structural model depicted in Figure 2.2. Store manager performance encompasses the outcomes for which the store manager is held accountable as well as the behaviours that drive these outcomes. The structural model depicted in Figure 2.2 reflects the salient PEP store manager competencies and outcomes identified in the foregoing discussion and reflects the manner in which the former are in terms of the foregoing argument hypothesised to causally impact on the latter. The model, moreover, reflects the assumption that a complex causal interplay exists between the store manager latent outcome variables. Specific proximal latent outcome variables are hypothesised to mediate the effect of store manager competencies on more distal latent outcome variables. Some of the more distal latent outcome variables, moreover, are hypothesised to exert a feedback effect on some of the proximal latent outcome variables.

The objective developing the PEP store manager performance structural model is to find a close fitting, parsimonious model. Latent competency variables are not necessarily expected to directly affect the more distal latent outcome variables but rather to indirectly affect these outcomes through more proximal mediating latent outcome variables. Even though the aim was to include all critical linkages between the latent competency and outcome variables in the proposed model, it should be

acknowledged that there could also be other potential linkages between these latent variables that have been overlooked in the foregoing theoretical argument. A more comprehensive approach, moreover, would have been to also provide a theoretical rationale for the absence of direct linkages between unconnected latent variables in the model (Diamantopoulos & Siguaw, 2000).

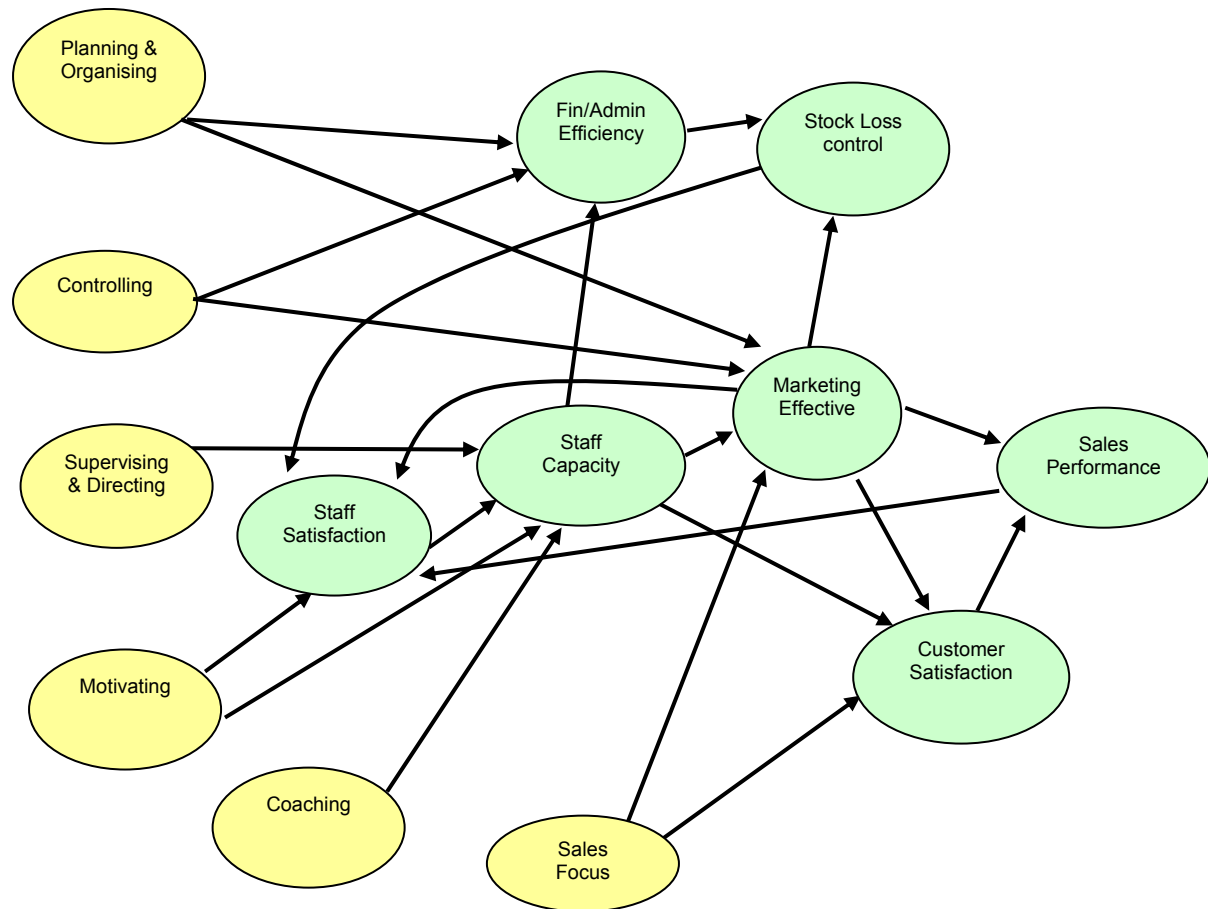


Figure 2.2 Structural model reflecting the relationships between PEP Store Manager competencies and store outcomes ²

2.10 Summary

This chapter presented a theoretical overview of competency modelling and its elements, and more specifically the possible causal relationships between PEP store

² Latent variables coloured in yellow represents exogenous variables and latent variable in green represents endogenous variables

manager job competencies and salient job/store outcomes. The following chapter will give an explanation of the research methodology used for empirically testing the plausibility of the hypothesised structural model.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

Chapter 1 stated that the purpose of the study is to develop and test a PEP store manager competency structural model that reflects the impact of store manager behaviours/competencies on their store performance outcomes. It has been argued that an empirical verification of such a performance structural model would, among other benefits, serve as justification for utilising the theoretically derived store manager competencies for selection purposes (either as criterion measures and/or as content orientated predictors (Binning & Barrett, 1998)). A theoretical overview of competencies in relation to job outcome/objectives and person-centred attributes was provided in Chapter 2. The same chapter discussed the development of the PEP store manager competency structural model and presented a theoretical argument on the manner in which the identified store manager competencies are expected to affect the relevant store latent outcome variables.

Chapter 3 discusses the process whereby the theoretical PEP store manager competency structural model will be empirically tested, and includes the research problems and substantive research hypotheses, the research design, the statistical hypotheses, the measuring instruments and resultant measurements, selection of the sample, the statistical analyses and limitations of the chosen methodology.

3.2 Research problems and substantive research hypotheses

The following research problems and research hypotheses can be formulated.

3.2.1 Overarching model-directed research problems and substantive research hypotheses

Problem 1: Can the specific job competency (exogenous) measurement model, reflecting the manner in which the latent variables express themselves in the

indicator variables (i.e. the proposed factor structure), successfully explain the manner in which the job competency indicator variables covary?

Hypothesis 1: The specific job competency (exogenous) measurement model, reflecting the manner in which the latent variables express themselves in the indicator variables (i.e. the proposed factor structure), successfully explains the manner in which the job competency indicator variables covary.

Problem 2: Can the specific job outcome (endogenous) measurement model, reflecting the manner in which the latent variables express themselves in the indicator variables (i.e. the proposed factor structure), successfully explain the manner in which the job outcome indicator variables covary?

Hypothesis 2: The specific job outcome (endogenous) measurement model, reflecting the manner in which the latent variables express themselves in the indicator variables (i.e. the proposed factor structure), successfully explains the manner in which the job outcome indicator variables covary.

Problem 3: Can the specific processes or paths hypothesised by the PEP store manager competency structural model portrayed in Figure 2.2 successfully explain the manner in which the indicator variables representing the latent competency and outcome variables comprising the model covary?

Hypothesis 3: The specific processes or paths hypothesised by the PEP store manager competency structural model portrayed in Figure 2.2 successfully explains the manner in which the indicator variables representing the latent competency and outcome variables comprising the model covary.

3.2.2 Specific path-directed research problems and substantive research hypotheses

Problem 4: Does the store outcome, Customer Satisfaction, affect the store outcome, Sales Performance?

Hypothesis 4: There is a causal relationship between the store outcomes, Customer Satisfaction and Sales Performance with Customer Satisfaction positively affecting Sales Performance.

Problem 5: Does the store outcome, Marketing Effectiveness, affect the store outcome, Sales Performance?

Hypothesis 5: There is a causal relationship between the store outcomes, Marketing Effectiveness and Sales Performance with Marketing Effectiveness positively affecting Sales Performance.

Problem 6: Does the store outcome, Financial/Administrative Efficiency, affect the store outcome, Stock Loss Control?

Hypothesis 6: There is a causal relationship between the store outcomes, Financial/Administrative Efficiency and Stock Loss Control with Financial/Administrative Efficiency positively affecting Stock Loss Control.

Problem 7: Does the store outcome, Marketing Effectiveness, affect the store outcome, Stock Loss Control?

Hypothesis 7: There is a causal relationship between the store outcomes, Marketing Effectiveness and Stock Loss Control with Marketing Effectiveness positively affecting Stock Loss Control.

Problem 8: Does the store outcome, Staff Capacity, affect the store outcome, Financial/Administrative Efficiency?

Hypothesis 8: There is a causal relationship between the store outcomes, Staff Capacity and Financial/Administrative Efficiency with Staff Capacity positively affecting Financial/Administrative Efficiency.

Problem 9: Does the competency, Planning and Organising, affect the store outcome, Financial/Administrative Efficiency?

Hypothesis 9: There is a causal relationship between the competency, Planning and Organising, and the store outcome, Financial/Administrative Efficiency with Planning and Organising positively affecting Financial/Administrative Efficiency.

Problem 10: Does the competency, Controlling, affect the store outcome, Financial/Administrative Efficiency?

Hypothesis 10: There is a causal relationship between the competency, Controlling, and the store outcome, Financial/Administrative Efficiency with Controlling positively affecting Financial/Administrative Efficiency.

Problem 11: Does the store outcome, Staff Capacity, affect the store outcome, Marketing Effectiveness?

Hypothesis 11: There is a causal relationship between the store outcomes, Staff Capacity and Marketing Effectiveness with Staff Capacity positively affecting Marketing Effectiveness.

Problem 12: Does the competency, Planning and Organising, affect the store outcome, Marketing Effectiveness?

Hypothesis 12: There is a causal relationship between the competency, Planning and Organising, and the store outcome, Marketing Effectiveness with Planning and Organising positively affecting Marketing Effectiveness.

Problem 13: Does the competency, Controlling, affect the store outcome, Marketing Effectiveness?

Hypothesis 13: There is a causal relationship between the competency, Controlling, and the store outcome, Marketing Effectiveness with Controlling positively affecting Marketing Effectiveness.

Problem 14: Does the competency, Sales Focus, affect the store outcome, Marketing Effectiveness?

Hypothesis 14: There is a causal relationship between the competency, Sales Focus, and the store outcome, Marketing Effectiveness with Sales Focus positively affecting Marketing Effectiveness.

Problem 15: Does the store outcome, Marketing Effectiveness, affect the store outcome, Customer Satisfaction?

Hypothesis 15: There is a causal relationship between the store outcomes, Marketing Effectiveness and Customer Satisfaction with Marketing Effectiveness positively affecting Customer Satisfaction.

Problem 16: Does the store outcome, Staff Capacity, affect the store outcome, Customer Satisfaction?

Hypothesis 16: There is a causal relationship between the store outcomes, Staff Capacity and Customer Satisfaction with Staff Capacity positively affecting Customer Satisfaction.

Problem 17: Does the competency, Sales Focus, affect the store outcome, Customer Satisfaction?

Hypothesis 17: There is a causal relationship between the competency, Sales Focus, and the store outcome, Customer Satisfaction with Sales Focus positively affecting Customer Satisfaction.

Problem 18: Does the store outcome, Staff Satisfaction, affect the store outcome, Staff Capacity?

Hypothesis 18: There is a causal relationship between the store outcomes, Staff Satisfaction and Staff Capacity with Staff Satisfaction positively affecting Staff Capacity.

Problem 19: Does the competency, Supervising and Directing, affect the store outcome, Staff Capacity?

Hypothesis 19: There is a causal relationship between the competency, Supervising and Directing, and the store outcome, Staff Capacity with Supervising and Directing positively affecting Staff Capacity.

Problem 20: Does the competency, Motivating, affect the store outcome, Staff Capacity?

Hypothesis 20: There is a causal relationship between the competency, Motivating, and the store outcome, Staff Capacity with Motivating positively affecting Staff Capacity.

Problem 21: Does the competency, Coaching, affect the store outcome, Staff Capacity?

Hypothesis 21: There is a causal relationship between the competency, Coaching, and the store outcome, Staff Capacity with Coaching positively affecting Staff Capacity.

Problem 22: Does the store outcome, Sales Performance, affect the store outcome, Staff Satisfaction?

Hypothesis 22: There is a causal relationship between the store outcomes, Sales Performance and Staff Satisfaction with Sales Performance positively affecting Staff Satisfaction.

Problem 23: Does the store outcome, Stock Loss Control, affect the store outcome, Staff Satisfaction?

Hypothesis 23: There is a causal relationship between the store outcomes, Stock Loss Control and Staff Satisfaction with Stock Loss Control positively affecting Staff Satisfaction.

Problem 24: Does the store outcome, Marketing Effectiveness, affect the store outcome, Staff Satisfaction?

Hypothesis 24: There is a causal relationship between the store outcomes, Marketing Effectiveness and Staff Satisfaction with Marketing Effectiveness positively affecting Staff Satisfaction.

Problem 25: Does the competency, Motivating, affect the store outcome, Staff Satisfaction?

Hypothesis 25: There is a causal relationship between the competency, Motivating, and the store outcome, Staff Satisfaction with Motivating positively affecting Staff Satisfaction.

3.3 Research design

The structural model derived from the literature study and depicted in Figure 2.2 hypothesises specific structural relationships between the latent store manager competency and the outcome variables. The validity of these hypothesised relationships is to be investigated empirically. The research design defines a framework that will regulate the manner in which the validity of the hypothesised relations among the latent variables (see paragraph 3.2) will be examined. The function of the research design is to try and ensure empirical evidence that can be interpreted unambiguously for or against the stated hypotheses. The research design achieves this through control of variance in the measures of the endogenous variables. More specifically the primary function of a research design is to maximize systematic variance, to minimise error variance and to control systematic non-relevant variance (Kerlinger & Lee, 2000).

An *ex post facto* correlational design is used in this field study. According to Kerlinger and Lee (2000), *ex post facto* research is a systematic empirical inquiry characterized by the fact that the researcher does not have direct control of the independent variables as their manifestations have already occurred or because they are inherently not manipulable. Experimental manipulation and random assignment are not possible (or not utilised) in *ex post facto* research. The purpose of *ex post facto* research, as with experimental research, is to test the empirical

validity of the statement “if ξ then η ”. An *ex post facto* design differs from an experimental design in the lack of direct control that the scientist has in controlling variance in the dependent variable(s) through these two design characteristics (Babbie & Mouton, 2001; Kerlinger & Lee, 2000). Inferences about the hypothesised relation existing between the latent variables ξ and η are made from concomitant variation in independent and dependent variables (Kerlinger & Lee, 2000).

Ex post facto research designs have three major interrelated shortcomings (Kerlinger & Lee, 2000), namely the inability to manipulate the independent variables, the lack of power to randomise and the risk of improper interpretation. When compared to experimental designs, *ex post facto* research designs lack control and erroneous interpretations may result due to the possibility of alternative explanations for the obtained difference or correlation other than the substantive hypothesis of interest (Kerlinger & Lee, 2000). Kerlinger and Lee (2000) therefore warn that results from *ex post facto* research should be interpreted with caution.

The objective of this study is to establish the nature of causal linkages between store management competencies and store outcomes. The argument unfolded by the literature study resulted in a structural model depicting the manner in which the PEP store management competencies are expected to influence the latent store outcome variables considered important by PEP. The danger exists that good model fit could be interpreted to have proven these causal hypotheses. The *ex post facto* nature of the research design, however, will preclude the drawing of conclusive causal inferences from close model fit.

3.4 Statistical hypotheses

As the proceeding hypotheses will be tested via structural equation modelling (SEM) utilising the LISREL software (Du Toit & Du Toit, 2001) rather than conventional regression and correlation analysis, this method of statistical analysis will be briefly introduced and some of the symbols used in the formulation of the statistical hypotheses will be defined.

Tabachnick and Fidell (2007) recommend structural equation modelling (SEM) as the preferred method of analysis when evaluating a complex hypothesis comprising more than one dependent and independent latent variable. LISREL, an acronym for Linear Structural RELationships, is a popular computer programme used for SEM, which in effect is covariance structure analysis (Diamantopoulos & Siguaw, 2000).

The Greek letter beta (β_{ij}) indicates a single directional relationship between two endogenous variables (η_i and η_j) (i.e. variables influenced by other variables in the model), whereas the Greek letter gamma (γ_{ij}) specifies a single directional relationship between an exogenous variable (ξ_j) (i.e. a variable always acting as an independent variables) and an endogenous variable (η_i). These symbols can be interpreted (assuming a standardised solution) as standardised partial regression coefficients or beta weights (Kelloway, 1998). Structural error terms (ζ_i) associated with each endogenous variable (η_i), however, acknowledge that the hypothesised structural model is unable to fully explain the variance in η_i in terms of the regression of η_i on η_j and ξ_j . The direction of the hypothesised linkages is indicated by the subscript next to β or γ , (e.g. β_{13}), where the first number signifies the target variable and the second the source variable (Diamantopoulos & Siguaw, 2000).

The expression $\Sigma = \Sigma(\theta)$ signifies the fundamental exact fit hypothesis in SEM, and is concerned about how good the theoretical relationships specified in the model, and the estimation thereof, corresponds with the actual observed data. Σ indicates the observed population covariance matrix, θ symbolises a vector of estimated model parameters, and $\Sigma(\theta)$ represents the (estimated) covariance matrix between the observed variables in the model expressed as a function of the model parameters (Diamantopoulos & Siguaw, 2000). Contrary to traditional hypothesis testing, the researcher would want the hypothesis $\Sigma = \Sigma(\theta)$ not to be rejected, meaning that a significant difference between the observed population covariance matrix and covariance matrix derived from the model, could not be found. This would imply that the theoretical model fits the data in the sense that it succeeded in reproducing the observed population covariance matrix exactly. Exact model fit does, however, not empirically demonstrate causality. Also, there may be other models fitting the data equally well or even better.

In reality, the only available observed data is the sample covariance matrix (S). The covariance matrix derived from the estimated model parameters is again compared to the sample covariance matrix. The critical question is whether the obtained sample difference between the observed sample covariance matrix and the reproduced covariance matrix could have arisen by chance under the exact fit null hypothesis that $\Sigma = \Sigma(\theta)$. The null hypothesis of exact model fit is, moreover, rather unrealistic. Browne and Cudeck (1993) consequently argue:

In applications of the analysis of covariance structures in the social sciences it is implausible that any model that we use is anything more than an approximation to reality. Since a null hypothesis that a model fits exactly in some population is known a priori to be false, it seems pointless even to try to test whether it is true.
(p. 137)

For this reason, the hypothesis of approximate (or close) fit is usually stated in addition to the hypothesis of exact fit (MacCallum, Browne & Sugawara, 1996). It is also standard practice in SEM (Diamantopoulos & Siguaw, 2000) to first test the fit of the measurement model reflecting the relationship between factors/latent variables and their indicators and if adequate fit is evident to only then test the fit of the structural model reflecting the hypothesised causal linkages between the latent variables themselves (i.e. the structural model). In this study the X (exogenous) measurement model signifies the measurement of the job competencies, whereas the Y (endogenous) measurement model refers to the measurement of the latent job outcome or store performance variables.

The reader is referred to section 3.7 for more detail in this regard. The statistical hypotheses are stated below. The structural model explicitly reflecting these relationships is again provided in Figure 3.1 but now with the relevant LISREL symbols superimposed on the original model.

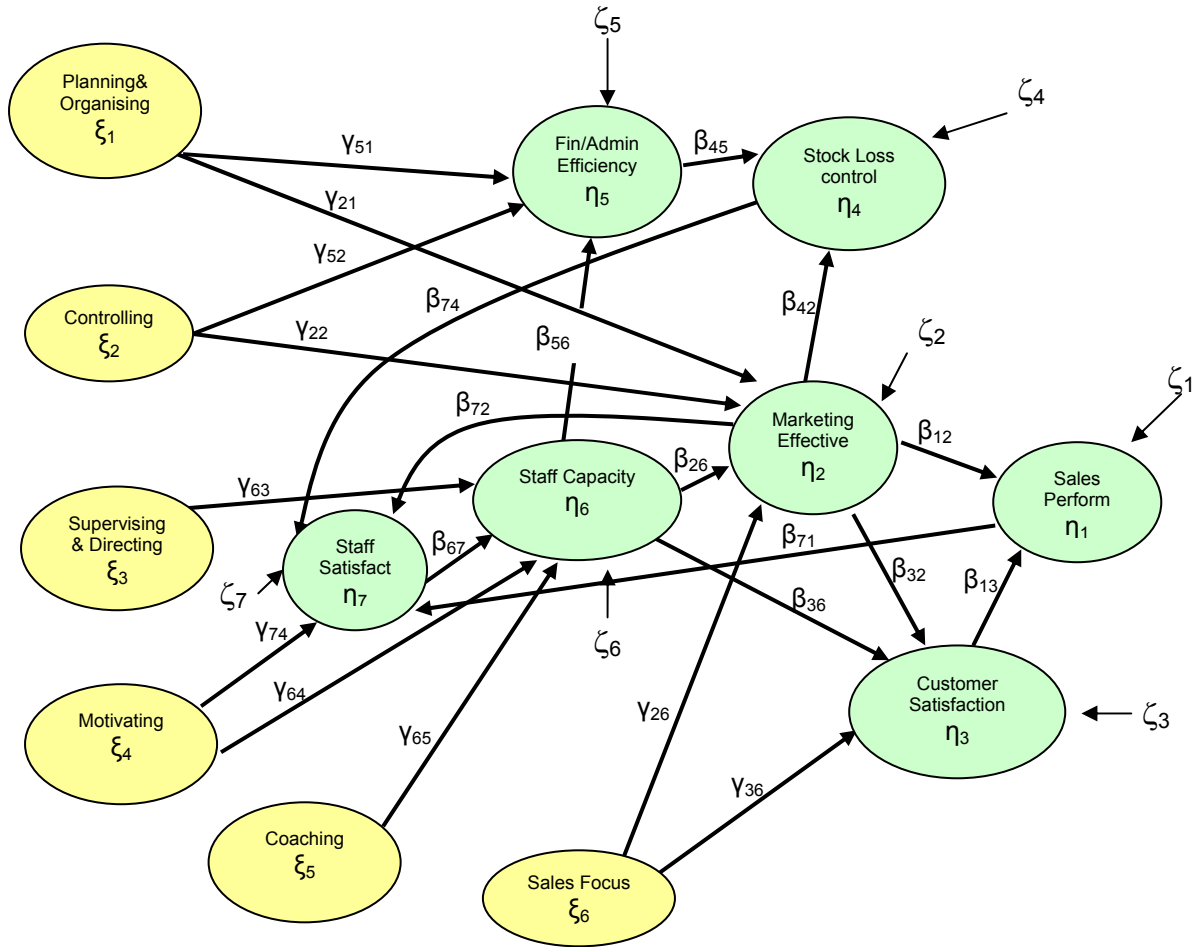


Figure 3.1 Structural model reflecting the relationships between PEP Store Manager competencies and store outcomes with the relevant LISREL symbols superimposed

3.4.1 Overarching model-directed statistical hypotheses

Hypothesis 1a: The specific exogenous measurement model, reflecting the manner in which the latent variables express themselves in the indicator variables (i.e. the proposed factor structure), perfectly explains the manner in which the indicator variables covary.

$$H_{01a}: \Sigma = \Sigma(\Theta) \text{ (or RMSEA} = 0 \text{)}$$

$$H_{a1a}: \Sigma \neq \Sigma(\Theta) \text{ (or RMSEA} > 0 \text{)}$$

Hypothesis 1b: The specific exogenous measurement model, reflecting the manner in which the latent variables express themselves in the indicator variables (i.e. the proposed factor structure), approximately explains the manner in which the indicator variables covary.

$$H_{01b} : RMSEA \leq 0,05$$

$$H_{a1b} : RMSEA > 0,05$$

Hypothesis 2a: The specific endogenous measurement model, reflecting the manner in which the latent variables express themselves in the indicator variables (i.e. the proposed factor structure), perfectly explains the manner in which the indicator variables covary.

$$H_{02a} : \Sigma = \Sigma(\Theta) \text{ (or } RMSEA = 0)$$

$$H_{a2a} : \Sigma \neq \Sigma(\Theta) \text{ (or } RMSEA > 0)$$

Hypothesis 2b: The specific endogenous measurement model, reflecting the manner in which the latent variables express themselves in the indicator variables (i.e. the proposed factor structure), approximately explains the manner in which the indicator variables covary.

$$H_{02b} : RMSEA \leq 0,05$$

$$H_{a2b} : RMSEA > 0,05$$

Hypothesis 3a: The specific processes or paths hypothesised by the PEP store manager competency structural model portrayed in Figure 2.2 perfectly explains the manner in which the indicator variables representing the latent competency and outcome variables comprising the model covary.

$$H_{03a} : \Sigma = \Sigma(\Theta) \text{ (or } RMSEA = 0)$$

$$H_{a3a} : \Sigma \neq \Sigma(\Theta) \text{ (or } RMSEA > 0)$$

Hypothesis 3b: The specific processes or paths hypothesised by the PEP store manager competency structural model portrayed in Figure 2.2 approximately explains the manner in which the indicator variables representing the latent competency and outcome variables comprising the model covary.

$$H_{03b} : RMSEA \leq 0,05$$

$$H_{a3b} : RMSEA > 0,05$$

3.4.2 Specific path-directed statistical hypotheses

Hypothesis 4: There is a causal relationship between the store outcomes, Customer Satisfaction and Sales Performance with Customer Satisfaction positively affecting Sales Performance.

$$H_{04} : \beta_{13} = 0$$

$$H_{a4} : \beta_{13} > 0$$

Hypothesis 5: There is a causal relationship between the store outcomes, Marketing Effectiveness and Sales Performance with Marketing Effectiveness positively affecting Sales Performance.

$$H_{05} : \beta_{12} = 0$$

$$H_{a5} : \beta_{12} > 0$$

Hypothesis 6: There is a causal relationship between the store outcomes, Financial/Administrative Efficiency and Stock Loss Control with Financial/Administrative Efficiency positively affecting Stock Loss Control.

$$H_{06} : \beta_{45} = 0$$

$$H_{a6} : \beta_{45} > 0$$

Hypothesis 7: There is a causal relationship between the store outcomes, Marketing Effectiveness and Stock Loss Control with Marketing Effectiveness positively affecting Stock Loss Control.

$$H_{07} : \beta_{42} = 0$$

$$H_{a7} : \beta_{42} > 0$$

Hypothesis 8: There is a causal relationship between the store outcomes, Staff Capacity and Financial/Administrative Efficiency with Staff Capacity positively affecting Financial/Administrative Efficiency.

$$H_{08} : \beta_{56} = 0$$

$$H_{a8} : \beta_{56} > 0$$

Hypothesis 9: There is a causal relationship between the competency, Planning and Organising, and the store outcome, Financial/Administrative Efficiency with Planning and Organising positively affecting Financial/Administrative Efficiency.

$$H_{09} : \gamma_{51} = 0$$

$$H_{a9} : \gamma_{51} > 0$$

Hypothesis 10: There is a causal relationship between the competency, Controlling, and the store outcome, Financial/Administrative Efficiency with Controlling positively affecting Financial/Administrative Efficiency.

$$H_{010} : \gamma_{52} = 0$$

$$H_{a10} : \gamma_{52} > 0$$

Hypothesis 11: There is a causal relationship between the store outcomes, Staff Capacity and Marketing Effectiveness with Staff Capacity positively affecting Marketing Effectiveness.

$$H_{011} : \beta_{26} = 0$$

$$H_{a11} : \beta_{26} > 0$$

Hypothesis 12: There is a causal relationship between the competency, Planning and Organising, and the store outcome, Marketing Effectiveness with Planning and Organising positively affecting Marketing Effectiveness.

$$H_{012} : \gamma_{21} = 0$$

$$H_{a12} : \gamma_{21} > 0$$

Hypothesis 13: There is a causal relationship between the competency, Controlling, and the store outcome, Marketing Effectiveness with Controlling positively affecting Marketing Effectiveness.

$$H_{013} : \gamma_{22} = 0$$

$$H_{a13} : \gamma_{22} > 0$$

Hypothesis 14: There is a causal relationship between the competency, Sales Focus, and the store outcome, Marketing Effectiveness with Sales Focus positively affecting Marketing Effectiveness.

$$H_{014} : \gamma_{26} = 0$$

$$H_{a14} : \gamma_{26} > 0$$

Hypothesis 15: There is a causal relationship between the store outcomes, Marketing Effectiveness and Customer Satisfaction with Marketing Effectiveness positively affecting Customer Satisfaction.

$$H_{015} : \beta_{32} = 0$$

$$H_{a15} : \beta_{32} > 0$$

Hypothesis 16: There is a causal relationship between the store outcomes, Staff Capacity and Customer Satisfaction with Staff Capacity positively affecting Customer Satisfaction.

$$H_{016} : \beta_{36} = 0$$

$$H_{a16} : \beta_{36} > 0$$

Hypothesis 17: There is a causal relationship between the competency, Sales Focus, and the store outcome, Customer Satisfaction with Sales Focus positively affecting Customer Satisfaction.

$$H_{017} : \gamma_{36} = 0$$

$$H_{a17} : \gamma_{36} > 0$$

Hypothesis 18: There is a causal relationship between the store outcomes, Staff Satisfaction and Staff Capacity with Staff Satisfaction positively affecting Staff Capacity.

$$H_{018} : \beta_{67} = 0$$

$$H_{a18} : \beta_{67} > 0$$

Hypothesis 19: There is a causal relationship between the competency, Supervising and Directing, and the store outcome, Staff Capacity with Supervising and Directing positively affecting Staff Capacity.

$$H_{019} : \gamma_{63} = 0$$

$$H_{a19} : \gamma_{63} > 0$$

Hypothesis 20: There is a causal relationship between the competency, Motivating, and the store outcome, Staff Capacity with Motivating positively affecting Staff Capacity.

$$H_{020} : \gamma_{64} = 0$$

$$H_{a20} : \gamma_{64} > 0$$

Hypothesis 21: There is a causal relationship between the competency, Coaching, and the store outcome, Staff Capacity with Coaching positively affecting Staff Capacity.

$$H_{021} : \gamma_{65} = 0$$

$$H_{a21} : \gamma_{65} > 0$$

Hypothesis 22: There is a causal relationship between the store outcomes, Sales Performance and Staff Satisfaction with Sales Performance positively affecting Staff Satisfaction.

$$H_{022} : \beta_{71} = 0$$

$$H_{a22} : \beta_{71} > 0$$

Hypothesis 23: There is a causal relationship between the store outcomes, Stock Loss Control and Staff Satisfaction with Stock Loss Control positively affecting Staff Satisfaction.

$$H_{023} : \beta_{74} = 0$$

$$H_{a23} : \beta_{74} > 0$$

Hypothesis 24: There is a causal relationship between the store outcomes, Marketing Effectiveness and Staff Satisfaction with Marketing Effectiveness positively affecting Staff Satisfaction.

$$H_{024} : \beta_{72} = 0$$

$$H_{a24} : \beta_{72} > 0$$

Hypothesis 25: There is a causal relationship between the competency, Motivating, and the store outcome, Staff Satisfaction with Motivating positively affecting Staff Satisfaction.

$$H_{025} : \gamma_{74} = 0$$

$$H_{a25} : \gamma_{74} > 0$$

3.5 Measuring instruments

Literature often refers to measurements of latent variables/constructs as indicators (Diamantopoulos & Siguaw, 2000). It will be noticed that except for the two job outcome variables (i.e. Staff Capacity and Staff Satisfaction), existing measures could be used as indicators for latent job outcome variables, whereas questionnaires needed to be developed for measuring all job competencies. Starting with job outcome variables, the indicators for latent variables will be discussed in the following section. Finally, the development of questionnaires for measuring the job competencies, as well as the two job outcomes, Staff Capacity and Staff Satisfaction, will be explained. Throughout this section, possible limitations and shortcomings in the operationalisation of the latent variables comprising the PEP competency structural model will be highlighted.

3.5.1 Indicators for job/store outcomes

As mentioned earlier, existing in-house performance measures could be used as indicators for the majority of latent job outcome variables. These existing measures are in fact the Key Performance Indicators (KPIs) presently being used by PEP to evaluate the performance of stores and to appraise store managers accordingly. A large part of the KPIs consist of checklists being filled in by area managers and stock

controllers. Area managers oversee the general performance (e.g. marketing standards, sales performance etc.) of between 6 – 15 stores in a specific area, whereas stock controllers specifically have to evaluate the administrative efficiency and stock loss control of these stores. Stores/store managers are measured on the KPIs once every two months, with the exception of the peak period in December/January when priority is given to generating sales. These KPI evaluations, as well as follow-up visits by area managers and stock controllers, can probably be seen as the main purpose of their respective jobs as it requires most of their time.

The most recent KPI measures at the time of the study (April/May 2006) were used to ensure that the responsible store managers have had sufficient opportunity to influence job outcomes. The sampling frame consisted of store managers who had commenced employment at least 10 months prior to this evaluation. In cases where measures were not available for April/May 2006, data from the previous cycle, February/March 2006, were used. The Pearson correlation between the April/May 2006 and February/March 2006 data was 0,984, showing reliability and consistency across measures.

The various store latent outcome variables along with their concomitant indicators will now be discussed, stating for each indicator whether it formed one of the existing KPIs or whether it had been especially developed for the purpose of this study. Where PEP management transformed KPI measures to another scale or points for appraisal purposes, the transformed data had to be used as input data due to availability.

3.5.1.1 Sales Performance

The **Sales Budget** measure is the percentage with which actual store sales fall above of below a store's sales budget and is considered to be one the most important KPIs presently being used to evaluate store manager performance and store performance. Since the budget set for a particular store takes into account the size, location and other store characterising factors influencing sales, it is regarded as fair to compare store managers based on this indicator. Linear transformations of

the percentages to a scale of 0 to 3 (where 0 indicates actual sales of 5% under budget and 3 actual sales of more than 5% above budget) are used in PEP to appraise store managers.

Sales Growth is an additional sales performance indicator requested by the researcher from PEP Financial Department, and represents the percentage growth in sales between two consecutive fifty-one week periods (26 June 2004 – 17 June 2005 and 26 June 2005 – 17 June 2006). Assuming that a store's size, location and other factors influencing actual sales were expressed in the first year's sales (26 June 2004 – 17 June 2005), improvement on this figure would be a function of how effective the available resources were utilised, thereby making sales growth a comparative figure. One factor that could however not be controlled, was the effect of store revamps during the period 26 June 2005 – 17 June 2006. Revamps include modifications to store out-lays and size and is usually accompanied by higher sales, influencing the sales growth percentage accordingly. In comparison, the sales percentage above/below budget indicator does account for this effect when determining the budget.

3.5.1.2 Stock Loss Control

Stock Loss Control is another existing PEP measure considered to be one of the more important KPIs presently being used to evaluate store manager and store performance. It is the ratio of actual stock loss (the difference between theoretical stockholding and actual physical stockholding) to sales, expressed as a percentage. Stock loss percentages between 0% and 1% are considered outstanding (score 3), stock loss percentages lower than 0% or between 1,8% and 2% (score 1) are poor, stock loss higher than 2% are regarded as unacceptable (score 0), and stock loss percentages between 1% and 1,8% are considered reasonable (score 2). Stock loss percentages lower than 0% is assumed to be caused by negligence or irregularities influencing calculation of the theoretical stock. Non-linear transformations of the stock loss percentages to a scale of 0 to 3, where 3 is considered most acceptable and 0 is interpreted as least acceptable are used for store manager appraisals.

Stock Loss Movement is also an existing PEP measure being used in addition to stock loss percentage to track the improvement/weakening of stock loss control. It is calculated as the ratio of the difference in actual stock loss between two periods to the difference in sales for the same period, and expressed as a percentage. The same non-linear equation used to transform stock loss percentage is used to transform stock loss movement percentage to a scale of 0 to 3, where 3 again is interpreted as most acceptable and 0 is considered least acceptable.

3.5.1.3 Financial/Administrative Efficiency

Administrative Compliance is an existing PEP performance indicator and represents the outcome of a checklist completed by the stock controller. The checklist includes a range of procedures and administrative duties that need to be carried out by the store manager, and his/her compliance with these duties is expressed as a percentage. A score of 1 is awarded for compliance above 90% and a score of 0 for compliance below 90%. This transforms scores of compliance percentages to a scale of 0 to 1, where 0 is unacceptable and 1 is acceptable.

Cost Control, another existing PEP performance indicator, signifies the percentage of the store manager budget that has been spent. Percentages above 100% are considered to indicate over-spending and are represented by a score of 0, whereas any percentage below 100% is considered to indicate good cost control performance and is represented by a score of 1. The question could, however, be raised whether under-spending should not also be considered undesirable?

Markdown Compliance is an existing PEP performance indicator that indicates the extent to which store managers comply with markdown/price reduction instructions from Central Office. A score of 1 is awarded for compliance above 85% and a score of 0 for compliance less than 85%.

3.5.1.4 Marketing Effectiveness

The **PEP Standard** measure is presently being used as a measure that indicates the extent to which store managers comply with regulations and standards set for the

marketing of the store. The evaluation is conducted by the area manager overseeing the area by means of a checklist. A score of 3 is awarded for compliance above 80% and a score of 0 to compliance below 80%.

Department Focus List represents a large subsection of the PEP standard checklist, focussing in particular on the marketing compliance of the individual departments within the store. The rating of each department is used to evaluate the performance of sales assistants responsible for the respective departments, and the summative score is presented as the store manager's rating. Since the scores on the checklist are not transformed in the appraisal of the store manager the raw scores (percentages) were used as input data.

3.5.1.5 Customer Satisfaction

The preferred measure/indicator of satisfaction would be an instrument that directly elicits information from a sample of customers visiting the particular stores sampled for the purpose of this study. A short questionnaire that could be distributed to customers visiting the sampled stores had been considered, but unfortunately, PEP did not agree to this request. A decision had to be made between an alternative, possible inferior indicator of customer satisfaction, or rather omitting the variable from the model. Since the variable is essential to the conceptual model, it was decided to proceed with the alternative indicator discussed below.

The **Customer Service** measure is a small subsection of the PEP standard (marketing) percentage checklist and includes items pertaining to the customer service in the store as observed and evaluated by the area manager. Performance on the customer service subsection of this checklist is assumed to accurately reflect the comprehensive concept of customer satisfaction. Although this assumption should be challenged, using an inferior indicator seemed a better option than to omit a key latent variable of this nature. The raw percentages were used as input data.

3.5.1.6 Staff Capacity

Since an adequate measure of Staff Capacity was not available, a questionnaire had to be developed specifically for the study (see Appendix A, section 2) with items eliciting responses regarding sales assistants' sense of direction in their role, as well as their degree of motivation towards store outcomes. The scale consists of 11 items, of which the first 7 focus on the sales assistants' sense of direction. Although a 360 degrees rating may have provided a more reliable indicator, ratings from area managers were the only practical option at the time of the study. The development of the questionnaire is discussed in more detail in section 3.5.3.

3.5.1.7 Staff Satisfaction

As with Staff Capacity, no existing PEP indicators were available for measuring Staff Satisfaction, which necessitated the development of a staff satisfaction questionnaire. (See Appendix B) The majority of items were obtained from the Work Unit Performance sub-scale, Employee Satisfaction, developed by Spangenberg and Theron (2004) and modified to be appropriate for the PEP context. The questionnaire was designed to be rated by selected sales assistants from the sampled stores, with the area manager overseeing the process. The development of the questionnaire is discussed in more detail in section 3.5.3.

3.5.2 Store manager job competencies

As mentioned in the introductory argument, PEP did not have existing instruments available to measure store manager competencies. One reason may be a belief that job outcome measures as measures of stores performance, are more objective and reliable than behavioural measures for evaluating store manager performance. It has, however, been argued in Chapter 2 that behavioural/competency assessment is essential for performance management regardless of whether management favours a management by objectives (MBO) approach or not. Another reason why behavioural measures were not utilised may have been the complex and demanding process of conceptualising and developing valid and reliable behavioural-based measures.

Since measurements of the job competencies were essential for the study, the researcher developed a questionnaire, called the Behavioural Performance Rating Questionnaire. (See Appendix A, section A). Scales with at least 7 items each were constructed for each of the competencies discussed in Chapter 2, section 2.7.3. The process underlying the development and administration of the instruments is discussed next.

3.5.3 Development and administration of measuring instruments

Three questionnaires had to be developed for the purpose of this study, one measuring store manager job competencies and another two to assess the job outcomes, Staff Capacity and Staff Satisfaction. Since the store manager competency questionnaire and the job outcome questionnaire measuring Staff Capacity would both be rated by the same area manager, both these scales were incorporated into the same instrument (Behavioural Performance Questionnaire) as sections 1 and 2 respectively. The Staff Satisfaction questionnaire was developed as a separate instrument to be rated by selected staff members of the sampled stores. For practical reasons, and to ensure better control, the complete process was designed to be controlled by the sampled area managers.

Essentially the same procedure was followed as that suggested by Latham and Wexley (1994) for the development of a behavioural observation scale. The process of writing and grouping items were, admittedly, not as systematic as described by Latham and Wexley (1994). Rather, information from a variety of sources was integrated and at times intuition was applied. Also, more opportunity could have been given to SMEs to judge item and criterion content validity. Nevertheless, Latham and Wexley's (1994) appeal for a procedure that includes comparison of items across independent judges were largely complied with.

A useful source of items was the Technical Report generated by the SHL job analysis procedure which includes examples of behavioural tasks rated as the most important according to four independent job analysis panels. The reader is referred to Chapter 2 for a detailed discussion of the SHL job analysis process and report

categories. Other items were generated through additional job analysis and follow-up interviews with store managers, speaking to SMEs, observing store managers, and ultimately comparing items across methods. All the generated items were initially earmarked to reflect a specific latent variable of interest. The final grouping and selection of items had, however, been based on the results of the factor and item analyses performed following the administration of the questionnaire to the sample.

The format of the three questionnaires is similar for the most part, and constitutes a modification of a questionnaire developed by Spangenberg and Theron (2004) for assessing work unit performance. This format is unique in the sense that it incorporates useful qualities from both, Behavioural Observation Scales (BOS) and Behaviourally Anchored Rating Scales (BARS). The questionnaire corresponds to BOS in as far as it expresses the items in terms of ideal critical behaviours and in as far as it requires the rater to rate the focal person on a 5-point scale in terms of the frequency or success with which the behaviour had been displayed. In addition, it also incorporates elements of BARS by also including behavioural anchors or examples to help the rater define the level of success for particular behaviours. Although the items of the Staff Satisfaction Questionnaire are more attitudinal than behaviourally-orientated, the same principles apply.

Training given to raters has proved to decrease rating errors, such as halo error, and central tendency. Numerous training methods have been proposed with some showing more effective results than others (Latham & Wexley, 1994; Guion, 1998). Where training sessions are not practical/feasible (as in the case of this study), Guion (1998) advised that the instructions at least provide some guidelines as how to conduct a fair and reliable appraisal. For this reason close attention was given to the instructions provided in the questionnaires. In retrospect, the researcher strongly advocates special training to reduce especially halo errors.

The Staff Satisfaction and the store manager competency questionnaires (the Staff Capacity Questionnaire was still under construction at that stage) were pre-tested on 29 March 2006 on one area manager and two sales assistants. Some of the aspects of the experimental version of the questionnaires that were evaluated were the length of the questionnaire, the answer protocols, comprehension of the instructions

and items, linguistic issues, logistical considerations, possible rating errors and possible fears and anxieties surrounding confidentiality. Following the pre-testing, the questionnaires were revised based on the feedback obtained from the respondents. The Staff Capacity questionnaire was subsequently completed. This was followed by another round of evaluation by SMEs upon which final revisions were made to the questionnaires.

The area managers responsible for the sampled store managers/stores were each send an A4 envelope with all the necessary documents and instructions describing in a step by step manner the procedures to be followed. The first paragraph explained the purpose of the study and provided the names of the three store managers/stores which they were requested to evaluate. See section 3.5.4 for more detail on the sampling process.

Step1 required them to make sure whether they have received the required documents, which were three Behavioural Performance Rating Questionnaires (one per store manager), six Staff Perception Questionnaires (two per store), and one return envelope. Step 2 instructed them to complete the Behavioural Performance Rating Questionnaire (section 1 & 2) on each of the three store managers/stores indicated. Step 3 provided a detailed explanation of how the Staff Satisfaction Questionnaire had to be administered. This instructed them to physically visit each of the sampled stores, select two sales assistants according to specific prescribed sampling rules and to ensure that the selected sales assistants understand the instructions and format of the questionnaire. They area manager also had to ensure that the selected sales assistants were not influenced by the presence of the store manager and that the completed forms maintain with the area manager. Step 4 indicated the date by which the completed data had to be returned to Central Office.

Area managers questioned afterwards about the process indicated that the instructions were very clear. The fact that almost no deviations from the procedures were evident, confirmed this. The only departure from the instructed process, the researcher is aware of, is an insignificant number of area managers that faxed the Staff Satisfaction Questionnaires to the sampled stores, instead of physically visiting the store in person and administering the questionnaire to sales assistants.

3.6 Selection of Sample

The target population for this study was the approximately 870 South African PEP store managers and their respective stores. The unit of analysis in this study is therefore the store manager. Area managers and sales assistants served as units of observation. Out of the 870 store managers, 443 qualified to be included in the sampling frame based on criteria discussed under in section 3.6.2. A representative sample of store managers (and their associated area managers) was selected. In addition, a representative sample of sales assistants needed to be selected from each of the sampled stores to complete the Staff Satisfaction Questionnaire. Aspects relating to sample size will first be discussed, and thereafter the sampling procedures that were followed are explained.

3.6.1 Sample size

Sampling sizes of at least 200 observations are seemingly satisfactory for SEM, although sample sizes of as small as 56 have been used (Kelloway, 1998; MacCallum et al., 1996). Two issues seem to be relevant for determining sample size for the purpose of SEM. The first matter, often used as a general guideline, is the ratio of sample size to the number of parameters to be estimated. Large complicated models contain more variables and therefore have more parameters to be estimated that requires larger sample sizes. Bentler and Chou (cited in Kelloway, 1998, p. 20) suggest sample size to estimated parameter ratios of between 5:1 and 10:1.

Based on the number of parameters to be estimated, Table 3.1 indicates that the following sampling sizes would be considered ideal in terms of the foregoing guideline for empirically evaluating the fit of the store manager competency structural model and each of the measurement models (Job competencies measurement model [X] and job outcome measurement model [Y]) respectively:

**Table 3.1 Ideal sample size to estimated parameters ratio of
between 5:1 and 10:1**

Model	Structural model	Measurement model X	Measurement model Y
Parameters	96	39	35
Ideal sample size	480-960	195-390	175-350

The second consideration relevant to the question as to the required sample size is statistical power. MacCallum et al. (1996) developed formulas for calculating power for SEM. Power in the context of SEM normally refers to the probability of rejecting the theoretical model (i.e., rejecting the null hypothesis of close fit, $H_0: \varepsilon \leq 0.05$) when in fact it should be rejected (i.e., the model fit actually is mediocre, $\varepsilon = 0.08$). The ideal sample sizes based on adequate power, given certain effect sizes and other factors relevant to the respective analyses, are provided in Table 3.2 below.

Table 3.2 Ideal N based on adequate power

	Structural model	Measurement model X	Measurement model Y
Power	0,80	0,80	0,80
Significant level (α)	0,05	0,05	0,05
Direction	n/a	n/a	n/a
Effect size	Close fit $\varepsilon_0 = 0,05$; $\varepsilon_a = 0,08$	Close fit $\varepsilon_0 = 0,05$; $\varepsilon_a = 0,08$	Close fit $\varepsilon_0 = 0,05$; $\varepsilon_a = 0,08$
Degrees of freedom (df)	255	39	70
Ideal sampling size	+/- 72	+/- 260	168

It may seem contradictory that the structural model requires a smaller sample size than the less complicated measurement models to achieve the same level of power. The reason for this phenomenon lies in the large degrees of freedom found in the structural model, which is the difference between the number of parameters to be estimated t and the number of unique variances and covariance terms in the

observed covariance matrix, calculated as $((p + q)(p + q + 1))/2$ where p = the number of y-variables and q =the number of x-variables. A large degrees of freedom decreases the probability of not rejecting an incorrect model (Type error II) since it allows for the estimation of additional parameter estimates to test the model (Diamantopoulos & Siguaw, 2000).

Considering the aforementioned two considerations, an ideal sample size for the study would be in the region of 150 – 350 store managers. Practically, PEP could however only allocate a probability sample of 120 store managers, which is 27,09% of the sampling frame of 443 store managers. The effective sample size was 93, which is 20,99% of the sampling frame. The resulting sample size seems appropriate for conventional methods of analysis, but somewhat small for SEM. This does not mean that SEM is altogether inappropriate for this study, but it does imply limitations on the inferences. Another solution would be to consider simplifying the model and even apply multiple regression techniques. These possibilities, as well as their limitations and effect on the study are discussed in section 3.7.

3.6.2 Sampling procedures

The population of PEP store managers in South Africa is approximately 870, employed in about sixty-five different areas across the country. In determining the sampling frame, the employment history of the units of analysis (i.e. the store managers), as well as the respective observation units (i.e. the area managers) had to be considered. Literature about reliable behavioural ratings points out the importance of judges having sufficient opportunity to observe the subject's behaviour (Latham & Wexley, 1994). For this reason, only area managers that have at least been employed for a period of ten months in an area could be used as judges in their respective areas, thereby excluding store managers from areas with newly appointed or transferred area managers. From the remaining store managers, only the store managers that have at least worked for ten months in a particular store could be included in the sampling frame. According to PEP's management, it is reasonable to assume that store managers can influence store outcomes within a period of six months. The resulting sampling frame was a total of 443 store managers from forty-four areas.

Ideally, the sample of 120 store managers would be obtained via a single-stage sampling procedure where the sample is directly drawn from the sampling frame. However, depending on the amount of store managers selected from each area, the possibility existed that it may result in some area managers having to rate an unreasonably large number of store managers/stores. It was argued that area managers could lose concentration if they were required to rate more than three store managers, and consequently would then be more susceptible to rating errors. More importantly, the demanding schedule of area managers did not allow them to physically administer more than three ratings.

In discussions with PEP the general consensus was to use a ratio of three store managers per area manager and treat the area managers as the primary sampling unit in a two-stage sampling procedure. The intended sample size of 120 store managers meant the selection of 40 area managers. From the sampling frame of 44 areas, 40 areas were selected with probability of selection proportionate to size (PPS), but due to the high population – sampling ratio in the first stage of sampling, the procedure was not truly self-weighting. With some clusters/areas containing more elements than the interval size of 11,08 (number of primary sampling units in the population (443) divided by the desired number of secondary sampling units or clusters (40)) some areas had a probability of more than 100% of being selected. Since no areas would in reality be selected more than once, the equilibrium to be accomplished by PPS was disturbed, giving elements in smaller areas a higher overall probability of being selected (Babbie, 1989).

Following the selection of the 40 areas, the store managers/stores within the sample areas were stratified on the basis of a general store performance index, thereby obtaining a greater degree of representativeness within each area. Three store managers/stores per area were then systematically selected using a continuous list beginning with the highest index scores for each area.

When the process of actual data collection started, some of the sampled store managers/stores no longer met all the selection criteria due to operational changes in the period between selection and assessment. In two cases, area managers attempted to compensate for such changes by observing and rating alternative store

managers not initially included in the sample. Since the need for a large as possible sample was paramount and these two alternative elements complied with the selection criteria, they were consequently added to the sample of 120 to make-up a sample of 122 cases.

Data sets of the 122 store managers were only considered complete if it included the area manager ratings of the store manager competencies and Staff Capacity, the Staff Satisfaction ratings of the same store, and finally, the store's other job/store outcome ratings. In data sets where any of these three sets of variables were missing, the response on the subject of interest was considered incomplete and the case consequently deleted. The effective sample size consistent with the above criteria was 93. The composition of the sample is presented in Table 3.3 below:

Table 3.3 Composition of the effective store manager sample

		Gender		Total
		Male	Female	
Racial Category	White	1	34	35
	Coloured	3	16	19
	Black	6	30	36
	Asian	1	2	3
Total		11	82	93

Finally, a sample of sales assistants had to be selected to complete the Staff Satisfaction questionnaire for each of the sampled stores. As mentioned before, the area managers were used as the focal point and consequently were responsible for selecting two sales assistants per store based on a prescribed procedure. The area managers were instructed to select sales assistants randomly by flipping a coin or drawing names out of hat. Only sales assistants who have been working for at least six months in the particular store were eligible to participate. No information on the composition of the sales assistants sample is available.

3.7 Statistical analyses

The job competency and job outcome data was captured in a SPSS version 14.0 data file, upon which the accuracy of the data was examined and missing values

identified. Cases where either all the job competency data or all the job outcome data are missing were deleted.

The reliability of each of the rating scales was investigated with the SPSS Reliability Analysis procedure. The Cronbach Alpha reliability coefficient was used to examine the internal consistency of the items comprising each particular sub-scale, and the various item statistics (mean, standard deviation, inter-item correlation, item total correlation, squared multiple correlation and alpha-if-item-deleted) were used to investigate (a) the ability of each item to sensitively discriminate between different states of the latent variable and (b) the extent to which items successfully reflect a common underlying factor. An Alpha coefficient close to 1 indicates that the different items of a particular sum scale are reliable/near perfect measures of a common (though not necessarily uni-dimensional) latent variable (the true score) (StatSoft, 2006). Items that were flagged as problematic in terms of the aforementioned item statistics were considered for deletion if it could be justified theoretically or if such a decision was also supported by the results of the uni-dimensionality analysis of the sub-scale in question.

The uni-dimensionality of each sub-scale was subsequently investigated to establish whether the different items (variables) were reflective of the single hypothesised latent variable the items were designed to reflect. This would give credence to the claim that all the items included in each of the sub-scales provide valid representations of the single latent variable they were designed to reflect (Kinnear & Gray, 2000; Tabachnick & Fidell, 2007). For this purpose, the SPSS Data Reduction procedure, utilising principle axis factoring (FA) with Varimax rotation was used. The decision on the appropriate number of factors to extract to explain the observed inter-item correlation matrix was based on the traditional eigenvalues greater than unity decision rule. Parallel analysis and/or the use of Velicer's minimum average partial (MAP) test might, however, have yielded a more credible indication of the appropriate number of factors underlying the observed correlation matrix (O'Conner, 2000). Where more than one factor was extracted and/or items with low factor loadings were present, the offending items were either considered for deletion from the sub-scale or if theoretically justifiable, used to form other independent homogeneous sub-scales.

In preparing the data for SEM, composite indicators were created with SPSS from the sub-scales containing sets of homogeneous items. It is common practice to create composite indicators as it simplifies the SEM analysis (Diamantopoulos & Siguaw, 2000; Spangenberg & Theron, 2004). In this case, two composite indicators were calculated for each of the developed measures by splitting the items comprising a sub-scale in half. More specifically the mean of the even numbered and uneven numbered items were taken respectively. Where, however, indications would be found that the multi-dimensionality assumption would not be tenable for any given sub-scale, construction of composites could, if theoretically justifiable, be guided by such evidence.

Descriptive data was generated with SPSS to examine the distributional properties of the variables, including the composite variables (i.e. the item parcels). Decisions to delete outliers depended on the presumed effect it may have on the results, as well as the capacity of the sample size to be reduced. Where continuous data was skew or if negative/positive kurtosis was present, transformation of the data with PRELIS was considered thereby also addressing uni-variate outliers. In addition, PRELIS was also employed to investigate the multi-variate normality of the data.

After investigating the sub-scales and calculating item parcels to represent the latent variables comprising the store manager competency structural model, the fit of the proposed model depicted in Figure 2.2 (and Figure 3.1) was evaluated using structural equation modelling (SEM). SEM is most suited for testing models consisting of multiple dependent and independent variables (Tabachnick & Fidell, 2007). Ullman (2007, p. 679) concludes that "...when the phenomena of interest are complex and multidimensional, SEM is the only analysis that allows complete and simultaneous tests of all the relationship."

The fit of the proposed store manager competency structural model was evaluated utilising the interactive LISREL programme version 8.80 (Du Toit & Du Toit, 2001). The associated PRELIS programme was used to calculate the covariance matrix that served as input data for the evaluation of the store manager competency structural model. LISREL compares the sample covariance matrix to the implied covariance matrix derived from the model parameter estimates once the model has been

specified. The model was specified through path diagrams. The fit of each of the measurement models was first tested, and the evaluation of the fit of the comprehensive store manager competency structural model was made conditional on adequate measurement model fit. Fit indices most appropriate for the observed data were used to evaluate fit, and in addition, parameter estimates were examined for further conclusions about model relationships. The fundamental hypothesis and logic underlying LISREL are discussed in section 3.4.

A final consideration in SEM is the option of modifying a model after it has already been tested. Modification is usually considered as an attempt to either improve the fit of a model or alternatively as an attempt to simplify the model to achieve a more parsimonious model. SEM is however a theory-driven technique and therefore any exploratory actions aimed at modifying an existing model should be justified in terms of a convincing substantive theoretical argument and should be cross-validated on an independent sample to be considered valid (Diamantopoulos & Siguaw, 2000).

SEM is based on a number of data-related assumptions and a violation of any of these may result in a serious degradation of the quality of the eventual model fit achieved (Diamantopoulos & Siguaw, 2000; Du Toit & Du Toit, 2001). In extreme cases it might even result in the programme not being able to perform the required analyses (Diamantopoulos & Siguaw, 2000). If the reason for the inability of the parameter estimate solution to converge can be detected, it should be corrected if possible. If transformations, deletion of variables or other methods of correcting the problem are still unsuccessful, a last resort could be to use an alternative, more conventional statistical analysis technique like standard multiple regression analysis instead. This would, however, seriously limit the ability to arrive at a single decision on the tenability of the proposed store manager competency structural model as a comprehensive explanation. Multiple regression will necessitate the fitting of a number of separate regression models thereby pronouncing separate (possibly opposing) verdicts on different parts of the model. Moreover, it will not be possible to directly test the significance of hypothesised mediation effects in the model in multiple regression analysis. With each indicator signifying a single factor in multiple regression analysis, testing the model would also necessitate the omission of certain indicators or the construction of composite measures from different indicators

measuring a particular factor. In addition, the failure of the model to converge in the absence of any obvious transgressions of data-related assumptions would suggest fundamental flaws in the model being evaluated. This makes the fruitfulness of using an alternative more conventional statistical analysis technique like standard multiple regression analysis under these conditions somewhat questionable.

3.8 Limitations to the research methodology

Although most of the limitations or shortcomings in the research methodology have already been discussed throughout the text, some of the more important limitations will be highlighted again.

Firstly, SEM is primarily a large sample procedure and therefore the available sample of 93 observations may increase the likelihood of estimation errors. It will also negatively affect the power of the model-fit analyses. The danger therefore exists that in evaluating the fit of a (measurement or structural) model, the analysis will fail to reject the null hypothesis of close model fit even though the actual model fit is in reality mediocre.

It should also be noted again that good model fit in SEM does not imply causality. Even though the structural model being evaluated hypothesised specific causal paths between the latent variables comprising the model, good model fit and significant path coefficients constitute insufficient evidence to conclude that these causal hypotheses have been confirmed. In the final analysis this is not due to limitations in the analysis technique as such but rather due to the ex post facto nature of the study that precluded the experimental manipulation of the relevant latent exogenous and endogenous variables (Kerlinger and Lee, 2000).

The effect that opportunistic modifications, unsupported by sound substantive theoretical rationale, could have on the validity of the model should also be considered and the need for the cross-validation of modifications to the original model on independent samples from the same population is again emphasised (Diamantopoulos & Siguaw, 2000).

3.9 Summary

The chapter focussed on the research methodology for the study and commenced with a description of the research problems and substantive research hypotheses, followed by an explanation of the statistical hypotheses. The measurement indicators for each of the latent variables were subsequently discussed, with an overview also been given of the process followed in the development of the new measuring instruments required for the study. The ideal sample size and the sampling procedure were explained, and finally, the method of analysis with its limitations was considered. Chapter 4 will present the statistical results for the research questions posed in this chapter.

CHAPTER 4

RESULTS OF ANALYSIS

4.1 Introduction

Chapter 1 explained that the purpose of the study is to develop and test a store manager competency structural model that reflects the impact of store manager competencies on store outcomes. A theoretical overview of competency modeling in general was provided in Chapter 2, with the same chapter explaining the theoretical development of the PEP store manager competency structural model. Chapter 3 discussed the methodology applied in the study and in particular the development of the questionnaires and the sampling process.

The purpose of Chapter 4 is to present and discuss the statistical results of the various analyses performed. The chapter begins by explaining the effect of missing data in the study and how it was dealt with. It then evaluates the reliability and dimensionality of the subscales developed for the hypothesised job competencies, followed by an evaluation of the extent to which the data satisfied the statistical data assumptions relevant to the data analysis techniques utilised. Ultimately, the fit of the exogenous measurement model is evaluated. The same procedures are followed for evaluating the endogenous measurement model and on condition of acceptable measurement model fit, the structural model is considered.

4.2 Missing data values

Three main sets of data were required for a case (i.e., a store manager and his/her store) to be included in the final data set, namely, competency and staff capacity ratings by the area manager, satisfaction ratings by the sales assistants and the existing store outcome evaluations as stored on the PEP database. Table 4.1 shows the number of cases for which the various sets of data could be obtained.

Table 4.1 Sets of data obtained

	Competencies and Staff Capacity ratings by area manager	Sales assistant ratings	Other existing store outcome evaluations
Valid cases (out of 122)	98	100	110
Percentage valid cases	80,33 %	81,97%	90,16%

Of the 122 cases for which data had been obtained, 93 (76,23%) cases had values on all three sets of variables. Cases with missing values on all the variables comprising any one of the three sets of variables were deleted from the original data set. The remaining sample (i.e. the effective sample) had no missing values on any of the existing store outcome evaluations and a maximum number of two missing values per variable, randomly distributed, over the various area manager and sales assistant ratings. These cases were retained since two missing values per variable were regarded as insignificant. The subsequent analyses and descriptive statistics were based on the effective sample of the 93 cases.

List-wise deletion per sub-scale was used in the item analysis and the dimensionality analysis. No missing values existed in the composite indicator variables calculated to evaluate the fit of the store manager competency measurement model. The calculation of the store manager competency item parcels from the unimputed data set was warranted by the fact that the number of missing values were small enough to ensure that item means were calculated for each of the 93 cases from the majority of the items that were meant to contribute to the item parcel in question. No missing values existed in the indicator variables used to evaluate the fit of the store outcome measurement model either. The benefits to be derived from the use of more sophisticated imputation procedures (e.g. imputation by matching, multiple imputation or the full information maximum likelihood procedure available in LISREL) (Du Toit & Du Toit, 2001; Mels, 2003) over that achieved by the more conventional treatment of the missing values problem did not seem justified in this instance.

4.3 Job competency measurement model

The job competency or exogenous measurement model was evaluated first. The purpose of each analysis was explicated in Chapter 3 and is therefore only briefly discussed in this chapter. Following the evaluation of the job competency measurement model, the fit of the endogenous measurement model is discussed based on a similar array of analyses as that used to evaluate the success with which the indicator variables represent the latent competency variables.

4.3.1 Item analysis on job competency sub-scales

Item analysis or scale reliability analysis assesses the consistency between items in a particular sub-scale. *Good* items will have high internal consistency and *weak* items will be inconsistent with the rest of the items. The results of the item analysis performed on each of the sub-scales are indicated below in Table 4.2.

Table 4.2 Reliability of job competency sub-scale measures

Sub-scale	Number of items	Alpha	Mean	Variance	Effective N
Planning & Organising (A)	7	0,943	24,89	35,988	91
Controlling (B)	7	0,921	23,76	29,808	91
Supervising & Directing (C)	7	0,906	24,54	27,174	92
Motivating (D)	7	0,916	24,34	28,938	91
Coaching (E)	7	0,890	24,01	21,813	92
Sales focus (F)	10	0,918	36,65	51,675	91

It can be seen from Table 4.2 that the Cronbach alpha coefficients of internal consistency were all above 0,85 for all of the sub-scales, which is gratifying. The various item statistics (mean, standard deviation, inter-item correlation, item total correlation, squared multiple correlation and alpha-if-item-deleted) also did not show any problematic items. On the basis of the scale reliability it thus seemed appropriate to retain all items.

4.3.2 Factor analysis on job competency sub-scales

The proposed store manager competency structural model depicted in Figure 3.1 in essence explicates the internal structure of the multi-dimensional store management performance construct and various sub-scales were developed to measure specific latent dimensions comprising the construct. The intention with the development of these scales was to construct essentially one-dimensional sets of items to reflect variance in specific latent variables collectively comprising the store manager performance domain. The items within each sub-scale are meant to function as homogenous stimulus sets to which raters respond with behaviour that is primarily a relatively uncontaminated expression of a specific underlying latent managerial performance variable. Sub-scales were also developed for measuring two of the latent job outcome variables, namely Staff Capacity and Staff Satisfaction, for which the results are reported later in this chapter.

Factor analysis was performed to confirm the uni-dimensionality of the sub-scales, and where needed, alterations were made to scales based on the number of factors extracted and the loading of items on extracted factors. For this purpose, the SPSS Data Reduction procedure was used to perform principle axis factor analysis with Varimax rotation. The decision on the appropriate number of factors to extract to explain the observed inter-item correlation matrix was based on the traditional eigenvalues greater than unity decision rule.

Except for the sub-scale, Sales Focus, the extraction of a single factor was sufficient to explain the observed inter-item correlation matrix in the case of all other job competency sub-scales, thereby confirming the essentially uni-dimensional nature of the sub-scales. The loadings of the Sales Focus items on the two extracted factors in the orthogonally rotated factor loading matrix were consistent with the theoretical distinction and classification of Direct Customer Service items and Indirect Customer Service items. Since all Sales Focus items had satisfactory high loadings (0,63 or higher, except one with a fair loading of 0,547) when the number of factors are restricted to one, the sub-scale could be retained as a single scale or be split into two homogeneous subset of items on the basis of the loading of the items on the two factors extracted. The more prudent option seemed to be not to elaborate the

proposed store manager competency structural model depicted in Figure 3.1 but rather for the moment treat the latent Sales Focus variable as a single second-order factor in the model. If good structural model fit would be found the model could in future be refined and elaborated by splitting the latent Sales Focus variable into its Direct Customer Service and Indirect Customer Service facets and by adapting the manner in which these two facets of the sales Focus competency map onto the store outcome variables. The factor analysis results for the various sub-scales are provided in the Table 4.3 below.

Table 4.3 Factor analysis results for job competency sub-scales

Sub-scales	Kaiser – Meyer – Olkin (KMO)	Maximum loading	Minimum loading	Proportion of variance accounted for by a single factor	Percentage Nonredundant residuals
Planning & Organising (A)	0,93	0,91	0,80	70,77%	14%
Controlling (B)	0,89	0,81	0,75	62,61%	23%
Supervising & Directing (C)	0,90	0,82	0,67	58,70%	23%
Motivating (D)	0,88	0,87	0,68	61,48%	33%
Coaching (E)	0,88	0,80	0,62	54,41%	61%
Sales focus (F)	0,87	0,82	0,55	53,74%	68%

The Kaiser-Meyer-Olkin (KMO) values of above 0,85 for all sub-scales indicate a high degree of common variance among the items representing each respective sub-scale (SPSS, 2005). Overall, items loadings from the different sub-scales were adequate with 84,44% of items with a loading of 0,7 or higher, 13,33% of items with loadings between 0,6 and 0,69 and only 2,22% (1 items) with a loadings between 0,5 and 0,59. Table 4.3 also shows that for most sub-scales the proportion of variance explained by the single extracted factor approaches 55% and four out of the six cases exceeded that percentage which could be regarded as satisfactory. A single extracted factor explained a somewhat lower percentage (53,74%) of the variance in the Sales Focus sub-scale items, the reason being that the construct measured by the sub-scale seems to be two-dimensional in nature as explained earlier with specific items primarily reflecting one dimension and other items primarily reflecting the other dimension. The proportion of variance in the Planning and Organising sub-

scale items accounted for by the single extracted factor could be regarded as excellent (70,772%). The percentage large non-redundant residuals, which represents the percentage of the computed difference between the observed and reproduced correlations that exceed 0,05, also seems reasonably satisfactory for all sub-scales, except for the Coaching (61%) and Sales Focus sub-scale (68%). This again indicates that a single factor provides a less satisfactory explanation for the Sales Focus observed correlation matrix.

The results of the foregoing (item and factor) analyses seem to suggest that the store manager competency scale items generally do systematically reflect their designated latent dimensions with reasonable success. Although no conclusive evidence in this regard can be derived from the foregoing analysis, it is nonetheless assumed that the scales do reflect the intended latent variables. Results on the fit of the measurement model reported below tend to increase the confidence in this position. Expanding the measurement models into a fully fledged theory driven structural model and confronting it with the relevant data via a series of confirmatory model fitting analyses utilising LISREL would, however, be needed to give serious credibility to this claim.

Composites variables had to be constructed for the purpose of fitting the comprehensive structural model since it would be somewhat burdensome to operationalise the latent variables comprising the model in terms of individual items. Each sub-scale was consequently split into 2 homogeneous subsets by calculating the unweighted average of the odd numbered items and the even numbered items of the sub-scales, thereby creating two indicators per latent variable. Where the number 1 or 2 is used at the end of a variable name it indicates that the composite is a subset of items calculated from a particular sub-scale. The distributional properties of these composite variables will subsequently be examined with descriptive techniques.

4.3.3 Data screening prior to confirmatory factor analysis

Multivariate statistics in general and structural equation modelling in particular are based on a number of critical assumptions and before proceeding with the main analyses, it was necessary to assess the fit between the data and these assumptions (Tabachnick & Fidell, 2007). Failure of the data to satisfy these assumptions can seriously erode the quality of obtained solution. The effects of outliers, nonnormality and multicollinearity and singularity in particular were considered. Where possible, the effect was minimised through transformations or deletion of data.

Composite variables were created with SPSS and imported into PRELIS. All the job competency composite variables were treated as continuous variables. A summary of some of the descriptive statistics provided by PRELIS is provided in Tables 4.4 - 4.6 below.

Table 4.4 Univariate summary statistics for job competency variables

Variable	Mean	St. Dev	Minimum	Maximum
PLAN1	3,556	0,849	1,250	5,000
PLAN2	3,581	0,905	1,000	5,000
CONT1	3,419	0,803	1,500	5,000
CONT2	3,344	0,832	1,333	5,000
SUPER1	3,497	0,808	1,000	5,000
SUPER2	3,487	0,746	1,333	5,000
MOTIV1	3,452	0,786	1,500	5,000
MOTIV2	3,500	0,796	1,000	5,000
COACH1	3,437	0,671	1,667	5,000

COACH2	3,373	0,780	1,333	5,000
FOCUS1	3,690	0,732	2,000	5,000
FOCUS2	3,591	0,777	1,200	5,000

* Effective sample size for all variables = 93

Table 4.5 Test of univariate normality for job competency variables

Variable	Skewness		Kurtosis		Skewness and Kurtosis	
	Z-Score	P-Value	Z-Score	P-Value	Chi-Square	P-Value
PLAN1	-1,130	0,258	-0,444	0,657	1,475	0,478
PLAN2	-2,080	0,038	0,223	0,823	4,377	0,112
CONT1	-0,602	0,547	-0,677	0,499	0,820	0,664
CONT2	-0,597	0,551	-0,828	0,408	1,041	0,594
SUPER1	-1,935	0,053	0,467	0,640	3,964	0,138
SUPER2	-1,645	0,100	0,532	0,595	2,988	0,224
MOTIV1	-1,383	0,167	-0,408	0,683	2,079	0,354
MOTIV2	-2,108	0,035	0,834	0,405	5,141	0,077
COACH1	-1,306	0,192	0,855	0,392	2,436	0,296
COACH2	-1,248	0,212	0,307	0,759	1,652	0,438
FOCUS1	-1,392	0,164	-1,023	0,307	2,983	0,225
FOCUS2	-2,461	0,014	0,412	0,680	6,225	0,045

Table 4.6 Test of multivariate normality for job competency variables

Skewness			Kurtosis			Skewness and Kurtosis	
Value	Z-Score	P-Value	Value	Z-Score	P-Value	Chi-Square	P-Value
47,495	10,734	0,000	210,021	6,755	0,000	160,857	0,000

4.3.3.1 Outliers

In terms of these continuous variables, it was decided to treat outliers by normalising the data. To reduce the already small sample by deleting cases did not seem sensible.

4.3.3.2 Normality

The normality of the job competency indicator variable distributions is depicted in Table 4.5. Significant p-values ($<0,05$) indicate departures from normality in terms of skewness, kurtosis or both. The Chi-Square value for skewness and kurtosis indicates that except for Focus2, all of the other composites seem normally distributed. However, Table 4.6 indicates that the hypothesis of multivariate normality for the competency indicators should be rejected. Since the quality of the solution obtained in structural equation modelling is to a large extent dependent on multivariate normality, it was decided to normalise the variables with PRELIS. The results of the test for univariate normality on the normalised indicator variables can be seen in Table 4.7, and the results of the test for multivariate normality in Table 4.8.

Table 4.7 Test of univariate normality for job competency variables after normalisation

Variable	Skewness		Kurtosis		Skewness and Kurtosis	
	Z-Score	P-Value	Z-Score	P-Value	Chi-Square	P-Value
PLAN1	-0,174	0,862	-0,202	0,840	0,071	0,965

PLAN2	-0,278	0,781	-0,303	0,762	0,169	0,919
CONT1	-0,035	0,972	-0,085	0,933	0,008	0,996
CONT2	-0,071	0,943	-0,028	0,978	0,006	0,997
SUPER1	-0,089	0,929	0,024	0,981	0,009	0,996
SUPER2	-0,108	0,914	0,027	0,979	0,012	0,994
MOTIV1	-0,021	0,983	-0,035	0,972	0,002	0,999
MOTIV2	-0,123	0,902	-0,005	0,996	0,015	0,992
COACH1	-0,067	0,946	0,094	0,925	0,013	0,993
COACH2	-0,069	0,945	-0,071	0,944	0,010	0,995
FOCUS1	-0,115	0,908	-0,162	0,872	0,039	0,980
FOCUS2	-0,053	0,957	-0,003	0,998	0,003	0,999

Table 4.8 Test of multivariate normality for job competency variables after normalisation

Skewness			Kurtosis			Skewness and Kurtosis	
Value	Z-Score	P-Value	Value	Z-Score	P-Value	Chi-Square	P-Value
49,924	11,593	0,000	214,374	7,114	0,000	184,990	0,000

The results showed that after normalisation, all variables could be accepted as being univariate normally distributed and ready for further analyses. Nonetheless, there was still not evidence of multivariate normality for the job competency indicators. Multivariate normality is also influenced by other factors other than univariate normality, e.g. linearity and homoscedasticity (Tabachnick & Fidell, 2007). According to Diamantopoulos and Siguaw (2000), it is not uncommon to still have a lack of multivariate normality when all variables are normally distributed. In terms of SEM, it

required that as far possible, only fit indices that do not assume multivariate normality were used.

Maximum likelihood estimation is the default method when fitting measurement and structural models to continuous data but it requires the multivariate normality assumption to be satisfied (Mels, 2003). The inappropriate analysis of continuous non-normal variables in structural equation models can result in incorrect standard errors and chi-square estimates (Du Toit and Du Toit, 2001; Mels, 2003). Since the normalization option had less than the desired effect, the use of an alternative method of estimation more suited to data not following a multivariate normal distribution was rather considered. Weighted least squares (WLS), diagonally weighted least squares (DWLS) and robust maximum likelihood (RML) are suggested to fit structural equation models to non-normal data (Du Toit and Du Toit, 2001; Jöreskog, Sörbom, Du Toit, and Du Toit, 2000; Mels, 2003). In accordance with the recommendation by Mels (2003) robust maximum likelihood estimation was used which then also necessitated the computation of an asymptotic covariance matrix via PRELIS that would enable the calculation of more appropriate fit indices in LISREL.

4.3.3.3 Multicollinearity and Singularity

Extremely high correlations between variables (i.e. above 0,7), caused by multicollinearity and singularity, results in redundant information and both creates logical and statistical problems. Correlations higher than 0,7 increases error terms and consequently weakens multivariate analyses, whereas correlations above 0,9 may cause unstable matrix inversion which influences the squared multiple correlation (Tabachnick & Fidell, 2007).

Various statistical tests can be employed to identify multicollinearity and singularity, e.g. Collinearity Diagnostics from SPSS. In this case, collinearity was only evaluated by inspecting the correlations between the normalised job competency variables. Instead of using the even/uneven item parcels, the averages of total sub-scales were used.

Table 4.9 Pearson correlations between job competency variables

	Planning & Organising	Controlling	Supervising & Directing	Motivating	Coaching	Sales Focus
Planning & Organising	1 0,000	0,808(**) 0,000	0,888(**) 0,000	0,754(**) 0,000	0,782(**) 0,000	0,734(**) 0,000
Controlling	0,808(**) .000	1 0,000	0,853(**) 0,000	0,764(**) 0,000	0,732(**) 0,000	0,680(**) 0,000
Supervising & Directing	0,888(**) 0,000	0,853(**) 0,000	1 0,000	0,825(**) 0,000	0,852(**) 0,000	0,722(**) 0,000
Motivating	0,754(**) 0,000	0,764(**) 0,000	0,825(**) 0,000	1 0,000	0,875(**) 0,000	0,756(**) 0,000
Coaching	0,782(**) 0,000	0,732(**) 0,000	0,852(**) 0,000	0,875(**) 0,000	1 0,000	0,731(**) 0,000
Sales Focus	0,734(**) 0,000	0,680(**) 0,000	0,722(**) 0,000	0,756(**) 0,000	0,731(**) 0,000	1

** Correlation is significant at the 0,01 level (2-tailed).

Table 4.9 shows six correlation coefficients between 0,8 and 0,9, eight between 0,7 and 0,8 and 1 between 0,6 and 0,7. Even though these correlations may increase error terms, matrix inversion would still be possible. A number of reasons can be given for this apparent multicollinearity. It may be an indication of broader second-order variables underlying the primary job competency constructs, which may need to be investigated in a follow-up study. Rating errors is another possible cause, especially halo error. Except for the questionnaire instructions, no training was provided to area managers to ensure adequate differentiation between performance dimensions. Some have suggested that behavioural dimensions will always be strongly related in a particular job environment (Latham & Wexley, 1994).

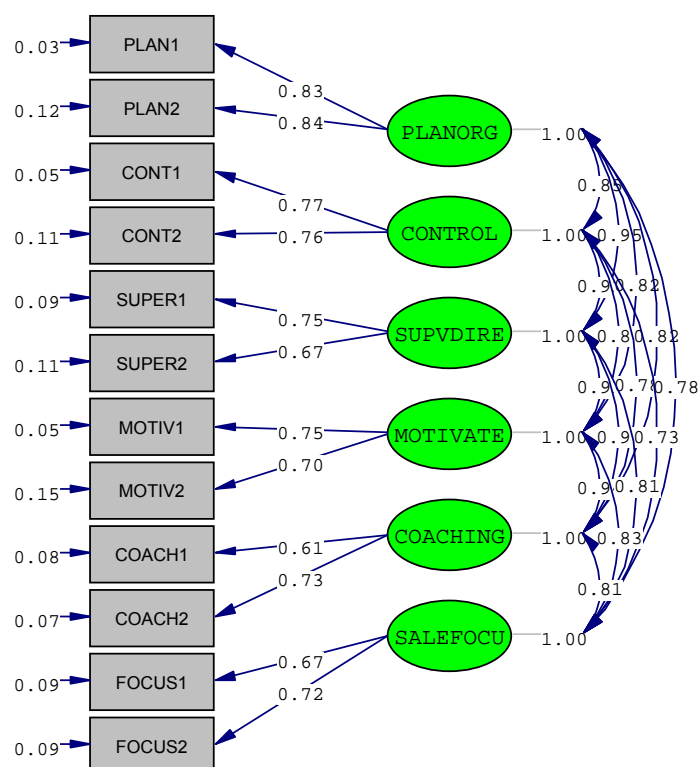
Multidimensional criteria is nonetheless essential because as Latham and Wexley (1994, p. 91) states, "...measures seldom overlap one another completely, and, more important, they facilitate accountability and control by the organisation, as well as feedback and development for the individual." The section that follows describes the results of the confirmatory factor analysis performed on the job competency measurement model.

4.3.4 Exogenous measurement model confirmatory factor analysis in LISREL

The exogenous measurement model represents the relationship between latent job competency constructs and its manifest indicators and is expressed by equation 1:

$$X = \Lambda_x \xi + \delta \text{ ----- (1)}$$

The symbol Λ_x represents a matrix of LAMDA coefficients (λ), which indicate the loading of the indicators on their designated latent variable. The vector of latent exogenous constructs are signified by the symbol ξ (KSI), whereas the symbol δ (DELTA) are used to indicate a vector of measurement error terms (Diamantopoulos & Siguaw, 2000). X represents a vector of indicator variables. Ultimately, the purpose of the measurement model is to determine whether the specified measurement model can successfully reproduce the observed covariance matrix. Consistency between the implied covariance matrix and the observed covariance matrix in the measurement part of a model would satisfy the prerequisite of valid and reliable measures for evaluating the structural model. The estimated job measurement model is next discussed and finally a decision is made on the credibility of the measurement model as represented by hypothesis 1. The visual representation of the fitted job competency measurement model is provided in Figure 4.1 and the overall fit statistics is presented in Table 4.10. Factor loading, measurement error variance and factor correlation parameters estimates are depicted in Tables 4.11, 4.12 and 4.13 respectively.



Chi-Square=49.82, df=39, P-value=0.11490, RMSEA=0.055

Figure 4.1 The estimated job competency measurement model

Table 4.10 Goodness of fit statistics for job competency measurement model

Degrees of Freedom = 39
Minimum Fit Function Chi-Square = 86,22 (P = 0,00)
Normal Theory Weighted Least Squares Chi-Square = 75,74 (P = 0,00038)
Satorra-Bentler Scaled Chi-Square = 49,82 (P = 0,11)
Chi-Square Corrected for Non-Normality = 64,61 (P = 0,0061)
Estimated Non-centrality Parameter (NCP) = 10,82
90 Percent Confidence Interval for NCP = (0,0 ; 33,09)
Minimum Fit Function Value = 0,94
Population Discrepancy Function Value (F0) = 0,12
90 Percent Confidence Interval for F0 = (0,0 ; 0,36)
Root Mean Square Error of Approximation (RMSEA) = 0,055
90 Percent Confidence Interval for RMSEA = (0,0 ; 0,096)
P-Value for Test of Close Fit (RMSEA < 0,05) = 0,40
Expected Cross-Validation Index (ECVI) = 1,39
90 Percent Confidence Interval for ECVI = (1,27 ; 1,63)
ECVI for Saturated Model = 1,70
ECVI for Independence Model = 36,82
Chi-Square for Independence Model with 66 Degrees of Freedom = 3363,00
Independence AIC = 3387,00
Model AIC = 127,82
Saturated AIC = 156,00

Independence CAIC = 3429,39
Model CAIC = 265,59
Saturated CAIC = 431,54
Normed Fit Index (NFI) = 0,99
Non-Normed Fit Index (NNFI) = 0,99
Parsimony Normed Fit Index (PNFI) = 0,58
Comparative Fit Index (CFI) = 1,00
Incremental Fit Index (IFI) = 1,00
Relative Fit Index (RFI) = 0,97
Critical N (CN) = 116,29
Root Mean Square Residual (RMR) = 0,018
Standardised RMR = 0,028
Goodness of Fit Index (GFI) = 0,88
Adjusted Goodness of Fit Index (AGFI) = 0,76
Parsimony Goodness of Fit Index (PGFI) = 0,44

As the assumption of multivariate normality could not be corroborated, an alternative Chi-Square statistic, the Satorra-Bentler Chi-Square, was used to assess how well the model fits the population covariance matrix. The Satorra-Bentler is corrected for non-normality and has the advantage that it does not require the asymptotic covariance matrix to be inverted (Jöreskog, 2002). Based on the insignificant chi-square of 49,82 ($p = 0,11$), the hypothesis of exact fit between the reproduced matrix and observed covariance matrix could not be rejected. H_{01a} is therefore not rejected. In addition, the Root Mean Square Error of Approximation (RMSEA) which assesses the approximate lack of fit indicated reasonable fit with the value of 0,055. (Diamantopoulos & Siguaw, 2000). Considering the insignificant p-value of 0,40 for the Test of Close fit ($RMSEA < 0,05$); it confirms that the observed sample results could have resulted due to sampling error under the null hypothesis of close fit. H_{01b} is therefore not rejected. Further support for the fitted model is the Expected Cross-validation Index (ECVI) which focuses on the discrepancy between population covariance matrix and the model fitted to the sample. The discrepancy value between the fitted covariance matrix and an expected covariance matrix in another sample of equivalent size is used to compare with the same discrepancy value of two other models (i.e. the saturated and independence model). The obtained ECVI value of 1,39 for the implied model is lower than the saturated and independence model ECVI values (i.e. 1,70 and 36,82 respectively) and therefore the implied can

be accepted as the most appropriate reproduced model compared to the bench mark models.

A positive picture is also expressed by the Standard Root Mean Square Residual (RMR) value, which is a summary measure of the standard residuals (Diamantopoulos & Siguaw, 2000). The model's value of 0,028 is below the generally accepted criterion value of 0,05. Also, the value of 0,88 for the Goodness of Fit Index (GFI) is close to the criterion of 0,9. The latter fit index shows that the implied model is rather successful at explaining variance in the observed covariance matrix.

The Λ_X , Θ_δ and Φ matrices with their estimated parameters are subsequently inspected to evaluate the integrity of specific indicators.

Table 4.11 Complete standardised LAMDA X (Λ_X) matrix

	PLANORG	CONTROL	SUPVDIRE	MOTIVATE	COACHING	SALEFOCU
PLAN1	0,98 (0,06) 13,53*					
PLAN2	0,92 (0,07) 11,83*					
CONT1		0,96 (0,06) 12,64*				
CONT2		0,91 (0,06) 12,10*				
SUPER1			0,93 (0,06) 12,45 *			
SUPER2			0,90 (0,06) 11,08*			
MOTIV1				0,96 (0,06) 13,42*		

MOTIV2				0,88 (0,06) 11,33 *		
COACH1					0,91 (0,05) 11,18	
COACH2					0,94 (0,06) 12,56*	
FOCUS1						0,91 (0,06) 11,94*
FOCUS2						0,93 (0,06) 11,91*

* t-values > | 1,96 | indicate significant path coefficients; values in brackets represent standard error estimates

The loadings of the indicators (Table 4.11) on the latent variables they were designed to reflect were all significant, $t > 1,96$, indicating that the parameter estimates were significantly different from zero in the population matrix (Theron, 2002). Moreover, the completely standardised factor loadings were generally high ($>0,90$). The standardised factor loadings could be interpreted as the slope of the regression on the standardised indicator variable on the standardised latent variable. Since each indicator only reflects a single indicator, the regression slope estimates in the completely standardised solution can also be interpreted as correlation coefficients. The square of the completely standardised factor loadings could therefore be interpreted as the proportion of variance in the indicator variable that is explained in terms of the variance in the latent variable to which it is linked. According to Diamantopoulos and Siguaw (2000), this suggests that the indicators are valid representations of the constructs of interest.

Error variances of the indicators were also relative low as presented by Table 4.12. One concern was the insignificant error variance for the indicator, PLAN1. As it is rather unreasonable to have no measurement error when measuring behaviour, this may be indicative of specification error.

Table 4.12 Completely standardised THETA-DELTA matrix

PLAN1	PLAN2	CONT1	CONT2	SUPER1	SUPER2
0,05 (0,02) 1,68	0,15 (0,04) 2,70*	0,08 (0,03) 2,00*	0,16 (0,04) 2,95*	0,14 (0,03) 3,23*	0,19 (0,02) 5,10*
MOTIV1	MOTIV2	COACH1	COACH2	FOCUS1	FOCUS2
0,08 (0,01) 3,69*	0,23 (0,03) 4,44*	0,17 (0,02) 3,72*	0,12 (0,02) 2,96*	0,17 (0,03) 3,29*	0,14 (0,09) 3,23*

* t-values > |1,96| indicate significant error variance estimates δ_i ; values in brackets represent standard error estimates

Inspection of the high correlations between the latent competency variables in Table 4.13 again suggests signs of multicollinearity. It has already been mentioned that follow-up studies fitting a second-order measurement model should be considered. The following hypothesised second-order structure is suggested for further analysis. In the context of PEP, the first-order competencies of Planning and Organising, as well as Controlling are behaviours concerned with structuring work activities and can therefore be hypothesised to be influenced by a higher-order factor, Management of Work Activities. In contrast, the first-order competencies of Supervising/Directing and Motivating/Coaching represent activities aimed at transferring work activities to staff through direct contact, and may be influenced by a second-order factor, Management of Staff. Supervising & Directing could also load on the second-order factor Management of Work as its predominant focus is task related instead of people-orientated. Finally, Sales Focus can be considered a third second-order factor with the two previously distinguished primary factors, Direct Customer Service Orientation and Sales Generating Activities loading on it.

Table 4.13 Completely standardised PHI matrix

	PLANORG	CONTROL	SUPVDIRE	MOTIVATE	COACHING	SALEFOCU
PLANORG	1,00					
CONTROL	0,85	1,00				
SUPVDIRE	0,95	0,92	1,00			

MOTIVATE	0,82	0,80	0,91	1,00		
COACHING	0,82	0,78	0,93	0,94	1,00	
SALEFOCU	0,78	0,73	0,81	0,83	0,81	1,00

4.3.5 Decision on the job competency measurement model hypothesis

Based on the above results, the null hypothesis H_{01b} is not rejected suggesting that the specific exogenous measurement model, reflecting the manner in which the latent variables express themselves in the indicator variables (i.e. the proposed factor structure), approximately explains the manner in which the indicator variables covary. The null hypothesis H_{01a} , hypothesising perfect fit, is also not rejected. To the extent that perfect model fit is an unlikely event in a fallible world this result is to a certain degree somewhat disconcerting. It could, however, possibly be attributed to lower statistical power due to the small sample size.

Hypothesis 1a: The specific exogenous measurement model, reflecting the manner in which the latent variables express themselves in the indicator variables (i.e. the proposed factor structure), perfectly explains the manner in which the indicator variables covary.

$H_{01a} : \Sigma = \Sigma(\Theta)$ (or RMSEA = 0)

$H_{a1a} : \Sigma \neq \Sigma(\Theta)$ (or RMSEA > 0)

Hypothesis 1b: The specific exogenous measurement model, reflecting the manner in which the latent variables express themselves in the indicator variables (i.e. the proposed factor structure), approximately explains the manner in which the indicator variables covary.

$H_{01b} : \text{RMSEA} \leq 0,05$

$H_{a1b} : \text{RMSEA} > 0,05$

4.4 Job outcome measurement model

A procedure similar to the one used to evaluate the job competency measurement model was utilised for the job outcome measurement model. Variations however had to be made to some of the statistical analysis since the job outcome measurement model comprised in addition to continuous variables, also of ordinal variables. Ordinal variables do not have the same distributional properties as continuous variables and therefore can not be treated in the same manner. Inter-correlations between ordinal variables and continuous variables were nevertheless tested with the Pearson-correlation method, which assumes the variables to be normally distributed. The items of the two sub-scales developed, Staff Capacity and Staff Satisfaction were, like the job competency sub-scales, evaluated in terms of item dimensionality and uni-dimensionality.

4.4.1 Item analysis on job outcome sub-scales developed

The alpha coefficients for the two job outcome sub-scales are presented in Table 4.14. On inspection of the item statistics calculated for the individual items within both sub-scales three items (Staff Capacity – item 7 and Staff Satisfaction – item 3 & 11) had to be flagged as potentially problematic items. These items were characterised by relatively lower inter-item correlations, relatively lower item-total correlations and squared multiple correlations. Deletion of these three items would also result in a modest increase in the coefficient of internal consistency of the sub-scales. Whereas other items in the Staff Satisfaction sub-scale are in general concerned with the store atmosphere and satisfaction with supervision, item 3 refers to satisfaction with salary and item 11 to store achievement. Before taking a final decision on the deletion of the single Staff Capacity item and the two Staff Satisfaction items, the results of the dimensionality analysis performed on the sub-scales were first inspected to gather additional information on the quality of the flagged items.

Table 4.14 Reliability of the original job outcome sub-scale measures

Sub-scale	Number of items	Alpha	Mean	Variance	Effective N
Staff Capacity (SP)	11	0,935	39,30	59,486	89
Staff Satisfaction (Satisf)	11	0,904	38,858	67,707	88

4.4.2 Factor analysis on job outcome sub-scales developed

The KMO values of above 0,90 indicate a high degree of common variance among the items representing the two sub-scales (SPSS, 2005). A single factor was extracted from the inter-item correlation matrix calculated for the sub-scale, Staff Capacity, with only item 7 showing a factor loading less than 0,6 (0,56). Based on the relative lower loading and a low item-total correlation as noticeable from the item analysis results, item 7 was deleted. This increased the proportion of variance in the Staff Capacity items explained by a single extracted factor. Deletion of item 7 from the Staff capacity sub-scale increased the coefficient of internal consistency to 0,938.

Corroborating the item analysis results, item 3 and item 11 from the Staff Satisfaction sub-scale also again proved out of step with the rest of the items in the scale in as far as they returned substantially lower and unacceptably low loadings on the single extracted factor. These two Staff Satisfaction items were consequently deleted from the original Staff Satisfaction sub-scale. The remainder of the Staff Satisfaction items loaded satisfactorily high on a single extracted factor with only a single item loading lower than 0,7. Deletion of items 3 and 11 from the Staff Satisfaction sub-scale increased the Cronbach Alpha to 0,925.

The subsequent analysis and all future references to the Staff Capacity and Staff Satisfaction sub-scales are based on the remaining 10 and nine items respectively. Table 4.15 shows the factor analytic results after deletion of the problematic items.

[illegible]

Table 4.17 Univariate summary statistics for continuous variables

Variable	Mean	St. Dev	Minimum	Maximum
Growth	17,578	8,840	-3,1,230	45,930
Marketng	81,813	9,062	52,910	97,590
Departm	82,268	9,766	48,520	98,080
Customer	86,398	12,713	45,000	100,000
CAPA1	3,592	0,716	1,600	5,000
CAPA2	3,585	0,743	1,600	5,000
SATIS1	3,602	0,846	1,375	5,000
SATIS2	3,647	0,871	1,700	5,000

Table 4.18 Test of univariate normality for job outcome continuous variables

Variable	Skewness		Kurtosis		Skewness and Kurtosis	
	Z-Score	P-Value	Z-Score	P-Value	Chi-Square	P-Value
Growth	2,634	0,008	1,665	0,096	9,711	0,008
Marketng	-3,359	0,001	1,612	0,107	13,884	0,001
Departm	-3,770	0,000	2,056	0,040	18,436	0,000
Customer	-3,072	0,002	0,536	0,592	9,723	0,008
CAPA1	-1,472	0,141	0,498	0,619	2,414	0,299
CAPA2	-1,485	0,138	-0,036	0,972	2,205	0,332

SATIS1	-0,813	0,416	-2,399	0,016	6,415	0,040
SATIS2	-1,382	0,167	-1,939	0,053	5,668	0,059

Table 4.19 Test of multivariate normality for job outcome continuous variables

Skewness			Kurtosis			Skewness and Kurtosis	
Value	Z-Score	P-Value	Value	Z-Score	P-Value	Chi-Square	P-Value
11,668	3,448	0,001	85,813	2,425	0,015	17,770	0,000

4.4.3.1 Outliers

When discrete/ordinal variables have high ratio splits between categories (e.g. 9 to 1), the smaller categories can be seen as outliers, which can cause associations with other variables to be deflated. When such unevenly split variables are not critical to the analyses, deletion of the variables should be considered (Tabachnick & Fidell, 2007). Although the ordinal variables, Administrative Compliance (Admin) and Markdown Compliance (Markdown) have relative large uneven splits between categories (Table 4.16), it seemed in order to use the variables. Somewhat deflated correlations could however be expected. Both the Stock Loss and Stock Loss Movement indicators showed a low frequency of scores in their second categories, 1, representing the cases where the stock loss percentage is between 1,8 and 2%, as well as the unusual cases where stock loss percentage is lower than 0%.

4.4.3.2 Normality

The normality of the continuous variables is depicted by Table 4.18. The p-values for the Chi-Square score for Skewness and Kurtosis indicates that except for the Staff Capacity parcels and the Staff Satisfaction parcel 2, the assumption of normality had to be rejected for all the other variables. Further inspection of the Marketing Effectiveness indicators, Marketing Standard (Marketing) and Department Focus List (Department) and the Customer Satisfaction indicator, Customer Service revealed

that these measures were all excessively negatively skewed. Again, it was decided to normalise all continuous variables with PRELIS. The new test statistic values for univariate normality can be seen in Table 4.20, and the test statistic values for multivariate normality in Table 4.21. The normalisation was successful in as far as the null hypothesis of univariate normality could not be rejected for all the transformed continuous indicator variables. Further, in contrast to the job outcome indicators, it was also not required to reject the assumption of multivariate normality. An asymptotic covariance matrix was, however, still created with PRELIS in order to request an estimation method (i.e. Weighted Least Squares) necessary for fitting a model that includes categorical variables (Du Toit & Du Toit, 2001; Mels, 2003).

Table 4.20 Test of univariate normality for job outcome continuous variables after normalisation

Variable	Skewness		Kurtosis		Skewness and Kurtosis	
	Z-Score	P-Value	Z-Score	P-Value	Chi-Square	P-Value
Growth	0,000	1,000	0,124	0,901	0,015	0,992
Marketng	0,000	1,000	0,124	0,901	0,015	0,992
Departm	-0,009	0,993	0,109	0,913	0,012	0,994
Customer	-1,440	0,150	-1,473	0,141	4,244	0,120
CAPA1	-0,085	0,932	-0,019	0,985	0,008	0,996
CAPA2	-0,110	0,912	-0,033	0,974	0,013	0,993
SATIS1	-0,165	0,869	-0,221	0,825	0,076	0,963
SATIS2	-0,227	0,820	-0,482	0,629	0,284	0,867

Table 4.21 Test of multivariate normality for job outcome continuous variables after normalisation

Skewness			Kurtosis			Skewness and Kurtosis	
Value	Z-Score	P-Value	Value	Z-Score	P-Value	Chi-Square	P-Value
7,006	-0,718	0,473	79,792	0,634	0,526	0,918	0,632

4.4.3.3 Multicollinearity and singularity

The danger of extremely high correlations between variables caused by multicollinearity and singularity has been mentioned earlier. Again correlations between variables were inspected for any sign of problematic relationships between variables. Kinnear and Gray (2000) recommend Spearman rank or Kendall's tau correlations when working with ordinal data. However, in this case, the Pearson method was employed since the majority of variables were continuous and the different coefficients generated by the different methods did not seem noteworthy. For the sub-scales, Staff Capacity and Staff Satisfaction, the overall average scores, comprising all the items in the respective sub-scales, were used instead of the two parcels per scales. Again, the normalised continuous variables were used in the analysis. The correlations are presented in Table 4.22.

Table 4.22 Pearson correlations between job outcome variables after normalisation of continuous variables

	Sales Growth	Sales Budget	Stock Loss	Stock Loss Movement	Marketing Standard	Cost Control
Sales Growth	1	0,613(**) 0,000	0,121 0,249	0,066 0,529	0,239(*) 0,021	-0,053 0,614
Sales Budget	0,613(**) 0,000	1	0,032 0,761	-0,067 0,524	-0,009 0,929	0,081 0,439
Stock Loss	0,121 0,249	0,032 0,761	1	0,490(**) 0,000	0,316(**) 0,002	-0,046 0,661
Stock Loss Movement	0,066 0,529	-0,067 0,524	0,490(**) 0,000	1	0,303(**) 0,003	0,018 0,862

Marketing Standard%	0,239(*) 0,021	-0,009 0,929	0,316(**) 0,002	0,303(**) 0,003	1	0,136 0,192
Cost Control	-0,053 0,614	0,081 0,439	-0,046 0,661	0,018 0,862	0,136 0,192	1
Admin Compliance	0,040 0,702	0,230(*) 0,026	-0,101 0,333	-0,005 0,962	0,034 0,745	0,054 0,607
Markdown Compliance	0,016 0,881	0,001 0,995	0,313(**) 0,002	0,200 0,054	0,320(**) 0,002	0,169 0,106
Department Focus	0,245(*) 0,018	-0,032 0,759	0,284(**) 0,006	0,301(**) 0,003	0,979(**) 0,000	0,102 0,333
Customer Service	0,389(**) 0,000	0,159 0,129	0,101 0,334	0,170 0,102	0,276(**) 0,007	0,167 0,109
Staff Capacity	0,155 0,138	0,240(*) 0,020	0,230(*) 0,026	0,140 0,181	0,526(**) 0,000	0,191 0,067
Staff Satisfaction	0,238(*) 0,022	0,157 0,134	0,105 0,314	0,098 0,351	0,313(**) 0,002	0,081 0,440

** Correlation is significant at the 0,01 level (2-tailed).

* Correlation is significant at the 0,05 level (2-tailed).

Table 4.22 Pearson correlations between job outcome variables after normalisation of continuous variables (continued)

	Admin Compliance	Markdown Compliance	Department Focus	Customer Service	Staff Capacity	Staff Satisfaction
Sales Growth	0,040 0,702	0,016 0,881	0,245(*) 0,018	0,389(**) 0,000	0,155 0,138	0,238(*) 0,022
Sales Budget	0,230(*) 0,026	0,001 0,995	-0,032 0,759	0,159 0,129	0,240(*) 0,020	0,157 0,134
Stock Loss	-0,101 0,333	0,313(**) 0,002	0,284(**) 0,006	0,101 0,334	0,230(*) 0,026	0,105 0,314
Stock Loss Movement	-0,005 0,962	0,200 0,054	0,301(**) 0,003	0,170 0,102	0,140 0,181	0,098 0,351
Marketing Standard	0,034 0,745	0,320(**) 0,002	0,979(**) 0,000	0,276(**) 0,007	0,526(**) 0,000	0,313(**) 0,002
Cost Control	0,054 0,607	0,169 0,106	0,102 0,333	0,167 0,109	0,191 0,067	0,081 0,440
Admin Compliance	1	0,027 0,801	0,027 0,796	0,105 0,316	0,163 0,119	0,084 0,424
Markdown Compliance	0,027 0,801	1	0,272(**) 0,008	0,182 0,081	0,159 0,128	-0,032 0,757
Department Focus	0,027 0,796	0,272(**) 0,008	1	0,228(*) 0,028	0,480(**) 0,000	0,290(**) 0,005

Customer Service	0,105 0,316	0,182 0,081	0,228(*) 0,028	1	0,155 0,137	0,165 0,115
Staff Capacity	0,163 0,119	0,159 0,128	0,480(**) 0,000	0,155 0,137	1	0,512(**) 0,000
Staff Satisfaction	0,084 0,424	-0,032 0,757	0,290(**) 0,005	0,165 0,115	0,512(**) 0,000	1

** Correlation is significant at the 0,01 level (2-tailed).

* Correlation is significant at the 0,05 level (2-tailed).

The high Pearson correlation of 0,979 for the variables, Marketing Standard and Department Focus List, confirms the singularity between them. Departmental Focus is a sub-measure of Marketing Standard, accounting for at least 90% of the Marketing Standard score. It was decided to retain these two variables as two indicators of the same latent variable. In terms of the covariance matrix, allowing this could result in redundancy between the variables. It should further be mentioned again that also the variable, Customer Service is a minor sub-measure of Marketing Standard. The argument for including this variable in the absence of any other indicator of customer satisfaction has been made in Chapter 3. The correlation of 0,276 between Customer Service and Marketing Standard did not seem problematic.

The largest concern was the number of near zero correlations in the matrix, mostly the correlations involving the ordinal variables. Diamantopoulos and Siguaw (2000) warn that very near zero correlations may cause the calculation of SEM parameter values to fail since division of zero is not algebraically defined. They explain that in such cases the model may be identified in principle, but not in practice. For a model to be identified, the number of unique elements within the covariance matrix should exceed the number of parameters to be estimated.

4.4.4 Endogenous measurement model confirmatory factor analysis in LISREL

Equation 2 denotes the Y-measurement model, which is the relationship between latent job outcome constructs and its relevant manifest indicators.

$$1. \mathbf{Y} = \mathbf{\Lambda}_y \boldsymbol{\eta} + \boldsymbol{\varepsilon} \text{-----} (2)$$

The symbol Λ_y represents a matrix of LAMDA coefficients (λ), which indicate the loading of the indicators on their designated latent variable. The vector of latent endogenous constructs are signified by the symbol η (ETA) and the symbol ε (EPSILON) is used to indicate a column vector of measurement error terms for the Y measures (Diamantopoulos & Siguaw, 2000). Y represents a column vector of observed variables.

Unlike the job competency (X) measurement model, the job outcome (Y) measurement model included ordinal variables. Since categorical/discrete variables do not have metric properties it requires an alternative estimation method. One method often used in practice, and which was also applied in this study, is the Weighted Least Squares (WLS) method. This method is part of a group called asymptotic distribution-free (ADF) estimators as it does not make assumptions concerning the distribution of the observed variables (Du Toit & du Toit, 2001).

Unfortunately, the Y-measurement model produced estimation errors to the extent that the observed data and implied model were unable to converge. According to Diamantopoulos and Siguaw (2000, p. 76), problems in estimations arise due to “(a) syntax errors in the input file, (b) error in the data file, or (c) incompatibility between data and model (i.e. the data are inadequate for the specified model or the model is wrong for the data). Error messages printed by LISREL help to recognise the problem. The error messages in this case were, “THETA EPSILON is not a positive definite” and, “The solution found non-admissible...” The estimated variances in the measurement error terms were therefore in one or more cases found to be negative which clearly is an unacceptable result. According to Diamantopoulos and Siguaw (2000) these messages may be indicative of model related problems, detected in the estimations. Noticeable near zero correlations (see Table 4.22) between certain indicator variables which were hypothesised to be associated, adds to this concern. Another explanation in addition to model related problems is the small sample size relative to the complexity of the model. This may have reduced the probability of detecting small correlations between variables. The parameter estimates were also investigated to trace the problem, but no simple answer could explain the errors. Instead of interpreting suspect parameter estimates and modifying the model further,

it was decided to revert to conventional multivariate regression analysis to acquire an understanding of possible theoretical problems underlying the model.

4.4.5 Decision on the job outcome measurement model hypothesis

Based on the LISREL output, hypothesis 2a and 2b stated below could not be verified. The null hypotheses H_{02a} and H_{02b} both had to be rejected. Not getting estimates or getting suspicious estimates do however not proof that the theoretical model is wrong as problems could have been caused by data / sample related factors.

Hypothesis 2a: The specific endogenous measurement model, reflecting the manner in which the latent variables express themselves in the indicator variables (i.e. the proposed factor structure), perfectly explains the manner in which the indicator variables covary.

$H_{02a} : \Sigma = \Sigma(\Theta)$ (or $RMSEA = 0$)

$H_{a2a} : \Sigma \neq \Sigma(\Theta)$ (or $RMSEA > 0$)

Hypothesis 2b: The specific endogenous measurement model, reflecting the manner in which the latent variables express themselves in the indicator variables (i.e. the proposed factor structure), approximately explains the manner in which the indicator variables covary.

$H_{02b} : RMSEA \leq 0,05$

$H_{a2b} : RMSEA > 0,05$

4.5 Structural Model

If both measurement models would have proven to be reliable and valid, the structural relationships between latent variables hypothesised by the proposed model depicted in Figure 3.1 could have been tested with structural equation modelling.

Equation 3 denotes the structural part of the model:

$$\boldsymbol{\eta} = \mathbf{B}\boldsymbol{\eta} + \mathbf{\Gamma}\boldsymbol{\xi} + \boldsymbol{\zeta} \text{-----} (3)$$

The symbol B represents a matrix containing the β (BETA) parameters, describing the slope of the regression of η_i on η_j . Γ is a matrix containing the γ (GAMMA) parameters, describing the slope of the regression of η_i on ξ_j (Diamantopoulos & Siguaw, 2000). ζ (PSI) represents a vector of residuals linked to the $\boldsymbol{\eta}$ (ETA) variables.

For this study, the structural model could not be fitted to the observed covariance matrix due to estimation problems with the Y-measurement model. A single decision could therefore not be made on the tenability of the proposed store manager competency structural model as a comprehensive explanation of the observed covariance matrix. It was for this reason not possible to formally evaluate hypothesis 3 presented below.

Hypothesis 3a: The specific processes or paths hypothesised by the PEP store manager competency structural model portrayed in Figure 2.2 perfectly explains the manner in which the indicator variables representing the latent competency and outcome variables comprising the model covary.

$$H_{03a} : \Sigma = \Sigma(\Theta) \text{ (or RMSEA} = 0)$$

$$H_{a3a} : \Sigma \neq \Sigma(\Theta) \text{ (or RMSEA} > 0)$$

Hypothesis 3b: The specific processes or paths hypothesised by the PEP store manager competency structural model portrayed in Figure 2.2 approximately explains the manner in which the indicator variables representing the latent competency and outcome variables comprising the model covary.

$$H_{03b} : \text{RMSEA} \leq 0,05$$

$$H_{a3b} : \text{RMSEA} > 0,05$$

Since the relationship between job competencies and job outcomes could not be investigated by evaluating the fit of the structural model through structural equation

modelling, conventional multivariate regression analysis was used as an alternative. This involved fitting a number of separate regression models thereby pronouncing separate (possible opposing) verdicts on different parts of the model. In multiple regression analysis each latent variable in the structural model needs to be operationalised in terms of a single indicator variable. Testing the model via multiple regression analysis therefore necessitated either the omission of certain indicators or the construction of composite measures from different indicators measuring a particular factor.

4.6 Standard multivariate regression analysis

To create the opportunity of evaluating the paths proposed in the store manager competency structural model (Figure 3.1) by means of regression analysis, multiple indicators of single latent variables were combined into single weighted scores and the hypotheses were reformulated to reflect these composite variables in terms of conventional regression notation. This section will firstly explain the process whereby multiple indicators were combined into single scores. This will be followed by stating the reformulated hypotheses in regression notation and discussing the results.

4.6.1 Combining multiple Indicators

Since latent variables are represented by a single indicator/measure in regression analysis, multiple indicators reflecting a particular construct were re-calculated into single composite variables. In this sense, the composite variables are treated as factor scores (Tabachnick & Fidell, 2007). In cases where a latent variable was represented by a sub-scale of items (i.e. all the competencies, Staff Capacity and Staff Satisfaction), the average score of the items comprising the scale were used as the factor score. The methods used for combining all other single indicators into composite variables are depicted in Table 4.23. Pearson correlations of the composite variables, as well as the original single variables, are displayed in Table 4.24. Variable names of composites appear in bold font. The original single variables are included in the analysis only to be referred to where additional interpretation is required.

Table 4.23 Composite variables for regression analysis

Latent variables	Multiple Indicators	Composite variable	Calculation
FinAdmin Efficiency	<ul style="list-style-type: none"> - Admin Compliance (Admin) - Cost Control (Costcntr) - Markdown Compliance (Markdown) 	FinAdmin	All 3 variables are dichotomous with the category 0 = poor and category 1= good. The unweighted mean was calculated for the three variables and treated as a continuous composite variable.
Stock Loss Control	<ul style="list-style-type: none"> - Stock loss (Stckloss) - Stock loss movement (Lossmove) 	Stckcntr	Both variables are discrete with the ordinal categories 0, 1, 2 and 3, where 0 represents poor performance and 3 good performance. The unweighted mean was calculated for the two variables and treated as a continuous composite variable.
Sales Performance	<ul style="list-style-type: none"> - Sales Growth (Growth) - Sales Budget (Salebudg) 	Saleperf	Sales Growth was recoded to a four category ordinal variable in order to be combined with Sales Budget variable's four categories (i.e. 0, 1, 2, 3). Since assumptions of normality could not be rejected for the Sales Growth variable after normalisation, percentile cut-of points of 16, 50 and 84 were used to generate interval sizes of 16%, 34%, 34% and 16%. The unweighted mean was calculated for the two variables and treated as a continuous variable.
Marketing Effectiveness	<ul style="list-style-type: none"> - Marketing Standard (Marketng) - Department focus (Departm) 	Marketng	Department focus variable was omitted since it is already a sub-measure of Marketing Standard

Table 4.24 Pearson correlations between factor variables

	Sales Growth	Sales Budget	Sales Perform	Stockloss	Stockloss Movement	Stock Control	Cost Control	Admin Compliance
Sales Growth	1	0,613(**) 0	0,862(**) 0	0,121 0,124	0,066 0,264	0,107 0,153	-0,053 0,307	0,04 0,351
Sales Budget	0,613(**) 0	1	0,902(**) 0	0,032 0,38	-0,067 0,262	-0,022 0,415	0,081 0,22	0,230(*) 0,013
Sales Performance	0,862(**) 0	0,902(**) 0	1	0,108 0,15	0,011 0,458	0,067 0,261	0,014 0,448	0,15 0,076
Stockloss	0,121 0,124	0,032 0,38	0,108 0,15	1	0,490(**) 0	0,851(**) 0	-0,046 0,33	-0,101 0,167

Stockloss Movement	0,066 0,264	-0,067 0,262	0,011 0,458	0,490(**) 0	1	0,874(**) 0	0,018 0,431	-0,005 0,481
Stock Control	0,107 0,153	-0,022 0,415	0,067 0,261	0,851(**) 0	0,874(**) 0	1	-0,015 0,445	-0,059 0,286
Cost Control	-0,053 0,307	0,081 0,22	0,014 0,448	-0,046 0,33	0,018 0,431	-0,015 0,445	1	0,054 0,303
Admin Compliance	0,04 0,351	0,230(*) 0,013	0,15 0,076	-0,101 0,167	-0,005 0,481	-0,059 0,286	0,054 0,303	1
Markdown Compliance	0,016 0,44	0,001 0,497	-0,008 0,469	0,313(**) 0,001	0,200(*) 0,027	0,295(**) 0,002	0,169 0,053	0,027 0,4
FinAdmin Efficiency	-0,001 0,495	0,16 0,063	0,077 0,23	0,093 0,188	0,116 0,134	0,122 0,123	0,681(**) 0	0,539(**) 0
Marketing Standard	0,239(*) 0,011	-0,009 0,464	0,094 0,185	0,316(**) 0,001	0,303(**) 0,002	0,358(**) 0	0,136 0,096	0,034 0,372
Customer Satisfaction	0,389(**) 0	0,159 0,064	0,273(**) 0,004	0,101 0,167	0,17 0,051	0,159 0,064	0,167 0,054	0,105 0,158
Planning & Organising	0,108 0,153	0,188(*) 0,036	0,164 0,058	0,239(*) 0,01	0,122 0,121	0,207(*) 0,023	0,151 0,074	0,173(*) 0,048
Control	0,111 0,144	0,193(*) 0,032	0,16 0,063	0,242(**) 0,01	0,127 0,112	0,211(*) 0,021	0,186(*) 0,037	0,113 0,141
Supervise & Direct	0,113 0,141	0,200(*) 0,028	0,159 0,064	0,247(**) 0,009	0,136 0,096	0,220(*) 0,017	0,214(*) 0,02	0,157 0,066
Motivate	0,223(*) 0,016	0,307(**) 0,001	0,290(**) 0,002	0,171 0,05	0,06 0,285	0,131 0,105	0,088 0,201	0,205(*) 0,024
Coach	0,108 0,152	0,139 0,092	0,122 0,122	0,184(*) 0,039	0,084 0,211	0,153 0,071	0,132 0,103	0,183(*) 0,04
Sales Focus	0,075 0,238	0,155 0,069	0,099 0,173	0,065 0,268	-0,078 0,228	-0,011 0,459	0,098 0,174	0,161 0,061
Staff Capacity	0,155 0,069	0,240(*) 0,01	0,200(*) 0,027	0,230(*) 0,013	0,14 0,091	0,212(*) 0,02	0,191(*) 0,034	0,163 0,06
Staff Satisfaction	0,238(*) 0,011	0,157 0,067	0,220(*) 0,017	0,105 0,157	0,098 0,175	0,118 0,131	0,081 0,22	0,084 0,212

** Correlation is significant at the 0,01 level (1-tailed)

* Correlation is significant at the 0,05 level (1-tailed)

Table 4.24 Pearson correlations between factor variables (continued)

	Markdown Compliance	FinAdmin Efficiency	Marketing Standard	Customer Satisfaction	Planning & Organising	Control	Supervise & Direct
Sales Growth	0,016 0,44	-0,001 0,495	0,239(*) 0,011	0,389(**) 0	0,108 0,153	0,111 0,144	0,113 0,141
Sales Budget	0,001 0,497	0,16 0,063	-0,009 0,464	0,159 0,064	0,188(*) 0,036	0,193(*) 0,032	0,200(*) 0,028

Sales Performance	-0,008 0,469	0,077 0,23	0,094 0,185	0,273(**) 0,004	0,164 0,058	0,16 0,063	0,159 0,064
Stockloss	0,313(**) 0,001	0,093 0,188	0,316(**) 0,001	0,101 0,167	0,239(*) 0,01	0,242(**) 0,01	0,247(**) 0,009
Stockloss Movement	0,200(*) 0,027	0,116 0,134	0,303(**) 0,002	0,17 0,051	0,122 0,121	0,127 0,112	0,136 0,096
Stock Control	0,295(**) 0,002	0,122 0,123	0,358(**) 0	0,159 0,064	0,207(*) 0,023	0,211(*) 0,021	0,220(*) 0,017
Cost Control	0,169 0,053	0,681(**) 0	0,136 0,096	0,167 0,054	0,151 0,074	0,186(*) 0,037	0,214(*) 0,02
Admin Compliance	0,027 0,4	0,539(**) 0	0,034 0,372	0,105 0,158	0,173(*) 0,048	0,113 0,141	0,157 0,066
Markdown Compliance	1	0,648(**) 0	0,320(**) 0,001	0,182(*) 0,041	0,196(*) 0,03	0,175(*) 0,047	0,196(*) 0,03
FinAdmin Efficiency	0,648(**) 0	1	0,267(**) 0,005	0,244(**) 0,009	0,277(**) 0,004	0,255(**) 0,007	0,304(**) 0,002
Marketing Standard	0,320(**) 0,001	0,267(**) 0,005	1	0,276(**) 0,004	0,474(**) 0	0,419(**) 0	0,521(**) 0
Customer Satisfaction	0,182(*) 0,041	0,244(**) 0,009	0,276(**) 0,004	0,228(*) 0,014	0,136 0,096	0,133 0,102	0,206(*) 0,024
Planning & Organising	0,196(*) 0,03	0,277(**) 0,004	0,474(**) 0	0,136 0,096	1	0,808(**) 0	0,888(**) 0
Control	0,175(*) 0,047	0,255(**) 0,007	0,419(**) 0	0,133 0,102	0,808(**) 0	1	0,853(**) 0
Supervise & Direct	0,196(*) 0,03	0,304(**) 0,002	0,521(**) 0	0,206(*) 0,024	0,888(**) 0	0,853(**) 0	1
Motivate	0,056 0,297	0,181(*) 0,041	0,412(**) 0	0,146 0,082	0,754(**) 0	0,764(**) 0	0,825(**) 0
Coach	0,11 0,147	0,224(*) 0,015	0,445(**) 0	0,158 0,065	0,782(**) 0	0,732(**) 0	0,852(**) 0
Sales Focus	0,101 0,167	0,190(*) 0,034	0,380(**) 0	0,07 0,254	0,734(**) 0	0,680(**) 0	0,722(**) 0
Staff Capacity	0,159 0,064	0,274(**) 0,004	0,526(**) 0	0,155 0,069	0,793(**) 0	0,709(**) 0	0,853(**) 0
Staff Satisfaction	-0,032 0,379	0,07 0,254	0,313(**) 0,001	0,165 0,057	0,478(**) 0	0,471(**) 0	0,454(**) 0

** Correlation is significant at the 0,01 level (1-tailed)

* Correlation is significant at the 0,05 level (1-tailed)

Table 4.24 Pearson correlations between factor variables (continued)

	Motivate	Coach	Sales Focus	Staff Capacity	Staff Satisfaction
Sales Growth	0,223(*) 0,016	0,108 0,152	0,075 0,238	0,155 0,069	0,238(*) 0,011
Sales Budget	0,307(**) 0,001	0,139 0,092	0,155 0,069	0,240(*) 0,01	0,157 0,067
Sales Performance	0,290(**) 0,002	0,122 0,122	0,099 0,173	0,200(*) 0,027	0,220(*) 0,017
Stockloss	0,171 0,05	0,184(*) 0,039	0,065 0,268	0,230(*) 0,013	0,105 0,157
Stockloss Movement	0,06 0,285	0,084 0,211	-0,078 0,228	0,14 0,091	0,098 0,175
Stock Control	0,131 0,105	0,153 0,071	-0,011 0,459	0,212(*) 0,02	0,118 0,131
Cost Control	0,088 0,201	0,132 0,103	0,098 0,174	0,191(*) 0,034	0,081 0,22
Admin Compliance	0,205(*) 0,024	0,183(*) 0,04	0,161 0,061	0,163 0,06	0,084 0,212
Markdown Compliance	0,056 0,297	0,11 0,147	0,101 0,167	0,159 0,064	-0,032 0,379
FinAdmin Efficiency	0,181(*) 0,041	0,224(*) 0,015	0,190(*) 0,034	0,274(**) 0,004	0,07 0,254
Marketing Standard	0,412(**) 0	0,445(**) 0	0,380(**) 0	0,526(**) 0	0,313(**) 0,001
Customer Satisfaction	0,146 0,082	0,158 0,065	0,07 0,254	0,155 0,069	0,165 0,057
Planning & Organising	0,754(**) 0	0,782(**) 0	0,734(**) 0	0,793(**) 0	0,478(**) 0
Control	0,764(**) 0	0,732(**) 0	0,680(**) 0	0,709(**) 0	0,471(**) 0
Supervise & Direct	0,825(**) 0	0,852(**) 0	0,722(**) 0	0,853(**) 0	0,454(**) 0
Motivate	1 0	0,875(**) 0	0,756(**) 0	0,776(**) 0	0,568(**) 0
Coach	0,875(**) 0	1 0	0,731(**) 0	0,842(**) 0	0,481(**) 0
Sales Focus	0,756(**) 0	0,731(**) 0	1 0	0,767(**) 0	0,458(**) 0
Staff Capacity	0,776(**) 0	0,842(**) 0	0,767(**) 0	1 0	0,512(**) 0

Staff Satisfaction	0,568(**) 0	0,481(**) 0	0,458(**) 0	0,512(**) 0	1
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** Correlation is significant at the 0,01 level (1-tailed)

* Correlation is significant at the 0,05 level (1-tailed)

4.6.2 Reformulated Hypotheses and Results

4.6.2.1 Hypotheses

To allow a comparison between the original statistical hypotheses and the revised hypotheses, the original SEM hypotheses together with the reformulated (i.e. standard multiple regression) hypotheses are presented in Table 4.25. Note that only the alternative SEM hypotheses are stated and not the null hypotheses. Also note that the reformulated hypotheses, and the models it represents, are not identical to the original hypotheses in a statistical sense. Although presented as a single model, each regression equation represents a separate model (numbered A to G) and indirect effects are not assessed. To remain true to the distinction made in the original structural model (Figure 3.1) between latent endogenous and exogenous variables, all indicator variables representing latent endogenous variables will be depicted by the symbol Y even if such a variable serves as a predictor in the regression model in question. All indicator variables representing latent endogenous variables will be depicted by the symbol X. Footnotes, moreover, will be determined by the numbering convention originally used in Figure 3.1. To ensure clarity, the criterion variable or dependent variable for each regression model is indicated at the top of the set of hypotheses relevant to the specific model.

Table 4.25 Reformulated hypotheses

Original hypotheses in LISREL notation	Reformulated hypotheses in regression notation
A. Dependent Variable = Sale Performance (Y_1)	
$H_{a4} : \beta_{13} > 0$	1. $H_{01} : \beta[Y_3] = 0 \mid \beta[Y_2] \neq 0$ $H_{a1} : \beta[Y_3] > 0 \mid \beta[Y_2] \neq 0$
$H_{a5} : \beta_{12} > 0$	2. $H_{02} : \beta[Y_2] = 0 \mid \beta[Y_3] \neq 0$ $H_{a2} : \beta[Y_2] > 0 \mid \beta[Y_3] \neq 0$

B. Dependent Variable = Stock Control (Y_4)	
$H_{a6} : \beta_{45} > 0$	3. $H_{03} : \beta[Y_5] = 0 \mid \beta[Y_2] \neq 0$ $H_{a3} : \beta[Y_5] > 0 \mid \beta[Y_2] \neq 0$
$H_{a7} : \beta_{42} > 0$	4. $H_{04} : \beta[Y_2] = 0 \mid \beta[Y_5] \neq 0$ $H_{a4} : \beta[Y_2] > 0 \mid \beta[Y_5] \neq 0$
C. Dependent Variable = Fin/Admin Efficiency (Y_5)	
$H_{a8} : \beta_{56} > 0$	5. $H_{05} : \beta[Y_6] = 0 \mid \beta[X_1] \neq 0, \beta[X_2] \neq 0$ $H_{a5} : \beta[Y_6] > 0 \mid \beta[X_1] \neq 0, \beta[X_2] \neq 0$
$H_{a9} : \gamma_{51} > 0$	6. $H_{06} : \beta[X_1] = 0 \mid \beta[Y_6] \neq 0, \beta[X_2] \neq 0$ $H_{a6} : \beta[X_1] > 0 \mid \beta[Y_6] \neq 0, \beta[X_2] \neq 0$
$H_{a10} : \gamma_{52} > 0$	7. $H_{07} : \beta[X_2] = 0 \mid \beta[Y_6] \neq 0, \beta[X_1] \neq 0$ $H_{a7} : \beta[X_2] > 0 \mid \beta[Y_6] \neq 0, \beta[X_1] \neq 0$
D. Dependent Variable = Marketing Effectiveness (Y_2)	
$H_{a11} : \beta_{26} > 0$	8. $H_{08} : \beta[Y_6] = 0 \mid \beta[X_1] \neq 0, \beta[X_2] \neq 0, \beta[X_6] \neq 0$ $H_{a8} : \beta[Y_6] > 0 \mid \beta[X_1] \neq 0, \beta[X_2] \neq 0, \beta[X_6] \neq 0$
$H_{a12} : \gamma_{21} > 0$	9. $H_{09} : \beta[X_1] = 0 \mid \beta[Y_6] \neq 0, \beta[X_2] \neq 0, \beta[X_6] \neq 0$ $H_{a9} : \beta[X_1] > 0 \mid \beta[Y_6] \neq 0, \beta[X_2] \neq 0, \beta[X_6] \neq 0$
$H_{a13} : \gamma_{22} > 0$	10. $H_{010} : \beta[X_2] = 0 \mid \beta[Y_6] \neq 0, \beta[X_1] \neq 0, \beta[X_6] \neq 0$ $H_{a10} : \beta[X_2] > 0 \mid \beta[Y_6] \neq 0, \beta[X_1] \neq 0, \beta[X_6] \neq 0$
$H_{a14} : \gamma_{26} > 0$	11. $H_{011} : \beta[X_6] = 0 \mid \beta[Y_6] \neq 0, \beta[X_1] \neq 0, \beta[X_2] \neq 0$ $H_{a11} : \beta[X_6] > 0 \mid \beta[Y_6] \neq 0, \beta[X_1] \neq 0, \beta[X_2] \neq 0$
E. Dependent Variable = Customer Satisfaction (Y_3)	
$H_{a15} : \beta_{32} > 0$	12. $H_{012} : \beta[Y_2] = 0 \mid \beta[Y_6] \neq 0, \beta[X_6] \neq 0$ $H_{a12} : \beta[Y_2] > 0 \mid \beta[Y_6] \neq 0, \beta[X_6] \neq 0$
$H_{a16} : \beta_{36} > 0$	13. $H_{013} : \beta[Y_6] = 0 \mid \beta[Y_2] \neq 0, \beta[X_6] \neq 0$ $H_{a13} : \beta[Y_6] > 0 \mid \beta[Y_2] \neq 0, \beta[X_6] \neq 0$
$H_{a17} : \gamma_{36} > 0$	14. $H_{014} : \beta[X_6] = 0 \mid \beta[Y_6] \neq 0, \beta[Y_2] \neq 0$ $H_{a14} : \beta[X_6] > 0 \mid \beta[Y_6] \neq 0, \beta[Y_2] \neq 0$
F. Dependent Variable = Staff Capacity (Y_6)	
$H_{a18} : \beta_{67} > 0$	15. $H_{015} : \beta[Y_7] = 0 \mid \beta[X_3] \neq 0, \beta[X_4] \neq 0, \beta[X_5] \neq 0$ $H_{a15} : \beta[Y_7] > 0 \mid \beta[X_3] \neq 0, \beta[X_4] \neq 0, \beta[X_5] \neq 0$
$H_{a19} : \gamma_{63} > 0$	16. $H_{016} : \beta[X_3] = 0 \mid \beta[Y_7] \neq 0, \beta[X_4] \neq 0, \beta[X_5] \neq 0$ $H_{a16} : \beta[X_3] > 0 \mid \beta[Y_7] \neq 0, \beta[X_4] \neq 0, \beta[X_5] \neq 0$
$H_{a20} : \gamma_{64} > 0$	17. $H_{017} : \beta[X_4] = 0 \mid \beta[Y_7] \neq 0, \beta[X_3] \neq 0, \beta[X_5] \neq 0$ $H_{a17} : \beta[X_4] > 0 \mid \beta[Y_7] \neq 0, \beta[X_3] \neq 0, \beta[X_5] \neq 0$
$H_{a21} : \gamma_{65} > 0$	18. $H_{018} : \beta[X_5] = 0 \mid \beta[Y_7] \neq 0, \beta[X_3] \neq 0, \beta[X_4] \neq 0$ $H_{a18} : \beta[X_5] > 0 \mid \beta[Y_7] \neq 0, \beta[X_3] \neq 0, \beta[X_4] \neq 0$

G. Dependent Variable = Staff Satisfaction (Y_7)	
$H_{a22}: \beta_{71} > 0$	19. $H_{019}: \beta[Y_1] = 0 \mid \beta[Y_4] \neq 0, \beta[Y_2] \neq 0, \beta[X_4] \neq 0$ $H_{a19}: \beta[Y_1] > 0 \mid \beta[Y_4] \neq 0, \beta[Y_2] \neq 0, \beta[X_4] \neq 0$
$H_{a23}: \beta_{74} > 0$	20. $H_{020}: \beta[Y_4] = 0 \mid \beta[Y_1] \neq 0, \beta[Y_2] \neq 0, \beta[X_4] \neq 0$ $H_{a20}: \beta[Y_4] > 0 \mid \beta[Y_1] \neq 0, \beta[Y_2] \neq 0, \beta[X_4] \neq 0$
$H_{a24}: \beta_{72} > 0$	21. $H_{021}: \beta[Y_2] = 0 \mid \beta[Y_1] \neq 0, \beta[Y_4] \neq 0, \beta[X_4] \neq 0$ $H_{a21}: \beta[Y_2] > 0 \mid \beta[Y_1] \neq 0, \beta[Y_4] \neq 0, \beta[X_4] \neq 0$
$H_{a25}: \gamma_{74} > 0$	22. $H_{022}: \beta[X_4] = 0 \mid \beta[Y_1] \neq 0, \beta[Y_4] \neq 0, \beta[Y_2] \neq 0$ $H_{a22}: \beta[X_4] > 0 \mid \beta[Y_1] \neq 0, \beta[Y_4] \neq 0, \beta[Y_2] \neq 0$

The manner in which the original structural model had been operationalised to permit the use of multiple linear regression analysis as an alternative analysis strategy is depicted schematically in Figure 4.2

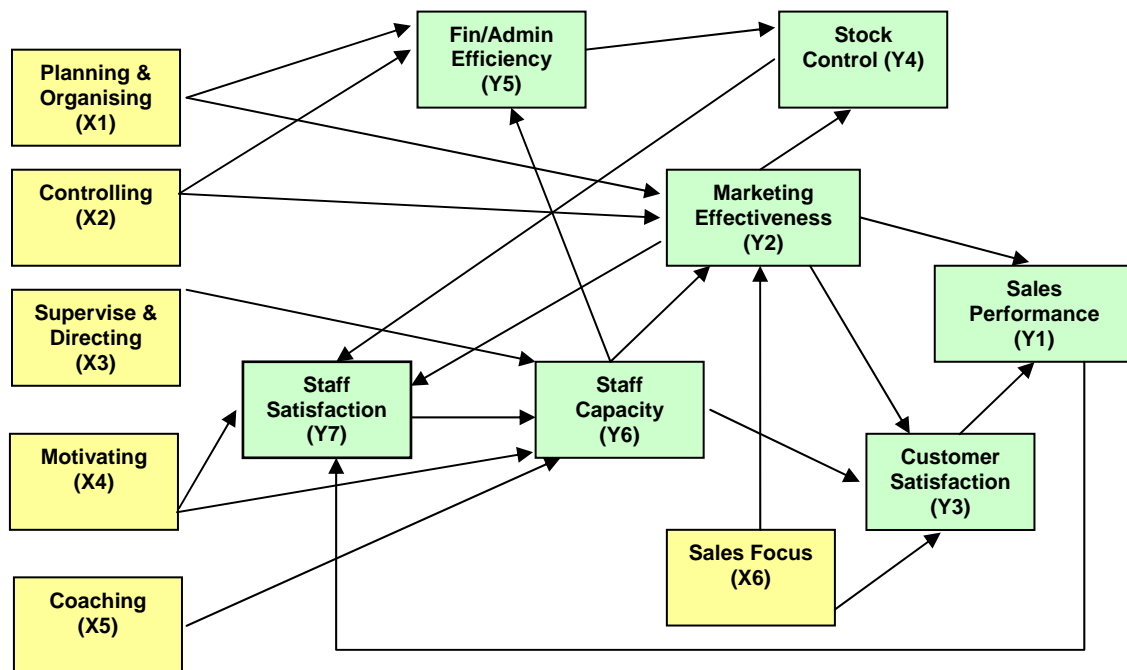


Figure 4.2 Structural model in conventional regression notation

4.6.2.2 Results

SPSS was employed to perform linear multivariate regression analysis on each of the seven models (A – G) independently. A summary of the test results are provided in Table 4.26. The table displays R , adjusted R^2 and the F statistic for the fitted model. The table also includes the simple bivariate correlation between independent and dependent variables (non-zero correlations), the significance of the regression

coefficients (t statistics), and finally, the partial (r_i^2) and semi-partial (sr_i^2) correlations. Significant ($p < 0,05$), F values, t values and non-zero correlations are indicated in bold. A discussion of each model in terms of the stated hypotheses follows the results.

Table 4.26 Results of regression analysis

Model A (Dependent Variable = Sales Performance Y1)					
R = 0,274 ; F = 3,657 (0,030)					
Adjusted R ² = 0,055					
Independent variables	Non –Zero Correlations	Unstd. Regres. Coeff.	t value (sig.)	Partial Correl.	Semi-partial Correl.
Customer Satisfaction (Y3)	0,273 (0,004)	0,019	2,541 (0,013)	0,259	0,258
Marketing Effectiveness (Y2)	0,094 (0,185)	0,002	0,190 (0,849)	0,020	0,019
Model B (Dependent Variable = Stock Control Y4)					
R = 0,359 ; F = 6,661 (0,002)					
Adjusted R ² = 0,110					
Independent variables	Non –Zero Correlations	Unstd. Regres. Coeff.	t value (sig.)	Partial Correl.	Semi-partial Correl.
FinAdmin Efficiency (Y5)	0,122 (0,123)	0,088	0,274 (0,785)	0,029	0,027
Marketing Effectiveness (Y2)	0,358 (0,000)	0,036	3,434 (0,001)	0,340	0,338
Model C (Dependent Variable = Fin/Admin Efficiency Y5)					
R = 0,293 ; F = 2,788 (0,045)					
Adjusted R ² = 0,055					
Independent variables	Non –Zero Correlations	Unstd. Regres. Coeff.	t value (sig.)	Partial Correl.	Semi-partial Correl.
Staff Capacity (Y6)	0,274 (0,004)	0,056	0,790 (0,431)	0,083	0,080
Planning & Organising (X1)	0,277 (0,004)	0,041	0,580 (0,561)	0,062	0,059
Controlling (X2)	0,255 (0,007)	0,024	0,371 (0,711)	0,039	0,038

Model D (Dependent Variable = Marketing Effectiveness Y2)					
R = 0,540 ; F = 9,034 (0,000)					
Adjusted R ² = 0,259					
Independent variables	Non –Zero Correlations	Unstd. Regres. Coeff.	t value (sig.)	Partial Correl.	Semi-partial Correl.
Staff Capacity (Y6)	0,526 (0,000)	5,865	2,764 (0,007)	0,283	0,248
Planning & Organising (X1)	0,474 (0,000)	1,764	0,906 (0,367)	0,096	0,081
Controlling (X2)	0,419 (0,000)	0,498	0,277 (0,783)	0,029	0,025
Sales Focus (X6)	0,380 (0,000)	-1,513	-0,817 (0,416)	-0,087	-0,073
Model E (Dependent Variable = Customer Satisfaction Y3)					
R = 0,284 ; F = 2,605 (0,057)					
Adjusted R ² = 0,050					
Independent variables	Non –Zero Correlations	Unstd. Regres. Coeff.	t value (sig.)	Partial Correl.	Semi-partial Correl.
Marketing Effectiveness (Y2)	0,276 (0,004)	0,372	2,215 (0,029)	0,229	0,225
Staff Capacity (Y6)	0,155 (0,069)	1,738	0,560 (0,577)	0,059	0,057
Sales Focus (X6)	0,070 (0,254)	-1,833	-0,665 (0,508)	-0,070	-0,068
Model F (Dependent Variable = Staff Capacity Y6)					
R = 0,887 ; F = 80,964 (0,000)					
Adjusted R ² = 0,777					
Independent variables	Non –Zero Correlations	Unstd. Regres. Coeff.	t value (sig.)	Partial Correl.	Semi-partial Correl.
Staff Satisfaction (Y7)	0,512 (0,000)	0,116	2,090 (0,039)	0,217	0,103
Supervising & Directing (X3)	0,853 (0,000)	0,467	4,998 (0,000)	0,470	0,246
Motivating (X4)	0,776 (0,000)	-0,073	-0,689 (0,493)	-0,073	-0,034
Coaching (X5)	0,842 (0,000)	0,437	3,698 (0,000)	0,366	0,182
Model G (Dependent Variable = Staff Satisfaction Y7)					
R = 0,578 ; F = 11,020 (0,000)					
Adjusted R ² = 0,303					
Independent variables	Non –Zero Correlations	Unstd. Regres. Coeff.	t value (sig.)	Partial Correl.	Semi-partial Correl.
Sale Performance (Y1)	0,220 (0,017)	0,054	0,688 (0,493)	0,073	0,060
Stock Loss Control (Y4)	0,118 (0,131)	0,011	0,144 (0,886)	0,015	0,012
Marketing Effectiveness (Y2)	0,313 (0,001)	0,008	0,912 (0,912)	0,097	0,079
Motivating (X4)	0,568 (0,000)	0,510	5,126 (0,000)	0,480	0,446

Model A (Dependent Variable: Sales Performance): Customer Satisfaction showed, as expected, a significant ($p < 0,05$) effect on Sales Performance when included in a model already containing Marketing Effectiveness. H_{01} can therefore be rejected. Considering that the Customer Satisfaction measure in this study used a substitute measure to represent the view of customers, an improved measure of Customer Satisfaction may have demonstrated an even stronger impact on Sales Performance.

H_{02} could however not be rejected. The insignificant ($p > 0,05$) relationship between Marketing Effectiveness and Sales Performance is rather unusual taking marketing theory in consideration. The relationship between Marketing Effectiveness and one of the original Sales Performance's indicators, Sales Growth, is however significant ($r = 0,239$; $p = 0,011$) (see Table. 4.24). This relationship is however small in practical terms when taking in account the amount of time spent on Marketing Effectiveness by area managers and store staff. The insignificant relationship between Marketing Effectiveness and the second original Sales Performance indicator, Sales Budget, could also raise doubt in terms of the process whereby budgets are determined per store.

Model B (Dependent Variable = Stock Control): Another unexpected result is the insignificant relationship between Financial/Administrative Efficiency and Stock Control when controlling for Marketing Effectiveness. H_{03} can therefore not be rejected. Theoretically it would be expected that compliance with control systems will limit Stock Loss. Although one of the original Fin/Admin Efficiency indicators, Markdown correlates significantly with Stock Control ($r = 0,295$; $p = 0,002$), the other two indicators do not correlate significantly with Stock Control (see table 4.24). It is possible that the Fin/Admin Efficiency measure may be too general, representing controlling mechanisms not all targeted at stock loss prevention, thereby not accounting for significant variance in Stock Control. However, the strong relationship between Marketing Effectiveness and Stock Control shows that effort in terms of upholding PEP Marketing Standards does limit stock loss. When controlling for Fin/Admin Efficiency, Marketing Effectiveness explains 11,4% ($0,338^2$) of the variance in Stock Control success and H_{04} can consequently be rejected.

Model C (Dependent Variable = Fin/Admin Efficiency): All three independent variables, Staff Capacity, Planning and Organising and Controlling have a significant relationship with Fin/Admin Efficiency if correlated independently. The predictors however probably explain the same variance in Fin/Admin Efficiency as the regression coefficients for all three variables are insignificant ($p > 0,05$) when included simultaneously in the regression model. H_{05} , H_{06} and H_{07} can therefore not be rejected.

Model D (Dependent Variable = Marketing Effectiveness): Staff Capacity, Planning and Organising, Controlling and Sales Focus show a significant relationship with Marketing Effectiveness when tested independently. Staff Capacity is however the only predictor with a significant regression coefficient when all the variables are included in the regression model simultaneously. This could indicate that the other variables do not add something unique to the regression. H_{09} , H_{010} and H_{011} can therefore not be rejected, but H_{08} can be rejected. The strong significant relationships between these independent variables and Staff Capacity could suggest that they mediate their effect on Marketing Effectiveness via Staff Capacity. The total variance in Marketing Effectiveness explained by the regression model is 25,9% and the proportion attributable to the unique variance in Staff Capacity, not shared with the other effects in the regression model, is 6,2% ($0,248^2$).

Model E (Dependent Variable = Customer Satisfaction): The regression model does not significantly explain variance in Customer Satisfaction ($F=2,605$; $p=0,057$). This can somehow be expected considering the insignificant bivariate correlations that both, Staff Capacity and Sales Focus, have with Customer Satisfaction. The regression coefficient for Marketing Effectiveness is however significant ($p < 0,05$). A post hoc evaluation of the model with Marketing Effectiveness as the only independent variable does result in significant F statistics. H_{013} and H_{014} can therefore not be rejected, but H_{012} can be rejected. Again, the inferiority of the Customer Satisfaction indicator, Customer service, has to be mentioned. Even the Marketing Effectiveness correlation is suspect by the fact that Customer Service is a sub-score within the Marketing Effectiveness indicator, PEP Marketing Standard. In view of the fact that Customer Satisfaction may have a substantial impact on Sales

Performance, PEP management should seriously consider developing a reliable and valid measure of Customer Satisfaction and determine the predictors thereof.

Model F (Dependent Variable = Staff Capacity): The three competencies, Supervising and Directing, Motivating and Coaching, as well as the job outcome, Staff Satisfaction have a strong significant influence on Staff Capacity in terms of their non-zero correlations. The regression accounts for 77,7% variance in Staff Capacity and only Motivating does not show a significant regression coefficient when included simultaneous with the other variables in the model. H_{015} , H_{016} and H_{018} can therefore be rejected, but H_{017} can not be rejected. The role of Staff Satisfaction in regression may also be underestimated considering the method in which data was gathered. The three competencies were rated by the same person (i.e. the area manager) assessing Staff Capacity, whereas Staff Satisfaction was rated by sales assistants. The strong relationship between Staff Satisfaction and Staff Capacity seems rather extraordinary and suggests that management should consider investing more in increasing Staff Satisfaction. The ex post facto nature of the research design should, however, be kept in mind when interpreting these results.

Model G (Dependent Variable = Staff Satisfaction): The assumptions about the relationships between Staff Satisfaction and the rewards and feedback given to Sales Assistants in terms of Sales Performance and Marketing Effectiveness are statistical supported by the significant non-zero correlations of 0,248 and 0,311 respectively. The fact that performance in terms of Stock Control does not show a relationship with Staff Satisfaction may be due to the assistants not believing they have control over the former. When all the independent variables are entered into the regression only Motivating explains unique variance in Staff Satisfaction and none of the job outcomes explain a significant proportion of variance. H_{019} , H_{020} and H_{020} can therefore not be rejected, but H_{0122} can be rejected. This implies that it would be beneficial for management to continue adding interventions aimed at developing Store Managers' competence in motivating their store staff.

4.6.3 Traditional Hypotheses and Results

The effect of job competencies on the bottom-line job outcomes, Sales Performance and Stock Control are mediated through various other job outcomes, e.g. Marketing Effectiveness, Staff Capacity and Staff Satisfaction. The potential benefits of mapping and understanding this interrelated structure have already been discussed. The proposed store manager competency structural model assumed that none of the managerial competencies have a direct impact on Sales Performance or Stock Control. Nevertheless, it would be beneficial to also estimate the direct effect of job competencies on the bottom-line job outcomes since the former is traditionally evaluated in terms of the latter. The most straight forward method (not being able to apply SEM) to determine the total effect of job competencies on the bottom-line job outcomes was to exclude all the hypothesised mediators from the competency structural model. Figure 4.3 illustrates the direct effect relationships between the constructs of interest, with the results thereof presented in Table 4.27.

The ideal would have been to determine, via SEM, the proportion of variance explained in the latent Sales Performance and Stock Control variables by the proposed model as an entity. This would also have permitted the estimation of the total effect each managerial competency has on these two primary outcome variables. Unfortunately the ill-fitting endogenous measurement model prevented following up on these possibilities.

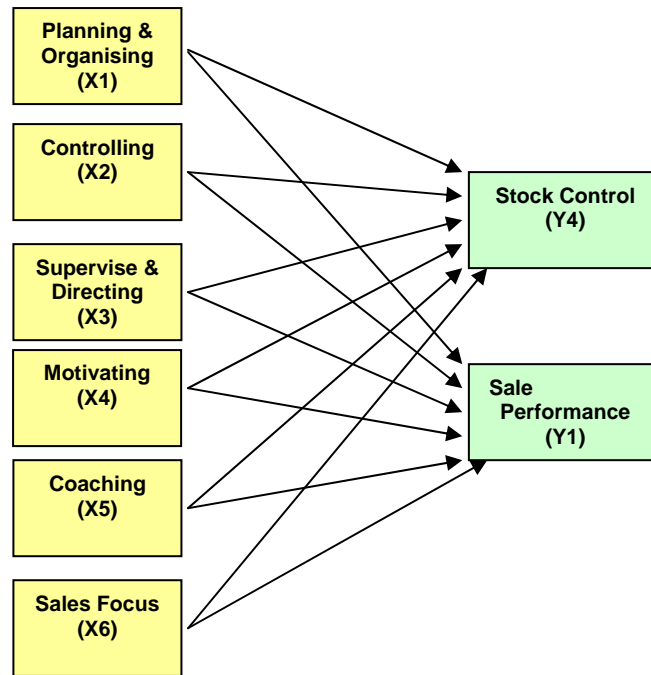


Figure 4.3 Traditional performance model

Table 4.27 Results of Regression Analysis for Traditional Structure

Model H (Dependent Variable = Sales Performance Y1)					
R = 0,427 ; F = 3,199 (0,007)					
Adjusted R ² = 0,125					
Independent variables	Non –Zero Correlations	Unstd. Regres. Coeff.	t value (sig.)	Partial Correl.	Semi-partial Correl.
Planning & Organising (X1)	0,164 (0,058)	0,210	0,896 (0,373)	0,096	0,087
Controlling (X2)	0,160 (0,063)	-0,095	-0,428 (0,670)	-0,046	-0,042
Supervise & Directing (X3)	0,159 (0,064)	-0,080	-0,239 (0,812)	-0,026	-0,023
Motivating (X4)	0,290 (0,002)	1,053	3,987 (0,000)	0,395	0,389
Coaching (X5)	0,122 (0,122)	-0,686	-2,298 (0,024)	-0,241	-0,224
Sales Focus (X6)	0,099 (0,173)	-0,285	-1,453 (0,150)	-0,155	-0,142

Model I (Dependent Variable = Stock Control Y4)					
R = 0,353 ; F = 2,038 (0,069)					
Adjusted R ² = 0,063					
Independent variables	Non –Zero Correlations	Unstd. Regres. Coeff.	t value (sig.)	Partial Correl.	Semi-partial Correl.
Planning & Organising (X1)	0,207 (0,023)	0,221	0,864 (0,390)	0,093	0,087
Controlling (X2)	0,211 (0,021)	0,178	0,737 (0,463)	0,079	0,074
Supervise & Directing (X3)	0,220 (0,017)	0,235	0,645 (0,520)	0,069	0,065
Motivating (X4)	0,131 (0,105)	-0,009	-0,031 (0,975)	-0,003	-0,003
Coaching (X5)	0,153 (0,071)	0,050	0,153 (0,879)	0,017	0,015
Sales Focus (X6)	-0,011 (0,459)	-0,535	-2,500 (0,014)	-0,260	-0,252

Model H (Dependent Variable = Sales Performance):

Both Motivating and Coaching explain unique variance in Sales Performance with the semi-partial correlations being 0,389 and -0,224 respectively. Comparing the non-zero correlations for Motivating ($r=0,290$; $p=0,002$) and Coaching ($r=0,122$; $p=0,122$) with the semi-partial correlations strongly suggest that suppressor variables may be acting on both variables.

The significant relationships between Motivating and the job outcomes Staff Capacity and Staff Satisfaction, and the significant effect of the latter on Sales Performance, can suggest that these outcome variables may be mediating the effect of Motivating on Sales Performance. Although this structural path may not be understood perfectly in the absence of structural equation modelling, the extent to which Store Managers are competent in motivating their staff seems to play a part in generating revenue.

A post hoc evaluation of the effect of Motivating on Sales Performance when included as the only independent variable in the model results in a semi-partial correlation of 0,290. At first the 7,4% ($0,290^2$) Sales Performance variance being accounted for by the competency, Motivating may seem trivial. When considering however the amount of external factors, as well as the Store Manager's lack of control over many business decisions, e.g. the purchasing process, store layout, procedures etc., 7,4% seems rather noteworthy. It puts the contribution of 7,4% in

perspective when taking into account that 7,4% of PEP's annual turnover of approximately 7 billion rand accounts to R532 000 000. It can also be argued that the real effect is much more than 7,4% without the limiting effect of range restriction.

Model I (Dependent Variable = Stock Control): The only competency explaining unique variance in Stock Control is Sales Focus. This negative significant correlation seems however to be the result of suppressor variables. The competencies, Planning & Organising, Controlling and Supervising & Directing correlated significantly with Stock Control when analysed independently, but none of them appeared to explain unique variance in Stock Control as indicated by their insignificant regression coefficients when entered into the regression model simultaneously. Motivating and Coaching did not show a significant effect on Stock Control, and their non-zero correlations were also insignificant.

It could be argued that the significant predictors are all the competencies representing a higher order competency concerned with traditional task-related activities opposed to more people-focussed activities. It could further be theorised that these task-related competencies may be most relevant for controlling purposes, whereas a more people-focussed competency like Motivating, are more important for stimulating sales.

4.7 Conclusion

The chapter began with an investigation and refinement of the measuring scales developed. This was followed by examining the data, and correcting where possible, for departures from normality. The X-measurement model (Job competency measures) was assessed with LISREL and showed appropriate fit. The Y-measurement model could not converge and consequently the structural model could not be assessed with SEM. Taking the limitations in consideration, standard multivariate regression were used to examine the relationships between job competencies and job outcomes. The statistical outcome of each relationship was discussed and recommendations were made.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The main objective of this study was to develop and test a store manager competency structural model that reflects the impact of PEP store manager competencies on their store outcomes. Even though most human resource practitioners are familiar with basic competency modelling, developing multi-dimensional models that causally link competencies with job outcomes is not common practice. Moreover, empirical testing of such models is an unusual phenomenon. In Chapter 1 it was explained that such models would assist in justifying the usage of certain competencies for human resource functions. Secondly, it would serve as a diagnostic tool for analysing overall unit performance and targeting performance improvement interventions more effectively and efficiently. Specific objectives for the study included:

- To explicate the competencies and outcome variables that constitutes store manager success.
- To develop a theoretical structural model that explicates the nature of the causal relationships between store manager job behaviours and store outcomes.
- To develop a performance rating questionnaires measuring store manager job behaviours/competencies, as well as some of the store outcomes not currently routinely assessed by PEP.
- To empirically test the proposed structural model by first testing the separate measurement models and thereafter the structural model.

Chapter 2 addressed the first two objectives. The various methods and resources used to gather information about the position of PEP store manager were discussed. Based on relevant literature, job analysis results and advice from subject matter experts, a comprehensive competency structural model was developed. According to the theoretical model, Sales Performance is a function of Customer Satisfaction and Marketing Effectiveness. Customer Satisfaction in turn is theorised to be influenced

by Marketing Effectiveness, Staff Capacity and by the competency, Sales Focus. Marketing Effectiveness is believed to be affected by Staff Capacity, and by the competencies, Planning & Organising, Controlling and Sales Focus. The theoretical model also supposes that both Marketing Effectiveness and Financial/Administrative Efficiency influence Stock Loss Control. Financial/Administrative Efficiency is considered to be a function of Staff Capacity and the competencies, Planning & Organising and Controlling. Staff Capacity is theorised to be influenced by Staff Satisfaction and by the competencies, Supervising & Directing, Motivating and Coaching. Finally, Staff Satisfaction is believed to be affected by Stock Loss Control, Marketing Effectiveness, Sales Performance and by the competency, Motivating.

Measurements consisted of ratings from area managers, staff assistants and current store performance ratings routinely used by PEP. The third objective was achieved by developing two questionnaires for assessing store manager behaviours and staff capacity respectively, as well as developing a questionnaire to be completed by sales assistants for measuring Staff Satisfaction. Although a sample of at least 200 Store Managers would have been ideal, PEP could only provide 122 store managers due to practical constraints. From the probability sample of 122 selected store managers, 93 of the cases contained all relevant information, and the remaining 27 store managers were deleted. Chapter 3 focussed on the development of the questionnaires and other aspects relating to the research methodology followed.

Chapter 4 began with examining the scale reliability and uni-dimensionality of the sub-scales developed. Except for one subscale with an alpha coefficient of 0,89, all other alpha coefficient values were above 0,9. Only two sub-scales, Sales Focus and Staff Satisfaction, extracted more than one factor based on the traditional eigenvalues greater than unity decision rule. Since the two Staff Satisfaction items loading on a second extracted factor could not be theoretically justified and the items appeared relatively inconsistent with the other items in terms of the scale reliability statistics, they were deleted. The respective item loadings on the two Sales Focus factors extracted were consistent with the theoretical distinction between Indirect Customer Service items and Direct Customer Service items. Since adequate item loadings were nonetheless produced when restricting the number of factors to one, the sub-scale could be retained as a single scale. Assumptions of uni- and

multivariate normality and other descriptive statistics were investigated with PRELIS and SPSS. Continuous variables were normalised due to evidence of skewness and kurtosis, but multivariate normality could not be attained for the competency indicators. In addition, signs of singularity and multicollinearity were present, especially between competency sub-scales.

The structural model could not be assessed with LISREL as a result of estimation problems with the Y-measurement model (Store outcomes measures). The problems may have been caused by the effective sample being too small relative to the size required for testing a complex model with categorical data. It is also a possibility that the theoretical store outcome model may have been a poor reflection of the actual underlying performance relationships between store outcomes. The X-measurement model (Job competency measures) showed good fit, regardless of indications of multicollinearity and the possibility of halo rating error. As an alternative for SEM, the relationships between competencies and job outcomes were analysed with standard multivariate regression.

Chapter 5 provides a summary of the results and discusses some of the implications it holds for PEP as an organisation. Limitations of the study and the need for further research are also addressed.

5.2 Summary of results

Even though the validity of the Customer Satisfaction indicator should be regarded with some scepticism in as far as it does not directly represent the view of customers, it nonetheless showed a statistically significant relationship with Sales Performance. Marketing Effectiveness, on the other hand, did not influence Sales Performance significantly ($p > 0,05$). Marketing Effectiveness did however correlate significantly ($r = 0,239$; $p = 0,011$) with the one Sales Performance indicator, namely Sales Growth. The absence of a relationship between Marketing Effectiveness and the Sales Performance indicator currently being used to evaluate the performance of store managers, Sales Budget, should raise much concern.

The theoretical view of Customer Satisfaction as a mediator of the effect of Marketing Effectiveness on Sales Performance could be supported by the statistically significant correlation of 0,276 ($p=0,004$) between Customer Satisfaction and Marketing Effectiveness taken in conjunction with the statistically significant correlation (0,273; $p<0,05$) between Customer Satisfaction and Sales Performance. The former relationship can however be questioned due to the singularity between the variables (i.e. Customer Satisfaction being a sub-measure of Marketing Effectiveness). The insignificant effect of Staff Capacity and Sales Focus on Customer Satisfaction may be due to the Customer Satisfaction indicator, Customer Service not representing the construct adequately.

The results did not support the belief that overall Financial Administrative Efficiency influences Stock Loss Control. The only Fin/Admin Efficiency indicator correlating significantly with Stock Loss Control was Markdown Compliance ($r=0,295$; $p=0,002$). The effect of the Financial Administrative Efficiency indicators, Cost Control and Admin Compliance were insignificant. Marketing Effectiveness, appeared more successful in preventing stock loss than generating sales as the relationship between Marketing Effectiveness and Stock Loss Control were 0,358 ($p=0$).

The results confirmed that Marketing Effectiveness is a function of Staff Capacity, and of the competencies, Planning & Organising, Controlling and Sales Focus. The competencies did however not add unique variance to the variance accounted for by Staff Capacity. It could be suggested that Staff Capacity mediates the effect of these competencies on Marketing Effectiveness. Staff Capacity is in addition to these competencies also significantly influenced by Staff Satisfaction, which confirms the hypothesis that satisfied assistants is more likely to be positive towards organisational objectives.

The statistical significant relationship between the competency, Motivating, and the outcome Staff Satisfaction supports the theory that by trying to understanding the needs of staff, showing interest and aiming to resolve interpersonal conflict fairly, giving recognition for performance, etc. managers will be more likely to influence the satisfaction levels of their employees. In addition, the significant influence of Sales Performance and Marketing Effectiveness on Staff Satisfaction provides support for

the hypothesis that rewarding performance increases work satisfaction. The former two variables do however not contribute significantly in a regression model already containing Motivating. The insignificance effect of Stock Loss Control on Staff Satisfaction, as well as the relative lower effect of Sales Performance compared to Marketing Effectiveness, suggests that the performance satisfaction relationship is valid to the extent that assistants perceive they have behavioural control over these objectives. It can be suggested that since sales assistants are primarily appraised in terms of Marketing Effectiveness, a performance indicator over which they perceive to have control, its influence is the strongest.

Examining the total effect of the competencies on the bottom-line store outcomes, Sales Performance and Stock Loss Control, provides additional insight. To prevent inflated coefficients due to suppressor variables, Motivating was included post hoc as the only predictor of Sales Performance. The total variance in Sales Performance accounted for by Motivating is 7,4%, which is R 532 000 000 of the PEP annual turnover of approximately 7 billion rand. When considering the amount of external factors, as well as the Store Manager's lack of control over many business decisions, e.g. the purchasing process, store layout, procedures etc, the proportion of 7,4% is noteworthy. The more task-related competencies, Planning & Organising, Controlling and Supervise & Directing, all demonstrated significant non-zero correlations with Stock Loss Control, but did not explain unique variance.

5.3 Implications for PEP

The insignificant relationship between the Marketing Effectiveness and Sales Performance indicator, Sales Budget are disturbing when taking into account to amount of time spend by area managers monitoring Marketing Standards. The significant effect of Marketing Effectiveness on Stock Control and the insignificant effect on Sales Performance, suggest that the area manager's predominant concern with marketing standard checklists is a strong controlling mechanism, but not necessarily a stimulant of sales.

Methods used for stimulating sales could be reconsidered. One focal point emphasised by the study is the important role of Customer Satisfaction. Customer

Satisfaction should, in addition to general focus groups, be measured per store in order to examine the determinants of Customer Satisfaction more accurately. Such measurements must not only concentrate on customer service, but on all relevant customer satisfaction aspects. Store manager performance bonuses should ideally be linked to these customer satisfaction measures. In contrast to Sales Performance, store managers will have more control over the outcome, increasing perceptions of fairness and improving motivation.

The evidence suggests that the achievement of store outcomes is mediated primarily through Staff Capacity and its main determinants are store manager competencies and Staff Satisfaction. Staff Capacity, defined as the extent to which the Staff is motivated and understands what is expected of them, influences general store performance. More training should be provided to store managers, training them to become more competent in managing tasks and people. In addition to competence in planning and controlling, store managers should be developed and rewarded for displaying people-orientated behaviours such as understanding the need of staff, creating good team spirit, involving staff in decision-making, handling conflict in a fair manner and building staff's self-esteem.

The strong influence of Staff Satisfaction on Staff Capacity also suggests that management should give more attention to aspects underlying Staff Satisfaction. Again, the competency Motivating play an important part by increasing the extent to which staff are satisfied with their supervision and work context. Also, the current Marketing Effectiveness indicator, Department Focus List, seems to be effective in this endeavour. It is important however that Sales Assistants believe they have behavioural control over the criteria on which they are evaluated.

5.4 Limitations and recommendations for further research

Insufficient training was given to area managers in terms of how to rate the store managers since signs of halo error and central tendency were clearly present. Future studies should not only consider proper training, but also 360 degrees ratings.

Future studies should also aim to increase the sample and revisiting the store outcome indicators. It may prove valuable to use the raw job outcome data from variables such as Stock Loss, Administrative Compliance and Cost Control instead of the transformed scores. The raw scores could then be treated as continuous data, which may prevent estimation errors and reduce the need for exceptionally large samples. In addition the possibility should be explored to measure all the latent outcome variables via multi-rater assessments in a manner analogous to the Performance Index developed by Spangenberg and Theron (2004).

Following the refinement of measures and addressing estimation errors, the model needs to be refitted on an independent sample. Hopefully, it would then be possible to fit the structural model, thereby gaining better insight into the indirect effects between variables. The high correlations between competencies, further suggest that it may be necessary to investigate possible higher order factors underlying the primary competencies.

Finally, the person-centred attributes (e.g. personality factors, cognitive abilities etc.) underlying competencies should be investigated. The store manager competency structural model should be expanded by mapping the pertinent store manager latent competency potential variables on the store manager competencies to propose a fully fledged store manager competency model. Should empirical proof be obtained for such an elaborated competency model it would assist area managers and other decision-makers to influence job competencies through more effective recruitment and selection, thereby contributing to the success of stores. Such a model would, moreover, significantly contribute to orchestrate and align various human resource management interventions into a coherent whole aimed at achieving managerial excellence on both the behavioural and store outcome level.

5.5 Conclusion

A theoretical model was developed that reflects the multi-dimensional causal relationships operating between latent store manager competencies and latent store outcomes. Even though the structural model could not be formally assessed as a single explanatory unit due to estimation errors with the job outcomes measurement

model, the sample data from the store manager competency questionnaire were consistent with the conceptual store manager competencies. All available indications indicated that the store manager competency questionnaire would serve as a reliable and valid measurement instrument for future research investigating the store manager performance domain, as well as for validating person-centred attributes against. Evidence on the fit of the proposed structural model hypothesising specific structural relations between these store manager competencies and the store outcomes they are meant to affect would, however, enhance the credibility of this claim.

Although numerous improvements can be made in terms of statistical analyses, the model proved tremendously helpful in understanding the manner in which store managers influence the success of stores. Traditionally, the performance of PEP store managers was largely managed through controlling mechanisms, for example marketing and administrative compliance checklists. Even though these methods have a role, shifting focus towards developing and rewarding certain behavioural aspects, especially competence in motivating staff, may be a much required stimulant of sales. This finding is supported by a study by Gilmore and Carson (1996) that advocates a movement away from *controlling* service delivery in the direction of developing managerial competencies which are instrumental to the quality of decision-making in service management. Finally, measures should be developed that reflect Customer Satisfaction per store, and which can be used for appraising store managers and investigating the competencies contributing to satisfied customers.

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APPENDIX A
BEHAVIOURAL PERFORMANCE QUESTIONNAIRE

BEHAVIOURAL PERFORMANCE RATING

Store Manager Position

TO BE COMPLETED BY AREA MANAGER

Please read the instructions!

Purpose:

- This questionnaire is part of a research initiative that aims to improve Recruitment and Selection, Performance Management and Training and Development for Store Managers.
- It is therefore very important that you read the instructions carefully and complete the questionnaire honestly.
- The ratings will not be displayed to Store Managers. It will also not influence other Store Manager performance indicators, bonuses, promotions etc.

What you have to do:

You need to complete a questionnaire like this for each of the Store Managers indicated on the attached cover letter.

It will take approximately 20 minutes to complete each questionnaire.

Section 1 (Rating of Store Manager):

- The first section contains Store Manager behaviours which Store Managers and other field management have identified as important for reaching store targets.
- You need to rate the specific Store Manager's performance over the past 6 months.
- There are 45 statements to be rated.

Section 2 (Rating of Sales Assistants):

- In the second section you must provide a general rating on the group of sales assistants at the specific store indicated.
- There are 11 statements to be rated.

Identification:

Please complete the following particulars:

Name of Area Manager (Rater)		Area Manager Employment no. (Rater)			
Area responsible for		Number of months responsible for current area	Less than 6 months	More than 6 months	More than 12 months
Store Manager rated (Ratee)		Employment no. of Store Mngr			
Name of Store(s) which Store Mngr managed for past 10 months		Today's Date			

Instructions (Section 1):

The first section of the questionnaire contains 3 main categories of performance, namely: **Management of Work Activities, Management of Staff, and Commercial Orientation**. These categories are subdivided into specific performance areas.

Scale:

- Each performance area consists of statements which must be rated on a 5-point scale.

5 = Well above standard

2 = Below required standard

4 = Above standard

1 = Well below standard

3 = Satisfactory

Cannot rate= Rater has no idea whether person displays behaviour

Example:

- "A" (**Completing questionnaires**) is an example of a performance area and "A1" (**Complete questionnaire accurately and honestly**) is an example of a statement. On the top of each page you will see the rating scale. Behavioural descriptions (for example, **Sometimes accurate and honest when filling in questionnaire [Option 3]**) are provided beneath the scale to help you make a rating-decision. Should you decide for example that 3 (Satisfactory) is an accurate reflection of the Store Manager's typical behaviour, then cross the corresponding box as illustrated below:

[Example Question]

	Definitions	Well above standard 5	Above required standard 4	Satisfactory 3	Below required standard 2	Well below standard 1	Cannot rate
A	Completing questionnaires						
A1	Complete questionnaire accurately and honestly, e.g. read the instructions, give objective ratings	At all times accurate and honest when filling in questionnaire		Sometimes accurate and honest when filling in questionnaire		Don't take accuracy and honesty serious when filling in questionnaire	
		5	4	3 X	2	1	

Important!

- Read the statement, for example, "Complete questionnaire accurately and honestly", think about the specific Store Manager's behaviour over the past 6 months and decide upon an appropriate rating. Try not to focus on one of two incidences, but rather focus on his/her behaviour in general.
- Don't focus only on the examples provided with each statement. That is only to help you understand the behaviours.
- Only use the "Cannot rate" column when you have no idea what so ever to rate.
- Consider each performance area according to its own merits.
- Be objective – don't let yourself be influenced by positive or negative feelings about the person.
- Please be honest, even it means giving poor ratings.

	Definitions	Well above standard 5	Above required standard 4	Satisfactory 3	Below required standard 2	Well below standard 1	Cannot rate
	--- MANAGEMENT OF WORK ACTIVITIES ---						
A	PLANNING & ORGANISING: Establishing a course of action for self and staff to accomplish specific goals						
A1	<u>Deciding on objectives</u> , that is what must be achieved, e.g. certain turnover, boxes to be cleared, completing preparation for winter ranges.	At all times deciding and focussed upon what must be achieved 5	4	Sometimes deciding and focussed upon what must be achieved 3	2	Seldom deciding and focussed upon what must be achieved 1	
A2	<u>Prioritising activities</u> , i.e. deciding which activities are most important in terms of long or term objectives e.g. packing out boxes versus helping customers versus doing admin	At all times decides which activities are most important before taking action 5	4	Sometimes prioritises before taking action 3	2	Takes action without prioritising activities first 1	
A3	<u>Scheduling activities</u> , that is drawing up a logical plan to prepare for action, e.g. stock take preparation, promotional activities, staff needed	Proactively schedules activities to meet monthly/weekly/daily objectives 5	4	Sometimes schedules activities to meet monthly/weekly/daily objectives 3	2	Always never schedules and plans activities, reacting only when situation becomes problematic 1	
A4	<u>Allocation of resources</u> e.g. deciding how to divide work amongst assistants or how to distribute money between expenditures	Efficient allocation of resources to ensure most value from limited resources 5	4	Satisfactory allocation of resources in order to ensure moderate value from limited resources 3	2	Inefficient allocation of resources between activities; Full capacity not being utilised 1	
A5	<u>Co-ordination</u> of activities, that is bringing different store functions together to ensure that store activities run smoothly	Co-ordinates store activities efficiently 5	4	Reasonably efficient at co-ordinating store activities 3	2	Related store activities are treated independently. Full capacity not being utilised 1	
A6	<u>Foresee problems</u> , that is noticing unexpected circumstances in advance e.g. shortage of staff for upcoming stocktaking	Effective at foreseeing problems 5	4	Reasonably effective at foreseeing problems 3	2	Seldom foresees problems 1	
A7	<u>Revising or adapting plans</u> to account for changing circumstances e.g. unexpected boxes received, sick staff	Effective at revising or adapting plans to account for changing circumstances 5	4	Reasonably effective at revising or adapting plans to account for changing circumstances 3	2	Seldom revises or adapts plans to account for changing circumstances 1	

	Definitions	Well above standard 5	Above required standard 4	Satisfactory 3	Below required standard 2	Well below standard 1	Cannot rate
	--- MANAGEMENT OF WORK ACTIVITIES ---						
B	CONTROLLING: Checking and monitoring information and store activities to ensure performance against objectives						
B1	<u>Determining realistic targets</u> for activities to be completed e.g. time when boxes should be unpacked, when to start preparing for stock take	At all times determining realistic targets for activities to be completed 5		Sometimes, determining realistic targets for activities to be completed 3		Very seldom determining targets for activities to be completed 1	
B2	<u>Setting-up controlling systems to monitor performance</u> against objectives e.g. arranging feedback sessions, ensuring good record keeping, providing targets	Effectively at setting up controlling systems to monitor performance against objectives 5		Reasonably effective at setting up controlling systems to monitor performance against objectives 3		Disregard setting up controlling systems to monitor performance against objectives 1	
B3	<u>Monitors performance</u> against objectives, that is following up on progress, e.g. how much sales needed to meet target?, how much below/above budget?, are tasks completed within time-frame?	Effective at monitoring own and staff progress in achieving monthly / weekly / daily objectives 5		Reasonably effective at monitoring own and staff progress in achieving monthly / weekly / daily objectives 3		Ineffective at monitoring performance. Realises not soon enough that objectives are not being meet. 1	
B4	<u>Checking work outcomes</u> of others, that is seeing if work is done according to standard, e.g. depart layout according to Pep Grow, packing slips captured correctly; followed correct cash-up procedure, polite to customers	Effective at checking work outcomes of staff, seeing that work is done according to standard 5		Reasonably effective at checking work outcomes of staff, seeing that work is done according to standard 3		Seldom checks the work outcomes of staff. Realises mistakes not soon enough to prevent problems. 1	
B5	<u>Determining causes of not achieving</u> objectives e.g. uneven allocation of work amongst staff, staff incompetence, external reasons	Effective at determining the reasons of why objectives are not being meet 5		Reasonably effective at determining the reasons of why objectives are not being meet 3		Very seldom determines the reasons of why objectives are not being meet 1	
B6	<u>Taking corrective action</u> , that is sorting out the problem, e.g. ordering more stock, reporting to Area Manager, correcting admin error.	At all times takes corrective action when objectives are not being meet 5		Only when required, takes corrective action when objectives are not being meet 3		Very seldom takes corrective action when objectives are not being meet 1	
B7	<u>Establishing ways of preventing problems from reoccurring</u> , that is ensuring that mistakes are not repeated, e.g. better security, monitoring admin supervisor more closely, disciplinary steps	Effective at implementing preventative measures, ensuring that mistakes are not repeated 5		Reasonably effective at implementing preventative measures, ensuring that mistakes are not repeated 3		Very seldom implements preventative measures 1	

	Definitions	Well above standard 5	Above required standard 4	Satisfactory 3	Below required standard 2	Well below standard 1	Cannot rate
	--- MANAGEMENT OF STAFF ---						
C	SUPERVISING AND DIRECTING: Provides staff with clear sense of direction by giving verbal instructions, establishing standards of behaviour and delegating tasks						
C1	Maintaining a physical presence, that is observing what activities the staff is busy with at all times	At all times maintains a physical presence to check work outcomes		Sometimes maintains a physical presence to check work outcomes		Very seldom maintains a physical presence to check work outcomes; spends most of time in office etc.	
		5	4	3	2	1	
C2	Establishing standards of performance, that is asking that tasks are done in a certain way, e.g. telling staff how a neat department should look like, explaining company procedures for cash-up	At all times explains the expected standards of performance to staff		Sometimes explains the expected standards of performance to staff		Seldom explains the expected standards of performance to staff	
		5	4	3	2	1	
C3	Make staff accountable, that is telling each staff member what their specific responsibility are and when it must be finished	At all times makes staff accountable for specific tasks		Sometimes makes staff accountable for specific tasks		Seldom makes staff accountable for specific tasks	
		5	4	3	2	1	
C4	Communicating with sense of direction, that is speaking in manner that staff understand instructions clearly	At all times communicates instructions to staff in clear and specific manner		Sometimes communicates instructions to staff in clear and specific manner		Communication of instructions to staff is unclear and often leads to confusion	
		5	4	3	2	1	
C5	Telling staff to repeat or correct work that are not done satisfactory, e.g. gondola layout not as per PEP grow	At all times tells staff when work are not done satisfactory and ensures that corrected		Sometimes tells staff when work are not done satisfactory and ensures that corrected		Very seldom tells staff when work are not done satisfactory	
		5	4	3	2	1	
C6	Providing logical explanations when giving tasks or instructing to repeat tasks e.g. "you have to repeat because Pep Grow says"	At all times provides information to back decisions		Sometimes provides information to back decisions		Conveys decisions without providing information to back it	
		5	4	3	2	1	
C7	Making quick decisions under time pressure (deciding a course of action on own initiative or alongside with others), that is giving direction in unexpected situation e.g. confronting customer, theft, shortage of staff.	Effective at making quick decisions under time pressure		Reasonably effective at making quick decisions under time pressure		Avoid making quick decisions under pressure	
		5	4	3	2	1	

	Definitions	Well above standard 5	Above required standard 4	Satisfactory 3	Below required standard 2	Well below standard 1	Cannot rate
	--- MANAGEMENT OF STAFF ---						
D	MOTIVATING: Behaviour through which the Store Manager inspires staff and gains their commitment for following objectives						
D1	<u>Understanding the needs of staff</u> , e.g. personal problems, how they want to be spoken to, remembering birthdays etc.	Shows genuine interest in staff and try to understand their needs		Sometimes shows interest in staff and try to understand their needs		Shows no interest in staff and don't try to understand their needs	
		5	4	3	2	1	
D2	<u>Creating good team spirit</u> e.g. through emphasising team work during morning talks	At all times strives to create a good team spirit between staff members		Aims to create a good team spirit between staff members only at times		Displays little to no effort in creating a good team spirit between staff members	
		5	4	3	2	1	
D3	<u>Emphasising job objectives</u> e.g. getting excellent department ratings, achieving daily targets etc.	At all times emphasises the importance and benefits of reaching job objectives		Sometimes emphasises the importance and benefits of reaching job objectives		Seldom shares with staff the importance and benefits of reaching job objectives	
		5	4	3	2	1	
D4	<u>Involve staff in decision-making</u> e.g. asking their opinion concerning who should do certain tasks, why problems occur	Effectively involves staff in decision-making		Reasonably effective at involving staff in decision-making		Almost never involves staff in decision-making	
		5	4	3	2	1	
D5	<u>Encouraging a faster rate of work</u>	At all times encouraging a faster rate of work		Sometimes encouraging a faster rate of work		Seldom encourages a faster rate of work	
		5	4	3	2	1	
D6	<u>Giving recognition</u> , e.g. congratulating performance during morning talk	At all times giving recognition for good work		Sometimes gives recognition for good work		Seldom gives recognition for good work	
		5	4	3	2	1	
D7	<u>Handles conflict in fair manner</u> , e.g. don't take sides, consistent, calm, don't avoid, firm	At all times handles conflict / grievance / disciplinary problems in firm and fair manner		Sometimes handles conflict / grievance / disciplinary problems in firm and fair manner		Avoid conflict / grievance / disciplinary problems or deal with it in an unfair and inconsistent manner	
		5	4	3	2	1	

	Definitions	Well above standard 5	Above required standard 4	Satisfactory 3	Below required standard 2	Well below standard 1	Cannot rate
	--- MANAGEMENT OF STAFF ---						
E	COACHING: Providing timely guidance and feedback to develop staff; strengthening specific knowledge and skills areas needed to accomplish a task or solve problems						
E1	<u>Demonstrating tasks</u> , that is showing staff how to do it, e.g. how to colour code, how to use F&F, capture packing slips	Effectively demonstrates and shows staff to do certain tasks 5	4	Reasonably effective at demonstrating and showing staff to do certain tasks 3	2	Seldom demonstrates and shows staff to do certain tasks 1	
E2	<u>Assessing staff progress</u> , that is noticing where staff members are performing well and where improvement may be necessary	At all times assesses the progress of staff members' performance 5	4	Sometimes assesses the progress of staff members' performance 3	2	Seldom assesses the progress of staff members' performance 1	
E3	<u>Providing feedback</u> , that is informally or formally telling staff members in which areas they can improve and where they are doing a good job	At all times providing feedback to staff members about job performance and possible developmental areas 5	4	Sometimes providing feedback to staff members about job performance and possible developmental areas 3	2	Avoids providing feedback to staff members about job performance and possible developmental areas 1	
E4	<u>Identifying barriers to staff performance</u> e.g. training needs, misconduct, motivational problems	Effectively identifies barriers of performance and follows problem-solving approach 5	4	Reasonably effective at identifying barriers of performance and following a problem-solving approach 3	2	Seldom identifies barriers of performance and follows a blaming approach to problems 1	
E5	<u>Approachable for guidance</u> in terms of how to do certain tasks or to overcome problems	At all times available and approachable for guidance and assistants 5	4	At times available and approachable for guidance and assistants 3	2	Seldom available and approachable for guidance and assistants 1	
E6	<u>Building staff's self-esteem</u> , that is believing in them, recognising their ability to do things independently	Effectively building staff's self-esteem and helping them recognising their independence 5	4	Reasonably effective at building staff's self-esteem and helping them recognising their independence 3	2	Shows little to no interest in staff self-esteem and promote dependency 1	
E7	<u>Showing patience</u> with slow learning staff members	Effective at showing patience with slow learning staff members 5	4	Reasonably effective at showing patience with slow learning staff members 3	2	Shows frustration and agitation with slow learning staff members 1	

	Definitions	Well above standard 5	Above required standard 4	Satisfactory 3	Below required standard 2	Well below standard 1	Cannot rate
	--- COMMERICAL ORIENTATION---						
F	SALES FOCUS: Sales Focus or “Retail Judgement” refers to sales/marketing “know-how” and an understanding of how such activities impact sales.						
F1	<u>Direct contact with customers</u>	Relates to customers in a comfortable and enthusiastic manner at all times		Relates to customers in a comfortable and enthusiastic manner at times		Not at-ease when interacting with customers and appears unexcited	
		5	4	3	2	1	
F2	<u>Building store image</u> , e.g. clean and neat store, influencing behaviour of sales assistants towards customers, setting example of good service	At all times promoting and working towards a positive store image.		At times promoting and working towards a positive store image.		Most of the time unconcerned about the image of the store.	
		5	4	3	2	1	
F3	<u>Concentrating on sales generating/driving activities</u> , e.g. having store fully stocked, rotating stock to increase sales, ensuring most impact from promotions	At all times focussed on sales generating activities, while balancing it with other activities		At times focussed on sales generating activities, while balancing it with other activities		Focus is rather on compliance than on generating sales. Unequal balance between sales generating activities and other store requirements	
		5	4	3	2	1	
F4	<u>Initiating action</u> , that is taking action without being asked, e.g. arranging own promotions, following up on customer queries, managing stock surplus, making back-up plans for stock shortages, etc	Initiating action at all times without being asked		Initiating action at times without being asked		Most of the time passive towards sales/marketing related problems and opportunities.	
		5	4	3	2	1	
F5	<u>Evaluating sales/marketing success</u> , that is finding out what (e.g. products, displays) is working or not and why, by e.g. identifying the good/bad sellers, getting input from staff or customers etc	Evaluating sales/marketing success at all times		Evaluating sales/marketing success at times		Shows little interest in finding out what is working or not and why	
		5	4	3	2	1	
F6	<u>Positioning stock to sell</u> , e.g. Rotating or promoting stock at right times, getting most impact from displays or promotions, fully stocked	At all times positioning stock to sell		Sometimes positioning stock to sell		Position stock without any thought towards increasing sales	
		5	4	3	2	1	
F7	<u>Informed about the area in terms of how it may impact sales</u> , e.g. the customer profile, cultural issues, prominent community figures, competition in the market	Highly informed about the area in terms of how it may impact sales		Reasonable informed about the area in terms of how it may impact sales		Not at all informed about the area in terms of how it may impact sales	
		5	4	3	2	1	
F8	<u>Investigating complains</u> , e.g. customer complains about staff member, complains reaching Central Office etc.	At all times investigates complains, takes action and follows up with customer		Sometimes investigates complains, takes action and follows up with customer		Don't take complaints serious and seldom investigates it, takes action or follows up with customer	
		5	4	3	2	1	
F9	<u>Building loyal customer relationships</u> , e.g. remembering customers, recognising their loyalty, greeting them, being respectful	At all times striving to build loyal relationships with customers		Sometimes trying to build loyal relationships with customers		Gives little effort to building loyal relationships with customers	
		5	4	3	2	1	
F10	<u>Handling rude customers</u>	At all times handling rude or unreasonable customers in calm and appropriate manner		Sometimes handling rude or unreasonable customers in calm and appropriate manner		Avoids rude or unreasonable customers or becomes confrontational towards them	
		5	4	3	2	1	

Instructions (Section 2):

Section 2 of the questionnaire focuses on the performance capacity of the **group of sales assistants at the specific store indicated.**

Important!

- Read the statement, think about the specific store's sales assistants in general over the past 6 months and decide upon an appropriate rating.
- Your focus should be on the whole group of sales assistants in the specific store, and not on one or two individuals only.
- Don't focus only on the examples provided with each statement. That is only to help you understand the statement.
- Only use the "Cannot rate" column when you have no idea what so ever to rate.
- Consider each question according to its own merits.
- Be objective – don't let yourself be influenced by positive or negative feelings.
- Please be honest, even it means giving poor ratings.

	Definitions	Well above standard 5	Above required standard 4	Satisfactory 3	Below required standard 2	Well below standard 1	Cannot rate
SP	STAFF CAPACITY : It refers to the extent that staff members in the store are trained and directed to know what is required of them, as well as their level of commitment and passion towards store objectives						
SP1	<u>Understanding of store objectives</u> , e.g. making target, delighting customers etc.	Staff members in the store have a high level of understanding of what the objectives of the store are		Staff members in the store have a reasonable understanding of what the objectives of the store are		Staff members in the store have a very limited understanding of what the objectives of the store are	
		5	4	3	2	1	
SP2	<u>Informed about individual responsibilities</u> , that is <u>what</u> exactly must be done	Staff members in the store are highly informed about what exactly their tasks are		Staff members in the store are reasonably informed about what exactly their tasks are		Staff members in the store are confused and unsure about what exactly their tasks are.	
		5	4	3	2	1	
SP3	<u>Knowing exactly how to perform specific tasks</u> , e.g. how does one unpack boxes?	Staff members in the store have a high level of understanding of how to perform specific tasks		Staff members in the store have some understanding of how to perform specific tasks		Staff members in the store are unsure of exactly how to do specific tasks	
		5	4	3	2	1	
SP4	<u>Instructed on standards/quality of performance</u> , e.g. how a Pep Grow compliant depart should look, the correct procedure for cash-up	Staff members in the store are thoroughly instructed on the standard at which their work must be performed		Staff members in the store are adequately instructed on the standard at which their work must be performed		Staff members in the store are unsure about the standard at which their work must be performed	
		5	4	3	2	1	
SP5	<u>Clarity on when specific tasks must be completed</u> , i.e. deadlines for specific tasks	Staff members in the store have a high level of clarity on when specific tasks must be completed		Staff members in the store have some clarity on when specific tasks must be completed		Staff members in the store are unclear on when specific tasks must be completed	
		5	4	3	2	1	
SP6	<u>Understanding of why being instructed to do certain work or repeat tasks</u> , that is the reason behind it, e.g. to delight customers, to meet target	Staff members in the store have a high level of understanding of why they do certain tasks		Staff members in the store have some understanding of why they do certain tasks		Staff members in the store are unsure about the reason or logic behind doing certain tasks	
		5	4	3	2	1	

	Definitions	Well above standard 5	Above required standard 4	Satisfactory 3	Below required standard 2	Well below standard 1	Cannot rate
SP7	<u>Awareness of own strengths and weaknesses</u> and knowing how to improve performance	Staff members in the store have a high level of awareness of their own strengths and weaknesses and how to improve it		Staff members in the store have some awareness of their own strengths and weaknesses and to a limited extent knows how to improve it		Staff members in the store are not informed about their own strengths and weaknesses and are unsure about how to improve	
		5	4	3	2	1	
SP8	Employee commitment to the store objectives	Staff members in the store are highly committed to the store and its objectives		Staff members in the store are reasonably committed to the store and its objectives		Staff members in the store are not at all committed to the store and neither concerned about its objectives	
		5	4	3	2	1	
SP9	Employee effort towards completing work activities timely and according to standard	Staff members in the store makes a large effort to complete work activities timely and according to standard		Staff members in the store makes some effort to complete work activities timely and according to standard		Staff members in the store are not concerned about completing work activities timely or doing it according to standard	
		5	4	3	2	1	
SP10	Employee energy and passion	Staff members in the store always conduct their work with energy and passion		Staff members in the store sometimes conduct their work with energy and passion		Staff members in the store almost never conduct their work with energy and passion	
		5	4	3	2	1	
SP11	Employee confidence to ask for help, report mistakes and problems	Staff members in the store feel highly encouraged to ask for help, report mistakes and problems		Staff members in the store feel reasonably encouraged to ask for help, report mistakes and problems		Staff members in the store are hesitant and feels scared to ask for help or report mistakes and problems	
		5	4	3	2	1	

APPENDIX B
STAFF PERCEPTION QUESTIONNAIRE

STAFF PERCEPTION QUESTIONNAIRE

To be completed by selected staff member

Please read the instructions!

Purpose:

- This questionnaire measures the satisfaction of store staff (sales assistants and supervisors).
- It is part of a research initiative that aims to improve Recruitment and Selection, Performance Management and Training and Development for Store Managers.
- It is therefore very important that you read the instructions carefully and complete the questionnaire honestly.
- The ratings will be kept confidential and not be displayed to Store Managers.

What you have to do:

- This questionnaire will be given to you by the Area Manager. After completion of the form, you must return it to the Area Manager.
- You should have worked for at least 6 months in this particular store to complete this form.
- You will be required to indicate how satisfied the staff members of your specific store have been with aspects of the store over the past 6 months.
- Please be honest!
- There are 11 statements and it will take approximately 5 minutes to complete the questionnaire.

Identification:

Please complete the following particulars:

Staff member's Name (Rater)			Staff member's Employment no. (Rater)			
Position (Rater) (Tick the box)	Sales Assistant	Supervisor: Admin / Store Room / Receiving	Number of months you are working at current store (Tick the box)	Less than 6 months	More than 6 months	More than 12 months
Name of Store			Name of Store Manager(s) for past 10 months			
Today's date						

Instructions:Scale:

- Each statement must be rated on a 5-point scale.

5 = Well above standard

2 = Below required standard

4 = Above standard

1 = Well below standard


3 = Satisfactory

Cannot rate= Rater has no idea whether person displays behaviour

Example:

- "A1" (**Satisfaction with the coffee in this store**) is an example of a statement. On the top of the page you will see the rating scale. Behavioural descriptions (for example, **Staff members are reasonable satisfied with the coffee in this store [3]**) are provided beneath the scale to help you make a rating-decision. Should you decide for example that 3 (Satisfactory) is an accurate reflection of how the store staff typically experience the coffee in the store, then cross the corresponding box as illustrated below:

[Example Question]

	Definitions	Well above standard 5	Above required standard 4	Satisfactory 3	Below required standard 2	Well below standard 1	Cannot rate
A	Satisfaction						
A1	Satisfaction with the coffee in the store	Staff members are highly satisfied with the coffee in this store		Staff members are reasonable satisfied with the coffee in this store		Staff members are not satisfied with the coffee in this store	
		5	4	3 	2	1	

Important!

- Read the statement, e.g. "Satisfaction with the coffee in the store", think about the experience of staff members at this particular store over the past 6 months and decide upon an appropriate rating.
- Only use the "Cannot rate" column when you have no idea what so ever to rate.
- There are no right or wrong answers. We are interested in your personal opinion/views.
- Please be honest, even it means giving low ratings.

	Definitions	Well above standard 5	Above required standard 4	Satisfactory 3	Below required standard 2	Well below standard 1	Cannot rate
A	SATISFACTION: It refers to how pleased the staff members are with a variety of aspects in the store						
A1	Satisfaction with tasks and work context	Staff members in the store show a high level of satisfaction with their work and work contexts 5	4	Staff members in the store are generally satisfied with their work and work context 3	2	Staff members in the store are not satisfied with their work and work context 1	
A2	Satisfaction with quality of Store Manager supervision and coaching	Staff members in the store show a high level of satisfaction with the quality of Store Manager supervision and coaching 5	4	Staff members in the store are normally satisfied with the quality of Store Manager supervision and coaching 3	2	Staff members in the store are not satisfied with the quality of Store Manager supervision and coaching 1	
A3	Satisfaction with salary and fringe benefits	Staff members in the store show a high level of satisfaction with salary and benefits 5	4	Staff members in the store are generally satisfied with salary and benefits 3	2	Staff members in the store are not satisfied with salary and benefits 1	
A4	Satisfaction with career development	Staff members in the store show a high level of satisfaction with career progress and development 5	4	Staff members in the store are generally satisfied with career progress and growth 3	2	Staff members in the store are not satisfied with career progress and growth 1	
A5	Employee empowerment	Staff members in the store feel highly empowered to accomplish tasks and perform effectively 5	4	Staff members in the store feel adequately empowered to accomplish tasks and perform satisfactory 3	2	Staff members in the store do not feel sufficient empowered to accomplish tasks and perform satisfactory 1	
A6	Respect for Store Manager	Staff members in the store show a high level of respect for the Store Manager 5	4	Staff members in the store normally show the expected respect for the Store Manager 3	2	Staff members in the store do not show the expected respect for the leader 1	
A7	Trust in the Store Manager	Staff members in the store show a high level of trust in the Store Manager 5	4	Staff members in the store normally show trust in the Store Manager 3	2	Staff members in the store do not show trust in the Store Manager 1	
A8	Satisfaction with the Store Manager	Staff members in the store are highly satisfied with the Store Manager 5	4	Staff members in the store normally are satisfied with the Store Manager 3	2	Staff members in the store are not satisfied with the Store Manager 1	
A9	Satisfaction with working atmosphere in the store	Staff members are highly satisfied with the working atmosphere in the store 5	4	Staff members are generally satisfied with the working atmosphere in the store 3	2	Staff members are not satisfied with the working atmosphere in the store 1	
A10	Satisfaction with harmony and teamwork in the store	Staff members are highly satisfied with the harmony and teamwork in the store 5	4	Staff members are generally satisfied with the harmony and teamwork in the store 3	2	Staff members are not satisfied with the harmony and teamwork in the store 1	
A11	Satisfaction with achievement of the store	Staff members are highly satisfied with the achievement of the store 5	4	Staff members are generally satisfied with the achievement of the store 3	2	Staff members are not satisfied with the achievement of the store 1	