

**Sources of work stress, psychological attachment and attitudes towards change:  
Constructing a psychological profile for change interventions**

by

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## DECLARATION

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## **ABSTRACT/SUMMARY**

### **SOURCES OF WORK STRESS, PSYCHOLOGICAL ATTACHMENT AND ATTITUDES TOWARDS CHANGE: CONSTRUCTING A PSYCHOLOGICAL PROFILE FOR CHANGE INTERVENTIONS**

**by**

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This research focused on constructing a psychological profile for change interventions by investigating both the interrelationships and overall relationships between work stress (as the independent variable), psychological attachment (job embeddedness and organisational commitment) (as the mediating variables) and attitudes towards change (as the dependent variable).

A non-experimental cross-sectional quantitative survey design approach using standardised valid and reliable measuring instruments (Sources of Job Stress Scale, Organisational Commitment Questionnaire, Job Embeddedness Questionnaire, Attitudes towards Change Questionnaire) was used on a non-probability purposive sample of employees from one of the largest, fast-moving consumer goods companies in South Africa (N = 350), ranging from administrative to executive level.

Bivariate correlations showed a statistically positive inter-relationship between sources of work stress, psychological attachment (job embeddedness and organisational commitment) and attitudes towards change. A canonical correlation analysis indicated a significant overall relationship between the sources of work stress, psychological attachment (job embeddedness and organisational commitment) and attitudes towards change dispositions. Mediation modelling revealed the mediating role of psychological attachment (organisational commitment and job embeddedness) in the sources of work stress and attitudes towards change relationship.

Moderated hierarchical regression analyses showed that age and gender significantly moderated the relationship between individuals' sources of work stress and their attitudes towards change dispositions. Tests for mean differences revealed that significant differences exist between age and sources of work stress, affective and continuance commitment, fit and sacrifice embeddedness. Differences exist between race groups' affective and continuance commitment. Job security is a concern across all employment levels in the organisation. Individuals at an executive, upper administrative and administrative level revealed significant differences in terms of their continuance commitment. Cognitive and behavioural attitudes towards change did not differ significantly across all employment levels.

At a theoretical level, this study developed an understanding of the cognitive, affective, conative and interpersonal behavioural dimensions of the hypothesised psychological profile to manage change. At an empirical level, it developed an empirically tested psychological profile for change interventions in terms of the various behavioural dimensions. At a practical level, organisational change practices in terms of the behavioural dimensions of the psychological profile were recommended.

## **KEY TERMS**

Work stress, psychological attachment, job embeddedness, organisational commitment, attitudes towards change, psychological profile, organisational change.

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## **CHAPTER 1: SCIENTIFIC OVERVIEW OF THE RESEARCH**

This research focuses on the development of a psychological profile for change interventions in the South African fast-moving consumer goods (FMCG) context. The constructs of relevance to the research are sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. This chapter provides the background to and motivation for the intended research, which will result in the formulation of the problem statement and the research questions. Subsequently, the aims of the research will be formulated and the paradigm perspectives, which guide the research, will be discussed. Further, the research design and research method, including the different steps that provide structure to the research process, will be formulated. The chapter concludes with the layout of the chapters.

### **1.1 BACKGROUND AND MOTIVATION FOR THE RESEARCH**

The context of this research is the wellbeing of employees in a characteristically highly stressful FMCG work environment compounded by the contemporary world of work which is increasingly changing. The need for organisational change in the FMCG environment became a necessity in response to globalisation, an ongoing need for innovation, the empowerment of consumers and changes in demand patterns in the market (Caldwell, 2011; Mason, 2008; Slabbert & De Villiers, 1998; Soltani, Lai, & Mahmoudi, 2007; Supply chain foresight, 2008). Because of this fast-paced, ever-changing FMCG work environment, the need for organisational change is often unpredictable (Burnes, 1996; Joo & Shim, 2010; Luecke, 2003; Stuart, 1996; Todnem, 2005; Visagie & Steyn, 2011). Organisational change tends to be reactive, discontinuous and ad hoc and is often triggered by a situation of organisational crisis (Burnes, 1996; Joo & Shim, 2010; Luecke, 2003; Stuart, 1996; Todnem, 2005; Visagie & Steyn, 2011). In consideration of these trends, few would dispute that the primary task for current managers in FMCG organisations is the successful implementation and management of organisational change (Ericsson, 2011; Glensor, 2010; Jaros, 2010; Siriram, 2011). However, while the requirement for organisational change is accepted as a necessity in order to succeed in the present highly competitive FMCG work environment, Balogun and Hailey (2004) reported a failure rate of approximately 70% of all change programmes initiated.

Other researchers have revealed that a minimum of almost half or two-thirds of organisations fail during organisational change implementation and management (Beer & Nohria, 2000; Comfort & Franklin, 2011; Erwin & Garman, 2010; Higgs & Rowland, 2002; Hirschhorn, 2002; Kotter, 2008; Lewis, 2011; Lombard & Zaaiman, 2004; Sirkin, Keenan, & Jackson, 2005). This high failure rate of change implementation and management could be attributed to a fundamental lack of the consideration of the human element when implementing and managing organisational change (Burnes, 1996; Bhagat, Segovis, & Nelson, 2012). Moreover, Guimaraes and Armstrong (1998) argue that most analyses that have been circulated in the area of change management are subjective and superficial. Doyle (2002) suggests that with only a few exceptions, existing practice and theory are mostly supported by unopposed assumptions about the nature of modern contemporary organisational change implementation and management. Erwin and Garman (2010) and Lewis (2011) support this observation when they state that change processes over the last few years have been subject to fundamental flaws (pertaining to change management at an individual level) which prevent the successful management of change.

Even though it is difficult to gain consensus on the best operating practices for organisational change implementation and management, there seems to be agreement on two aspects. Primarily, there is consensus that the change, being initiated by internal or external factors, comes in all shapes, forms and sizes and therefore affects most organisations across industries (Balogun & Hailey, 2004; Burnes, 1996; Carnall, 1990; Erwin & Garman, 2010; Kotter, 1996; Lewis, 2011; Rooney et al., 2010). In addition, it is agreed that the speed of change has never been greater than in the current FMCG work environment (Arnold & Randall, 2010; Balogun & Hailey, 2004; Burnes, 1996; Carnall, 1990; Ericsson, 2011; Kotter, 1996; Lombard & Zaaiman, 2004; Luecke, 2003; Moran & Brightman, 2001; Okumus & Hemmington, 1998; Paton & McCalman, 2000; Supply chain foresight, 2008). It is evident from the literature that while there is increasing development of material in the field of organisational change, little pragmatic evidence has been provided to support organisational change implementation and management in terms of understanding the psychological factors that influence employees' general well-being and adjustment to change. Thus, the purpose of this research was to construct a psychological profile for change interventions in the South African FMCG work environment.

More specifically, this research intended to critically investigate the interrelationships and overall relationships between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitude to change as significant human constructs that need to be understood in the context of organisational change in the South African FMCG work environment. Continuous organisational change in the FMCG work environment has been shown to be a valid source of work stress for the employee, as organisational change generates uncertainty and fear about the future direction of an organisation (Arnold & Randall, 2010; Vakola & Nikolaou, 2005). Job role and ambiguity, job tools and equipment, career advancement prospects, job security, job autonomy and relationships are also other sources of work stress that result from organisational change (Coetzee & De Villiers, 2010; De Bruin & Taylor, 2006). Consequently, at a minimum, organisations are likely to suffer from the diversion of employees' attention, where new processes and structures fail, thus leading to lower performance in the organisation (either temporarily or permanently) (Dahl, 2010; Elrod & Tippet, 2002; Visagie, 2010; Yoon & Kim, 2010). In severe cases of work stress, some employees' career paths result in them leaving the organisation or developing emotional problems. Hence the retention and well-being of employees become a challenge for the organisation. Several studies have revealed that in order to avoid work stress becoming an obstacle for the organisation, it must be an important construct to be considered by change managers when planning and implementing organisational change (Allen, Bryant, & Vardaman, 2010; Armenakis & Bedeian, 1999; Dewe, O'Driscoll, & Cooper, 2010; Griffin, Hogan, Lambert, Tucker-Gail, & Baker, 2010; Leong, Furnham, & Cooper, 1996; McHugh, 1997). However, while sources of work stress have been noted as a significant human element to be considered in the context of organisational change, human resource practitioners and industrial psychologists have been apprehensive about employees' psychological attachment (organisational commitment and job embeddedness) to the organisation.

Organisational commitment as a form of psychological attachment can be described in terms of employees' affective (emotional attachment to the organisation), continuance (the perceived cost of leaving) and normative commitment (the obligation to stay with the organisation) and the factors (job embeddedness) that keep people in their current employment situations (Ali, Rehman, Ali, Yousaf, & Zia, 2010; Allen & Meyer, 1990; Burton, Holtom, Sablinski, Mitchell, & Lee, 2010; Eisenberger et al., 2010; Feldman & Ng, 2007; Mitchell, Holtom, & Lee, 2001a; Ng, Feldman, & Lam, 2010; Stroth, 2010; Van Den Heuvel, Demerouti, Bakker, & Schaufeli, 2010; Zeinabadi, 2010).

Three factors relating to employees' psychological attachment to the organisation have been identified in job embeddedness. These include the fit (which is the extent to which an employee's job complements other areas of his or her life), links (which involve the extent of an individual's ties with other people and activities at work) and sacrifices (which relate to what employees would have to give up if they were to leave their current position) (Cho & Son, 2012; Feldman & Ng, 2007; Felps, Mitchell, Hekman, Lee, Holtom, & Harman, 2009; Gong, Chow, & Ahlstrom, 2011; Popper & Amit, 2009; Mitchell et al., 2001a; Ramesh & Gelfand, 2010; Reitz, Anderson, & Hill, 2010). Research has indicated that psychological attachment is critical when an organisation engages in organisational change, because committed and loyal employees provide many benefits to the organisation that is undergoing change. Benefits may include employees putting in extra effort, serving as positive representatives and going above and beyond the norm to assist the organisation in functioning effectively (Ali et al., 2010; Bennett & Durkin, 1999; Feldman & Ng, 2007; Kyei-Poku, 2006; Mitchell et al., 2001a). Interestingly, research by Cho and Son (2012), Dawley, Houghton, and Bucklew (2010) and Joo and Park (2010) reveals that the more sacrifices an employee makes, the higher job satisfaction and the less turnover intention he or she has. Furthermore, the greater the fit and the higher the links employees have, the less turnover intention they have. Thus, for the purposes of this research, psychological attachment will encapsulate organisational commitment and job embeddedness to provide more depth to the study. Other researchers have shown that attitudes towards change are also a fundamental human factor to consider when implementing and managing organisational change, as organisational change can be received with positive or negative attitudes (Foster, 2010; Kotter, 1996, Lau & Woodman, 1995; Martha, 2010; Nikolaou, Gouras, Vakola, & Bourantas, 2007; Piderit, 2000).

Piderit (2000) identifies employees' responses to organisational changes ranging from positive attitudes (this change is essential for the organisation to succeed) to negative attitudes (this change could ruin the company). Research has shown that positive attitudes to change were found to be critical in achieving organisational goals and achieving success in the organisational change implementation and management process (Choi, 2011; Eby, Adams, Russel, & Gaby, 2000; Kotter, 1996; Martha, 2010; Martin, 2005). Schweiger and Denisi (1991) and Oreg and Sverdlik (2011) suggest that uncertainty attached to organisational change creates negative attitudes to change, which can lead to some dysfunctional consequences such as high levels of work stress and low organisational commitment. In addition, when change programmes are announced, employees consider whether the planned changes will be of any benefit to them.

For example, Chreim (2006) found that individuals consider their own skills and competencies and make a judgement in terms of the likelihood of their success in new roles. In a survey by Oreg (2006) with 177 defence firm employees, the results indicated that employees were concerned with job security that was strongly related to emotional reactions, and if changes were to threaten their power and prestige, there is a chance that they would adopt negative attitudes towards the change.

### **1.1.1 Sources of work stress**

Work stress has been defined in many different ways. Cox (1978), Cummings and Cooper (1979) and Dewe et al. (2010) define work stress as a negatively perceived quality which, as a result of inadequate coping with sources of stress, has negative mental and physical health-related consequences. Rollinson (2005, p. 270) defines work stress as the conditions arising from the interaction between people and their jobs, which are characterised by changes within people that force them to deviate from their normal functioning. Organisational change in this context can be a significant source of work stress for the employee, because as roles change, relationships change, opportunities for career growth change, and many other dynamics are influenced as well. Research by Coetzee and De Villiers (2010) has made reference to researchers such as Cartwright and Cooper (2002), Coetzer and Rothmann (2007), De Bruyn and Taylor (2006), Labuschagne, Bosman, and Buitendach (2005), Martin (2005) and Rollinson (2005) who have cited common sources of work stress (role ambiguity, work relationships, tools and equipment, career advancement, job security, lack of job autonomy, work-home interface, workload, compensation and benefits, lack of leader/manager support and aspects of the job) that could impact on organisational activity and employees' sense of well-being in the workplace.

Other studies have revealed that organisational change is indeed a significant source of work stress (Griffin et al., 2010; McHugh, 1997; Vakola & Nikolaou, 2005). In fact, work stress during organisational change has been compared to an employee's response to a traumatic event such as death (Grant, 1996; Kubler-Ross, 1969). Perlman and Takacs (1990) have drawn a similarity between the stages of mourning an individual experiences when dealing with death and organisational change. Employees are often faced with fear and uncertainty during organisational change and may desire a degree of balance in their interactions with the work environment.

In addition, some employees may show prejudice to ambiguity. Since organisational change involves moving from the known towards the unknown, those who are relatively intolerant to ambiguity prefer to maintain the status quo (Bhagat et al., 2012; Gupta & Govindajaran, 1984; Hambrick & Finkelstein, 1987). When the status quo is challenged, employees may experience increased levels of work stress and may even adopt negative attitudes towards change (Visagie, 2010). Results from a study by Vakola and Nikolaou (2005) confirm a relationship between work stress and attitudes towards change. Almost all work stressors were related to negative attitudes towards change.

Work stress created by poor work relationships, work overload and unfair pay or benefits were found to be the causes of negative attitudes towards change, thus inhibiting change processes. Specific reference is made to the lack of a supportive work environment, which is found to be the strongest predictor of negative attitudes towards change. Vakola and Nikolaou (2005) indicate that unless employees perceive that the organisation develops supportive organisational mechanisms to change, such as manager commitment, rewards, training, and participation in planning and implementation, change will be a stressful experience, where stress caused by organisational change will result in the creation of negative attitudes toward change, and stress will therefore become an inhibitor of change.

### **1.1.2 Psychological attachment**

Employees' psychological attachment (organisational commitment and job embeddedness) to the organisation has gained attention from several researchers (Cho & Son, 2012; Feldman & Ng, 2007; Jiang, Liu, McKay, Lee, & Mitchell, 2012; Karatepe & Ngeche, 2012; Mitchell et al., 2001a; Van Dyk, Coetzee, & Takawira, 2013; Zhang, Fried, & Griffeth, 2012). Overcoming barriers to organisational change, promotes the need to ensure continued focus on the psychological attachment (organisational commitment and job embeddedness) of an employee as a potential mediator to sources of work stress and attitudes towards change. Organisational commitment has been linked to reducing incidents of turnover, whereas job embeddedness is a relatively new construct, where researchers have started to pay more attention to questions about why employees remain in their jobs and organisations even when other opportunities are presented (Adams, Webster, & Buyarski, 2010; Allen & Meyer, 1990; Feldman & Ng, 2007; Karatepe, 2012; Meyer, Mudambi, & Narula, 2011).

It would be fascinating to explore the reasons why employees remain in their jobs despite coping with continuous organisational change. Given this, the construct of job embeddedness provides a multi-faceted, rich approach to the exploration of psychological attachment (organisational commitment and job embeddedness) in the context of organisational change. Mitchell, Holtom, Lee, Sablinski, and Erez (2001b) developed the job embeddedness concept as a construct that merges organisational commitment with turnover models taking into consideration structural economic and external reasons employees leave an organisation. Additionally, the results from the study by Mitchell et al. (2001b) demonstrate that job embeddedness predicts the common outcomes of both intent to leave and voluntary turnover, and show significant incremental variance as well as job satisfaction, organisational commitment, job alternatives and job search.

Further, Ng and Feldman (2013) demonstrate that changes in perceptions of job embeddedness are correlated to changes in behaviours, which contribute to organisational effectiveness. This empirical finding is important because it may establish a tangible connection between job embeddedness and an employee's ability to deal with organisational change. Research has shown that high levels of job embeddedness can in fact serve as a buffer or mediator to shocks arising from organisational dissatisfaction in the workplace (Holtom & Inderrieden, 2006; Holtom, Mitchell, & Lee, 2006; Yao, Lee, Mitchell, Burton, & Sablinski, 2004). Thus, job embeddedness is a worthy construct for both the employee and the organisation (Johnson, Sachau, & Englert, 2010).

### **1.1.3 Attitudes towards change**

Attitudes towards change can be defined as an employee's positive or negative evaluative judgement of a change (Elias, 2009). According to Dunham, Grube, Gardener and Cummings (1989), attitudes towards change consist of the employee's cognitions about change, affective reactions to change and the behavioural tendency towards change. The affective component comprises the feelings a person has towards a person or object. The cognitive component consists of the way an employee thinks about the change. The behavioural tendency concerns the way an employee tends to behave towards change (Bohner & Dickel, 2011; Bouckennooghe, 2010; Bordia, Restubog, Jimmieson, & Irmer, 2011; Choi, 2011; Lau & Woodman, 1995; Oreg & Sverdlik, 2011; Rashid, Sambasivan, & Rahman, 2004).

Yousef (2000) and Chiang (2010) found that attitudes towards change are a critical determining factor of the success or failure of organisational change. This finding is consistent with findings by Cordery, Sevastos, Mueller, and Parker (1993), Iverson (1996) and Choi (2011). Lau and Woodman (1995) and Bordia et al. (2011) also reported a positive relationship between organisational commitment and attitudes towards change and turnover. A committed employee is more likely to have a positive attitude towards organisational change and will choose to remain with the organisation.

A less committed employee may resist organisational change and have a negative attitude towards the change, and even leave the organisation. Iverson (1996) and Wang and Shultz (2010) support this view and have indicated that organisational commitment is a better predictor of behavioural intentions, such that employees with high organisational commitment are more willing to put in extra effort for organisational change and are more likely to develop positive attitudes towards change. Vakola and Nikolaou (2005) also reported a positive correlation between organisational commitment and attitudes towards change, thus confirming that organisational commitment is one of the most critical determinants of attitudes towards change and successful organisational change implementation and management. It was also found that organisational commitment at times mediated the relationship between attitudes towards change and work stress. Joo and Shim (2010) support this view and indicate that organisational commitment as a mediator in the relationship between work stress and attitudes towards change enables the employee to deal with the outcomes of organisational change. However, according to Niehoff, Moorman, Blakely, and Fuller (2001), organisational commitment may in fact be corroded during times of organisational change which could result in negative attitudes towards change. Yousef (2000) showed that affective commitment has a direct and positive effect on both the behavioural and affective component of attitudes towards change, while it was found that affective commitment has no effect on the cognitive component of attitudes towards change. This may indicate that employees, who decide to remain with an organisation because they want to, are likely to be satisfied with change and less stressed about it. Hence their cognitions about the change will not be affected. It was also found that continuance commitment has direct and negative effects on both the cognitive and behavioural components of attitudes towards change and this may suggest that employees who remain with the organisation because of low perceived alternatives or high personal sacrifice are more likely to have positive attitudes towards change when there are few alternatives outside the organisation or when the cost of leaving the organisation is too high.

By contrast, when alternatives are abundant or the cost of leaving the organisation is low, employees' are less tolerant of change, as they are able to move outside the organisation more easily (Yousef, 2000). Yousef (2000) also found that normative commitment has direct and positive effects on the cognitive component of attitudes towards change. This may suggest that those who decide to remain with the organisation because they feel a sense of obligation towards it, will have a strong cognitive attitude towards change but their behavioural and affective components of attitudes towards change will not be affected.

#### **1.1.4 Towards constructing a psychological profile for change management interventions: Integration of work stress, psychological attachment and attitudes towards change**

The central hypothesis of the research is that the overall relationship between employees' sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change will constitute a psychological profile that may be used to inform organisational change practices in the FMCG work environment. More specifically, strengths in an individual's psychological attachment profile (high levels of organisational commitment and job embeddedness) may significantly contribute to the reduction of the negative effect of sources of work stress on the employee's attitudes towards change. This may have a positive impact on the general well-being and retention of employees in the organisation, which has been shown to be of strategic importance to organisations today (Döckel, Basson, & Coetzee, 2006; Swart, 2009; Coetzee & Schreuder 2008; McKnight, Philips, & Hardgrave 2009; Van Dyk et al., 2013). In addition, psychological attachment (organisational commitment and job embeddedness) as a potential mediator in the relationship between sources of work stress and attitudes towards change will provide new meaning to the well-being and retention of employees in the organisation. Moreover, employees' biographical characteristics (age, race, gender and employment level) may moderate or influence the relationship between sources of work stress, psychological attachment and attitudes towards change (Bellou, 2010; Vakola & Nikolaou, 2005; Van Den Heuvel et al., 2010).

The conservation of resources (COR) theory suggests that individuals seek to acquire, maintain and promote things that are important to them (Hobfoll, 2002). Employees therefore tend to experience work stress when their resources are threatened. In contrast, when resources are obtained, this is viewed as a motivational dimension for the employee (Hobfoll, 2002). One of the premises of COR theory is that employees will make every attempt to protect their resources against loss. Hobfoll (2011) argues that employees with more resources are less exposed to loss of resources and are consequently able to obtain more resources. Conversely, employees with fewer resources are more exposed to loss of resources and are less able to obtain more resources. Resources refer to things that are important to the employee (relationships and job autonomy) or that are required to gain significant things (money and benefits).

Personal resources can be seen as positive facets of the self that represent an employee's ability to exercise control of life events or circumstances (Demerouti & Bakker, 2011; Halbesleben, 2010; Hobfoll, Johnson, Ennis, & Jackson, 2003). Interestingly, research has shown that job resources such as supervisor or manager support can be likened to personal resources that protect an employee from sources of work stress (Demerouti & Bakker, 2011; Viljoen & Rothman, 2009; Van Den Heuvel et al., 2010; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). Therefore personal resources may protect employees' psychological well-being from the effects of work stress and help them achieve their personal goals. Work stress can be regarded as a threat to the physical and psychological well-being of employees (Seyle, 1956). Lazarus and Folkman's (1987) transactional model of work stress suggests that when there is a stressor, the employee appraises the situation and evaluates how he or she will cope with the stressor. Coping can be defined as the cognitive and behavioural attempts that continuously change to manage internal or external difficulties that are beyond the resources of the employee (Lazarus & Folkman, 1984). Thus employees require various behavioural and mental competencies which need to be altered regularly in order to cope with stressors. Effective coping strategies are therefore required by the employee. COR theory posits that positive feelings and resource attainment are critical during the process of resource loss, especially during stressful situations (Hobfoll, 2002; Landen & Wang, 2010; Latif, 2010). It therefore seems that employees can protect their psychological well-being during stressful events such as changes in the workplace through the attainment of resources. In addition, Vakola and Nikolaou (2005) found that employees who constantly experience change in the work environment experience high levels of work stress where negative attitudes towards change are symptoms of the situation.

Furthermore, work stress causes an employee, in some instances, to experience psychological problems such as depression (Kelloway & Barling, 1991; Vakola & Nikolaou, 2005). Hence personal resources in the form of psychological attachment (organisational commitment and job embeddedness) may mediate or buffer the effects of work stress and attitudes towards change on an employee's psychological well-being. Shuck, Reio, and Rocco (2011) found that employees who perceive they have the emotional, physical and psychological resources that are necessary for performance at work are more likely to stay in the organisation, and the organisation thus benefits from a retention perspective. This study focuses on sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change, where psychological attachment may act as the mediator or personal resource for the employee in his or her ability to cope with ongoing change and high levels of work stress.

#### **1.1.5 The influence of age, gender, race and employment level on sources of work stress, psychological attachment and attitudes towards change**

Vakola and Nikolaou (2005) conducted a study on attitudes towards organisational change, the role of employee stress and commitment. They investigated the role of demographic characteristics on the variables. In terms of *age*, no differences were identified between the four age groups in the sample in terms of work stress, organisational commitment and attitudes towards change. However, in terms of *gender* it was found to affect both attitudes to change and stress at work when independent t-tests were conducted. Females scored higher than males on the attitudes towards organisational change scale, suggesting that males tend to be more reluctant than females about organisational change. In terms of work stress, males also scored significantly higher than females on a number of scales, namely work relationships, overload and the overall job stress index, thus demonstrating higher levels of occupational stress compared to females. Males also scored higher in organisational commitment (commitment of the employee to the organisation). No study (as far as has been researched) has investigated the influence of *race* and *employment level* in the relationship between sources of work stress, psychological attachment and attitudes towards change particularly within the South African FMCG work context. This study will thus attempt to explore this relationship.

## 1.2 PROBLEM STATEMENT

Organisational psychologists are challenged to produce empirically tested and systematically improved approaches to managing change interventions successfully that address work stress, psychological attachment and attitudes towards change. The problem seems to be a scarcity of research to demonstrate how psychological attachment (organisational commitment and job embeddedness) may in fact influence or mediate the sources of work stress and negative attitudes towards the change relationship, and by implication, the outcomes of change interventions, especially in the South African FMCG work context. Investigating the relationship between work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change may help to construct a theoretical and empirically related psychological profile for change interventions that constitutes those attributes, behaviours and preferences that may potentially influence the successful implementation of change interventions. This research is a starting point in adopting a dynamic approach towards exploring the relationship dynamics between employees' work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change, and how their biographical characteristics (age, gender, race and employment level) contribute to the interplay between these variables. A review of the current literature on work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change indicates the following research problems:

- Current research does not clarify the relationship dynamics between work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change in an integrated manner.
- In the context of change interventions and management, organisational psychologists require knowledge of the nature of the theoretical and empirically observed relationship between these variables (work stress, psychological attachment and attitudes towards change), because the knowledge that could be gained from this study may potentially bring new insights that could inform organisational change interventions and management.

- There seems to be a paucity of research investigating the mediating effect of psychological attachment constructs such as organisational commitment and job embeddedness on the work stress and change attitude relationship that may potentially influence the outcome of organisational change initiatives for the organisation and how employees' biographical characteristics (age, gender, race and employment level) contribute to the dynamic interplay between these variables, especially in the South African FMCG work context.

Research on the relationship dynamics between work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change in an ever-changing work context could make a valuable contribution to the discipline of organisational psychology as a sub-field of psychology. Lastly, the empirical results of this study could stimulate further research to facilitate the possible emergence of a new genre of organisational change practices emanating from understanding employees' psychological profiles required for change interventions in order to improve these practices in the organisation.

The problem statement leads to the following general research question:

- What are the relationship dynamics between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change, and how do the elements of the overall psychological profile constructed from the relationship dynamics inform change interventions in a South African FMCG context?

### **1.2.1 Research questions pertaining to the literature review**

In terms of the literature review, the specific research questions were formulated as follows:

**Research question 1:** How does the literature conceptualise sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change in the contemporary world of work?

**Research question 1.1:** How is the work stress construct conceptualised in the literature and how do employees' biographical characteristics (age, gender, race and employment level) influence this construct?

**Research question 1.2:** How is the psychological attachment construct (organisational commitment and job embeddedness) conceptualised in the literature and how do employees' biographical characteristics (age, gender, race and employment level) influence this construct?

**Research question 1.3:** How is the attitude towards the change construct conceptualised in the literature and how do employees' biographical characteristics (age, gender, race and employment level) influence this construct?

**Research question 2:** Based on the theoretical relationship between the sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change, how do the elements of the overall psychological profile constructed from the relationship dynamics inform change interventions in a South African FMCG context?

**Research question 3:** What are the implications of the psychological profile for organisational change intervention practices?

### **1.2.2 Research questions pertaining to the empirical study**

In terms of the empirical study, the research questions are as follows:

**Research question 1:** What are the empirical inter-relationships between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change as displayed in a sample of respondents in the South African FMCG context?

**Research question 2:** What is the overall statistical relationship between sources of work stress and psychological attachment (organisational commitment and job embeddedness) as independent variables and attitudes towards change (as the dependent variable)?

**Research question 3:** Do organisational commitment and job embeddedness significantly mediate the relationship between sources of work stress and attitudes towards change?

**Research question 4:** Do the biographical variables (age, gender, race and employment level) significantly moderate the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change?

**Research question 5:** What recommendations can be made for organisational change intervention practices and future research?

### **1.3 AIMS OF THE RESEARCH**

Based on the above research questions, the aims as set out below were formulated.

#### **1.3.1 General aims of the research**

The general aim of this research is to investigate the relationship dynamics between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change, and to determine how the elements of the overall psychological profile constructed from the relationship dynamics inform change interventions in a South African FMCG context.

#### **1.3.2 Specific aims of the research**

The specific aims as set out below were formulated for the literature review and empirical study.

##### *1.3.2.1 Literature review*

In terms of the literature review, the specific aims were as follows:

**Research aim 1:** To conceptualise sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change in the contemporary world of work.

**Research aim 1.1:** To conceptualise the work stress construct and explore how employees' biographical characteristics (age, gender, race and employment level) influence this construct.

**Research aim 1.2:** To conceptualise the psychological attachment construct (organisational commitment and job embeddedness) and explore how employees' biographical characteristics (age, gender, race and employment level) influence this construct.

**Research aim 1.3:** To conceptualise the attitude towards change construct and explore how employees' biographical characteristics (age, gender, race and employment level) influence this construct.

**Research aim 2:** To conceptualise the theoretical relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change, and to explore how the elements of the psychological profile constructed from the theoretical relationship dynamics inform organisational change interventions.

**Research aim 3:** To outline the psychological profile for organisational change interventions practices and formulate recommendations for future research.

#### *1.3.2.2 Empirical study*

In terms of the empirical study, the specific aims are as follows:

**Research aim 1:** To assess the empirical inter-relationships between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change as displayed in a sample of respondents in the South African FMCG context.

**Research aim 2:** To assess the overall statistical relationship between sources of work stress and psychological attachment (organisational commitment and job embeddedness) as independent variables and attitudes towards change (as the dependent variable).

**Research aim 3:** To assess whether psychological attachment (organisational commitment and job embeddedness) significantly mediates the relationship between sources of work stress and attitudes towards change.

**Research aim 4:** To assess whether the biographical variables (age, gender, race and employment level) significantly moderate the relationship between experiences of sources of work stress and attitudes towards change.

**Research aim 5:** To assess whether the biographical variables (age, gender, race and employment level) that functioned as significant moderating variables in the sources of work stress attitudes toward change relation differ significantly regarding their sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes toward change.

**Research aim 6:** To formulate recommendations for organisational change intervention practices and future research.

## **1.4 STATEMENT OF SIGNIFICANCE**

The factors underlying the problem of developing a psychological profile for change interventions appear to be diverse and complex. Many factors constrain or promote the development of a psychological profile for change interventions. The role of sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change in the development of a psychological profile for change interventions has not yet been well researched, especially in the South African FMCG work context. This study is a starting point for investigating the relationship dynamics between sources of work stress (as defined by Coetzee & De Villiers, 2010), psychological attachment (as defined by O'Reilly & Chatman, 1986; Meyer & Allen, 1997; Mitchell et al., 2001a) and attitudes towards change (as defined by Dunham et al., 1989) in the organisational change context.

### **1.4.1 Potential contribution at a theoretical level**

At a theoretical level, this study may demonstrate usefulness because of the relationship identified between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. If significant relationships are found, then the findings should be useful in the development and proposal of a psychological profile for change interventions. In terms of the relationship between work stress

and attitudes towards change, if significant relationships are found, then the findings could be useful in managing sources of work stress for the employee, which will impact on the employee's attitudes towards change. In terms of organisational commitment, a psychological profile may point to a manifestation of compliance, identification and internalisation which could evoke higher levels of commitment for the employee undergoing change (Bennett & Durkin, 2000). In terms of job embeddedness, the links and fit an employee may have to an organisation undergoing change and attitudes towards change (affective, cognitive and behavioural) could be aligned to the psychological profile expression for the employee. Lastly, exploring how employees' biographical characteristics influence the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change, may prove to be useful in understanding organisational change in the South African FMCG work context.

#### **1.4.2 Potential contribution at an empirical level**

At an empirical level, this study could contribute to the construction of an empirically tested psychological profile for change interventions that could be used to inform organisational change practices. If no relationships are found between the variables, then the usefulness of this study will be restricted to the elimination of psychological attachment (organisational commitment and job embeddedness) as a mediator of sources of work stress and attitudes towards change. Researchers could potentially then turn their attention to other constructs of relevance that could possibly yield significant proof of solving the issue of work stress and attitudes towards change. Lastly, the study may highlight employees with diverse age, gender, race and employment levels who differ in terms of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change and their psychological profile. In light of the diverse South African working context, the results may be valuable in informing organisational change practices (addressing diversity in needs).

#### **1.4.3 Potential contribution at a practical level**

At a practical level, if change practitioners, counsellors and industrial and organisational psychologists could develop an enhanced understanding of the relationship between work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change when considering the psychological profile of the employee with

regard to change interventions, this may prove useful in terms of improved organisational change practices going forward. Consequently, the outcomes of this study would be significant enough to justify the continuation of this study.

Positive outcomes of this study could include raising awareness that employees in fact have a psychological profile unique to them, which will culminate in higher success rates of organisational change interventions as a result of improved levels of stress and positive attitudes towards change. Another positive outcome of this study could be the realisation of the way psychological attachment (organisational commitment and job embeddedness) may in fact mediate work stress and negative attitudes towards change caused by organisational change initiatives. Ongoing coaching and mentoring by managers in the organisation during change may be emphasised and fully recognised going forward. Where empirically significant relationships are found, these findings could be useful in exploring psychological attachment (organisational commitment and job embeddedness) as a mediator to work stress and negative attitudes towards change.

Lastly, the results of this study could contribute to the body of knowledge relating to work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change in the South African FMCG work context. To date there is no existing study based on the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change in the South African FMCG work context.

## **1.5 THE RESEARCH MODEL**

The research model of Mouton and Marais (1996) will serve as a framework for this study. The model will incorporate the five dimensions of social science research, these being sociological, ontological, teleological, epistemological and methodological dimensions, and systemise them within the framework of the research process. These five dimensions are aspects of one and the same process, namely research. The assumption of this research model is that it represents a social process. Social science research can be described as a collaborative human activity in which social reality is studied accurately with the aim of gaining a valid appreciative understanding of it (Mouton & Marais, 1996). The model is described as a systems theoretical model with three subsystems. These subsystems are interrelated and are also related to the research domain of the specific discipline, in this case, organisational psychology, as a sub-field

of psychology. The subsystem represents the intellectual climate, the market for intellectual resources and the research process itself (Mouton & Marais, 1996).

## **1.6 PARADIGM PERSPECTIVES OF THE RESEARCH**

A paradigm can be viewed as a conceptual framework within which theories are formulated and perspectives can be formed (Babbie, 2012). It refers to the intellectual climate or meta-theoretical beliefs, values or assumptions that form the definitive boundary of the research (Babbie & Mouton, 2007).

### **1.6.1 The intellectual climate**

The literature review will be presented from the perspective of the humanistic-existential and open-systems paradigm. The empirical study will be presented from the positivist research paradigm.

#### *1.6.1.1 The literature review*

The literature review will be presented from the perspective of the humanistic-existential and open-systems paradigm, as explained below.

#### **The humanistic paradigm**

Meyer, Moore, and Viljoen (1997) outline five assumptions of the humanistic paradigm as follows:

- The individual is an integrated whole

The current research will focus on the perspectives of employees in an organisation as a collective entity. It will go beyond exploring views of employees of that unit, taking into consideration the impact of the collective on the employee.

- The individual has conscious processes

Conscious processes prescribe individuals' decisions. This research will focus on psychological attachment (organisational commitment and job embeddedness) and attitudes towards change as a method to collect information on the manner in which employees perceive the organisation.

- The individual is a dignified human being

Human beings have qualities that differentiate them from other entities such as stones and trees. The current research is interested in a sample of the population's views and opinions.

- Human nature is positive

People are basically good, and their destructive behaviour is caused by environmental influences such as poverty, racism, discrimination and favouritism.

- The individual is an active being

Individuals are dynamic participants in life and they make choices and are accountable for the courses their lives take.

## **Existentialism**

In terms of existentialism, individuals are viewed as constantly constructing their personalities through their actions instead of adopting a set of static traits (Kobasa, Maddi, & Kahn, 1982). According to Maddi (2002), as time progresses, more pervasive meaning systems and directions emerge for the individual. For every decision the employee makes, he or she must choose the direction, either a direction that is familiar from the past or unfamiliar with "unknowns". These meaning systems then create what Maddi (2002) refers to as "developmental trajectories" that build developmental growth for the employee. One needs to be mindful that consistently choosing a future with unknowns or unfamiliarity warrants a more desirable path for the employee as there is ongoing development. However, while there may be development for the employee, unfamiliarity may also spark anxiety for the employee.

According to Maddi (2002), existential courage (willingness to confront anxiety when the employee faces the unknown) provides the employee with the necessary support to focus on a

more future-oriented choice. These employees are able to maintain attitudes that are aligned to a sense of continuous striving. In addition, Maddi (2002) refers to authenticity, whereby employees have the ability to exert control over internal and external events. This enables them to deal with sources of work stress, which presents them with a challenge as opposed to a threat. In the context of this study, this perspective is important for the employee's ability to deal with change and factors such as stress and to maintain a positive attitude towards change. Thematically, the humanistic-existential paradigm relates to the constructs of psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.

### **The open-systems paradigm**

The open-systems paradigm views an individual as part of an organisation who interacts with the external environment. The following five assumptions of the open-systems paradigm were identified by Hodge, Anthony, and Gales (2002):

- The organisation is an open system and interacts with the external environment.
- The open system is characterised by a set of interrelated and independent parts arranged in a manner that results in a unified whole.
- It is characteristic of throughputs, inputs, transformation processes and outputs.
- The open system leans towards extension and growth.
- It engages in the process of maintenance, production and adaptation of its functioning.

In terms of this research, thematically, sources of work stress and attitudes towards change will relate to the open-systems paradigm.

#### *1.6.1.2 The empirical study*

The empirical research will be presented from the positivist paradigm. The positivist paradigm can be viewed as the:

- rule of phenomenalism, which asserts that there is only experience and all abstractions have been rejected;
- separation of facts from values;
- unity of the scientific methods; and

- rule of nominalism, which asserts that words, generalisations and abstractions are linguistic phenomena and do not give new insight into the world (Kolakowski, 1972; Polgar & Thomas, 2013).

According to the positivist epistemology, science is seen as an avenue to arrive at the truth, to understand the world in a sound enough manner, to the extent that it might be predicted and controlled. In addition, the world is deterministic – that is, it operates by laws of cause and effect that are apparent if people apply the scientific method. Krauss (2005) indicates that the positivist paradigm is based on empiricism, the idea that observation and measurement are at the core of the scientific endeavour. Thematically, this study will focus on using a quantitative research approach in exploring the relationship dynamics between the sources of work stress, psychological attachment and attitudes towards change.

## **1.6.2 The market for intellectual resources**

According to Mouton and Marais (1996), the market for intellectual resources refers to the collection of beliefs that have bearing on the epistemic states of scientific statements. For the purpose of this research, the meta-theoretical statements and conceptual descriptions about work stress, psychological attachment and attitudes towards change, as well as the central hypothesis (theoretical, methodological assumptions) are presented.

### *1.6.2.1 Disciplinary field*

Mouton and Marais (1996) indicate that the underlying assumptions of theories, models and paradigms form the context of the specific study. In terms of the disciplinary context, this study will focus on organisational psychology as a sub-field of psychology (Mouton & Marais, 1996).

### **Organisational psychology**

Organisational psychology is a sub-field of psychology. Industrial and organisational psychology studies, inter alia, the organisation's responsiveness in terms of the psychological, economic and socio-political forces. These forces concentrate on individual, group and system level intervention (Coetzee & Schreuder, 2010). Furthermore, industrial and organisational psychology can be considered in a number of ways. One mode emphasises the epistemological

and scientific status of the premises. According to Van Vuuren (2010), the purpose of the epistemology of scientific knowledge in the discipline is to understand, influence or change organisation-related behaviour. Thematically, this study will provide an understanding of change in a FMCG environment by applying the constructs of work stress, psychological attachment and attitudes towards change.

#### *1.6.2.2 Conceptual descriptions*

The following conceptual descriptions will serve as a point of reference for the discussion of this study:

##### **Work stress**

Work stress emerges from a dynamic transaction between a person and his or her environment that is appraised as potentially challenging, threatening or harmful, and which leads to efforts to resolve the appraised challenge, threat, or harm through coping processes (Lazarus, 1999).

##### **Psychological attachment**

O'Reilly and Chatman (1986) define psychological attachment as the degree to which the employee internalises perspectives of the organisation. In terms of the present study, psychological attachment refers to organisational commitment and job embeddedness.

##### **Organisational commitment**

Allen and Meyer (1990) define organisational commitment as the psychological state that connects an employee to an organisation.

##### **Job embeddedness**

According to Holtom et al. (2006), job embeddedness signifies a broad set of influences on an employee's decision to remain in the job. These influences encompass on-the-job factors (bonds with peers, the fit between an employee's skills and the job, and community service activities).

## **Attitudes towards change**

Attitudes towards change can be defined as an employee's positive or negative judgement of a change implemented by the organisation (Elias, 2009).

### *1.6.2.3 Theoretical models*

The theoretical models relevant to this study are Lazarus and Folkman's (1984; 1987) transactional model of work stress and Dunham et al.'s (1984) model of attitudes towards change and the conservation of resources (COR) theory.

#### **Lazarus and Folkman's (1987) transactional model of work stress**

This transactional model of work stress will be used to explore the construct of sources of work stress.

#### **Dunham et al.'s (1989) model of attitudes toward change**

This model of attitudes towards change will be used to underpin the construct of attitudes towards change.

#### **The conservation of resources (COR) theory**

This theory will be used in this study to clarify the role of psychological attachment (organisational commitment and job embeddedness) in the relationship between work stress and attitudes towards change.

### **1.6.3 Central hypothesis**

The relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change may constitute a psychological profile for change interventions that could be used to inform organisational change practices in the FMCG work environment. Psychological attachment could have a mediating effect on sources of work stress and change attitudes. Employees' biographical

characteristics (age, gender, race and employment level) might moderate the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.

#### **1.6.4 Theoretical assumptions**

- There is a need for basic research that seeks to isolate work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.
- Employees' biographical characteristics (age, gender, race and employment level) might moderate the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.
- Understanding an employee's sense of sources of work stress, psychological attachment and attitudes towards change might increase the understanding of the factors that potentially inform organisational change practices in the FMCG work environment.

#### **1.6.5 Methodological assumptions**

Methodological assumptions are beliefs that are related to the nature of scientific research in the social sciences and that encompass assumptions about what constitutes respectable research. According to Mouton and Marais (1996), there is a connection between methodological and epistemological assumptions. Hence the epistemological assumptions that impact on the nature of methodological assumptions that establish sound research are shown.

##### *1.6.5.1 The ontological dimension*

The ontological dimension refers to the study of "being" or "reality" of the research. This "being" or "reality" is referred to as the domain of social science research, which includes human activities and institutions whose behaviour can be measured (Mouton & Marais, 1996). This study will measure the constructs of work stress, psychological attachment and attitudes towards change.

##### *1.6.5.2 The sociological dimension*

The sociological dimension adapts to the requirements of the sociological research ethos for its sources of theory development. It is viewed as a collaborative activity. Within the parameters of the sociological dimension, research is viewed as experimental, accurate and analytical, since the constructs being researched are subject to quantitative research analysis (Mouton & Marais, 1996). The concepts relating to this study (work stress, psychological attachment and attitudes towards change) will be described in the empirical research and research results section.

#### *1.6.5.3 The teleological dimension*

The teleological dimension is goal oriented. Research goals refer to the goals of a particular research project (Mouton & Marais, 1996). The research goals in this study are clear, namely to measure the relationship between work stress, psychological attachment and attitudes towards change. In applied terms, the teleological dimension aims to further the field of organisational psychology providing understanding that enables improved organisational change practices.

#### *1.6.5.4 The epistemological dimension*

According to Mouton and Marais (1996), the epistemic dimension can be regarded as the embodiment of the ideal of science, that is, it will seek to uncover the truth. A primary purpose of research is to generate valid and reliable findings which approximate reality in the best possible way. This study aims to achieve the truth through a solid research design which yields reliable and valid outcomes.

#### *1.6.5.5 The methodological dimension*

Mouton and Marais (1996) maintain that methodological assumptions in the social sciences are related to research which may be regarded as objective, by being critical, unbiased and systematic. The methodological dimension concerns the way in which research should be structured and executed in order to remain compliant with the criteria of science. Mouton and Marais (1996) indicate that the objective of the methodology dimension is to develop a more critical assessment of researchers by eliminating obviously incorrect decisions and to maximise the validity of research findings. In this study, quantitative and qualitative research methods will be presented in the form of a literature review on work stress, psychological attachment and attitudes towards change. The findings of the research will be presented in the empirical study.

## **1.7 RESEARCH DESIGN**

Research design is defined as the organisation of conditions for the collection and analysis of data in a manner that aims to combine significance with the research purpose (Mouton & Marais, 1996). It can be viewed as a strategic framework which serves as a bridge between the research questions and the execution of the research (Creswell, 2013; Terre Blanche & Durrheim, 2002). The research design will be discussed in terms of the types of research conducted, followed by a discussion on validity and reliability.

### **1.7.1 Descriptive research**

Descriptive research refers to a solid description of the specific individual, situation, group, organisation, tribe, culture, sub-culture, interactions or social objects. It serves to systematically classify the relationships between variables in the study (Creswell, 2013; Mouton & Marais, 1996). The overall aim of descriptive research is to describe the issues as accurately as possible. In the literature review, descriptive research applies to the conceptualisation of the constructs work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. In the empirical study, descriptive research applies to the means, standard deviations and Cronbach alphas (internal consistency reliabilities) of the constructs of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.

### **1.7.2 Exploratory research**

According to Babbie (2012) and Mouton and Marais (1996), exploratory research refers to the exploration of a relatively unfamiliar research field. The key priorities are to gain new insights, establish central constructs and then establish priorities. This research is exploratory in that it compares various theoretical perspectives on the sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.

### **1.7.3 Explanatory research**

Explanatory research goes a step further than simply indicating that a relationship exists between the variables (Babbie, 2012; Mouton & Marais, 1996), because it also indicates causality between variables or events. Its major aim is to explain given occurrences. Owing to the cross-sectional nature of the research design, the present research does not investigate cause and effect, but seeks instead to explore the nature, direction and magnitude of the relationship between the variables of relevance to the study. In the empirical study, this form of research is applicable to the relationship between the sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. The end goal of the research is to formulate a conclusion on the relationship between the constructs of sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change with the aim of constructing a psychological profile for change interventions. This research therefore fulfils the requirements of the type of research defined above.

### **1.7.4 Validity**

Research should maintain validity both internally and externally. Internal validity refers to the study generating accurate and valid findings on a specific area of interest (Mouton & Marais, 1996). The results of the study are internally valid if they are measured in a valid manner, while external validity refers to whether the findings are generalisable (Hair, Black, Babin, & Anderson, 2010; Mouton & Marais, 1996). Hair et al. (2010) and Terre Blanche and Durrheim (2002) indicate that both internal and external validity are critical for a research design. In addition, for the study to maintain internally valid results, the constructs should be measured in a valid manner, the data analysis should be specific to the type of data collected and the final recommendations should be sufficiently supported by the data.

#### *1.7.4.1 Validity of the literature*

In this study, validity was ensured by making use of literature that relates to the nature, problems and aims of the research. The constructs, concepts and dimensions that form part of work stress, psychological attachment and attitudes towards change were found in the relevant literature. Constructs, concepts and dimensions were not chosen subjectively, and were ordered

logically and systematically. An attempt was made to examine and make use of the most recent literature sources, but a number of classical and contemporary research studies were also referred to owing to the relevance of the constructs in the study.

#### *1.7.4.2 Validity of the empirical research*

In the empirical research, validity was confirmed through the use of relevant and standardised measuring instruments. The measuring instruments were critically examined for their criterion-related validity (to ensure accurate prediction of scores on the relevant criteria), construct validity (the extent to which the measuring instruments measure the theoretical constructs they purport to measure) and content validity. Internal validity was ensured by minimising selection bias (targeting the population of individuals working in the FMCG industry in South Africa).

As large a sample as possible was chosen to offset the effects of extraneous variables. The questionnaire also included standard instructions and information to all participants. The statistical procedures also controlled for biographical variables. The instruments were tested for construct validity and reliability. There were extraneous factors unrelated to the research but which affected the dependent variables (Hair et al., 2010; Terre Blanche, Durrheim, & Painter, 2006). Thematically, the present study focused on the moderating role of age, gender, race and employment level.

External validity refers to the degree to which it is possible to generalise from the data gathered and context of the research study to larger populations and other environments (Terre Blanche et al., 2006). External validity is also associated with the sampling procedures used, the time and place of the research, and the conditions under which the research was conducted (Terre Blanche et al., 2006). External validity was ensured by the results being relevant only to individuals working in the FMCG industry in South Africa. Targeting the total population of employees in the FMCG industry helped to increase the generalisability of the results to the target population. The research was cross-sectional and non-probability sampling was used. Standard instructions were provided to all participants. The validity of the data gathering instruments was ensured as follows:

- The constructs of this research were measured in a valid manner by the use of questionnaires that were tested in scientific research and accepted as the most suitable in terms of face validity, content validity and construct validity.
- Efforts were made to ensure that the data collected were accurate, and accurately coded and appropriately analysed to ensure content validity. The processing of statistics was done by an expert and by using the most recent and sophisticated computer packages.
- The researcher ensured that the findings of this research were based on the data analysed in order to ensure content validity. The reporting and interpretation of results was done according to standardised procedures.
- The researcher ensured that the final conclusions, implications and recommendations were based on the findings of the research.

### **1.7.5 Reliability**

According to Hair et al. (2010) and Mouton and Marais (1990), reliability refers to the application of valid measuring instruments to different individuals and groups under different sets of conditions which produce results with the same conclusions.

#### *1.7.5.1 Reliability of the literature study*

Reliability in the literature study was maintained by

- using the existing literature, theories and models that were available and appropriate for the study;
- ensuring that other academics had access to the literature sources and to the theoretical views in the literature; and
- structuring the research model in such a way that extraneous variables were limited.

#### *1.7.5.2 Reliability of the empirical research*

Reliability is concerned with stability and consistency and refers to whether a particular measuring method (instrument) that is applied repeatedly to the same object yields the same result each time. Cronbach's coefficient alpha was used to determine the internal consistency reliability of the questionnaires (Terre Blanche et al., 2006). Appropriate statistical techniques

congruent with the aims of this research were used to analyse the data. Cronbach's alpha coefficient measure estimates reliability based on the number of items in the test and the average intercorrelation between test items (Hair et al., 2010; Murphy & Davidshofer, 2005). Cronbach's alpha ranges from 0, which means there is no internal consistency, to 1, which is the maximum internal consistency score (Terre Blanche et al., 2006). Therefore the higher the alpha, the more reliable the item or test will be. A Cronbach alpha of .70 to .75 is considered a desirable reliability coefficient (Terre Blanche et al., 2006).

#### **1.7.6 The unit of research**

According to Mouton and Marais (1996), the most common object of research in the social sciences is the individual human being. The unit of analysis is distinguished by the conditions, characteristics, orientations and actions of individuals, groups and organisations. This study focused on the constructs of work stress, psychological attachment and attitudes towards change. At individual level, the individual scores on each of the measuring instruments were taken into consideration. At group level, the overall scores on all the measuring instruments were examined, and at sub-group level, the biographical characteristic (age, race, gender and employment level) scores were considered in order to determine whether there is a relationship between the constructs of work stress, psychological attachment and attitudes towards change, as well as to develop a psychological profile for change interventions that could be used in FMCG work environments.

#### **1.7.7 The variables**

In this study, the researcher was interested in assessing the intermediary process (represented by individuals' psychological attachment – explained by their organisational commitment and job embeddedness – as mediating variables) that leads from their sources of work stress (as independent variables) to their attitudes towards change (as dependent variables). The mediation effect of psychological attachment (as a relatively temporary state of being) on the relationship between individuals' sources of work stress and attitudes towards change was assessed. Mediator variables explain the relationship between the independent and dependent variables (Terre Blanche et al., 2006). According to Hair et al. (2010) and Mouton and Marais (1996), differentiation between the independent and dependent variables refers to the basic cause and effect between specific events or phenomena. However, as previously stated, the

present research did not investigate cause-and-effect but instead endeavoured to explore the nature, direction and magnitude of the relationship between the variables of relevance to the study.

In terms of this study, the criterion data of sources of work stress (independent variable), psychological attachment (organisational commitment and job embeddedness) as mediating variables and attitudes towards change (dependent variable) were collected by means of criteria forms (the measuring instruments) selected for the purpose of this research.

The study also sought to assess the moderation or interaction effect of individuals' biographical characteristics (age, gender, race and employment level) on the relationship between sources of work stress, psychological attachment and attitudes towards change. Moderating variables entail a third variable that may change the direction of the relationship between other variables (MacKinnon, Coxe, & Baraldi, 2012). It is thus important that these variables (age, gender, race and employment level) are taken into consideration, Figure 1.1 illustrates the relationship between the variables.

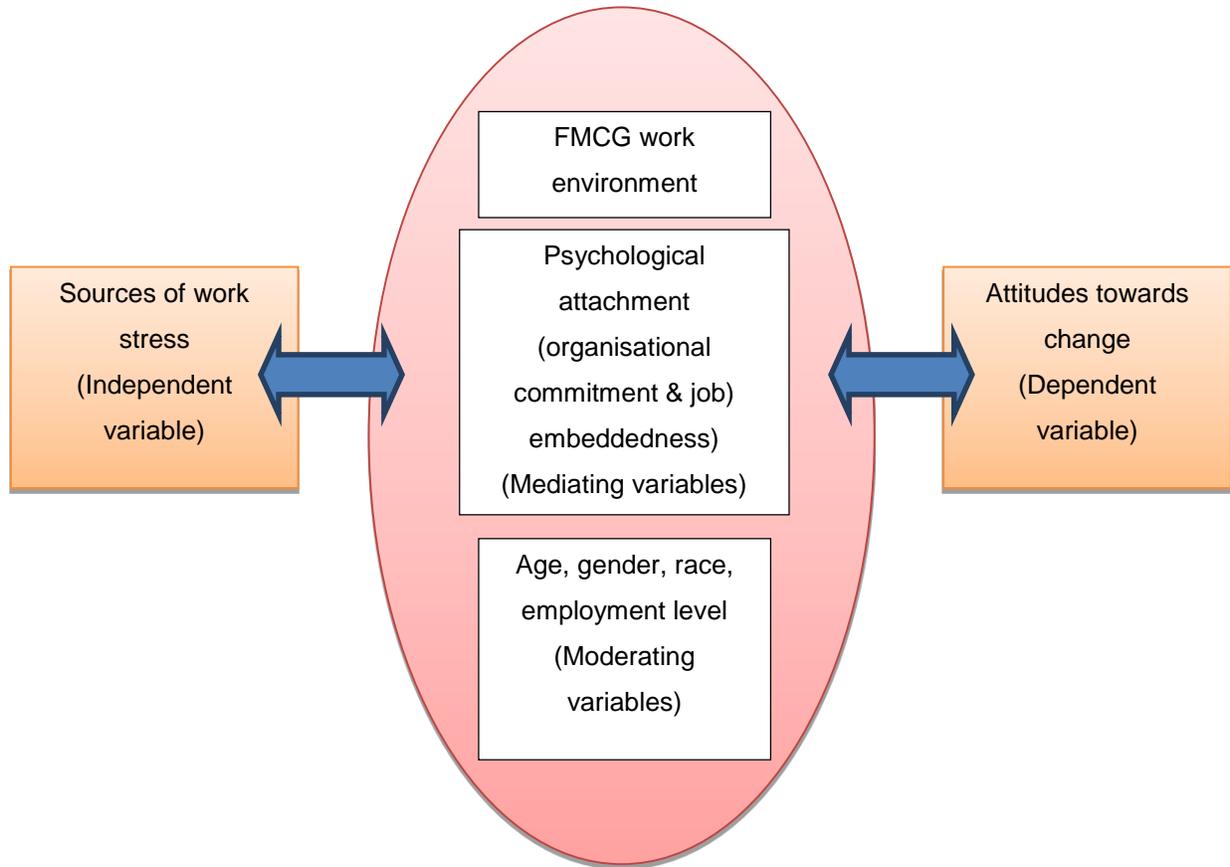


Figure 1.1. The relationship between the variables

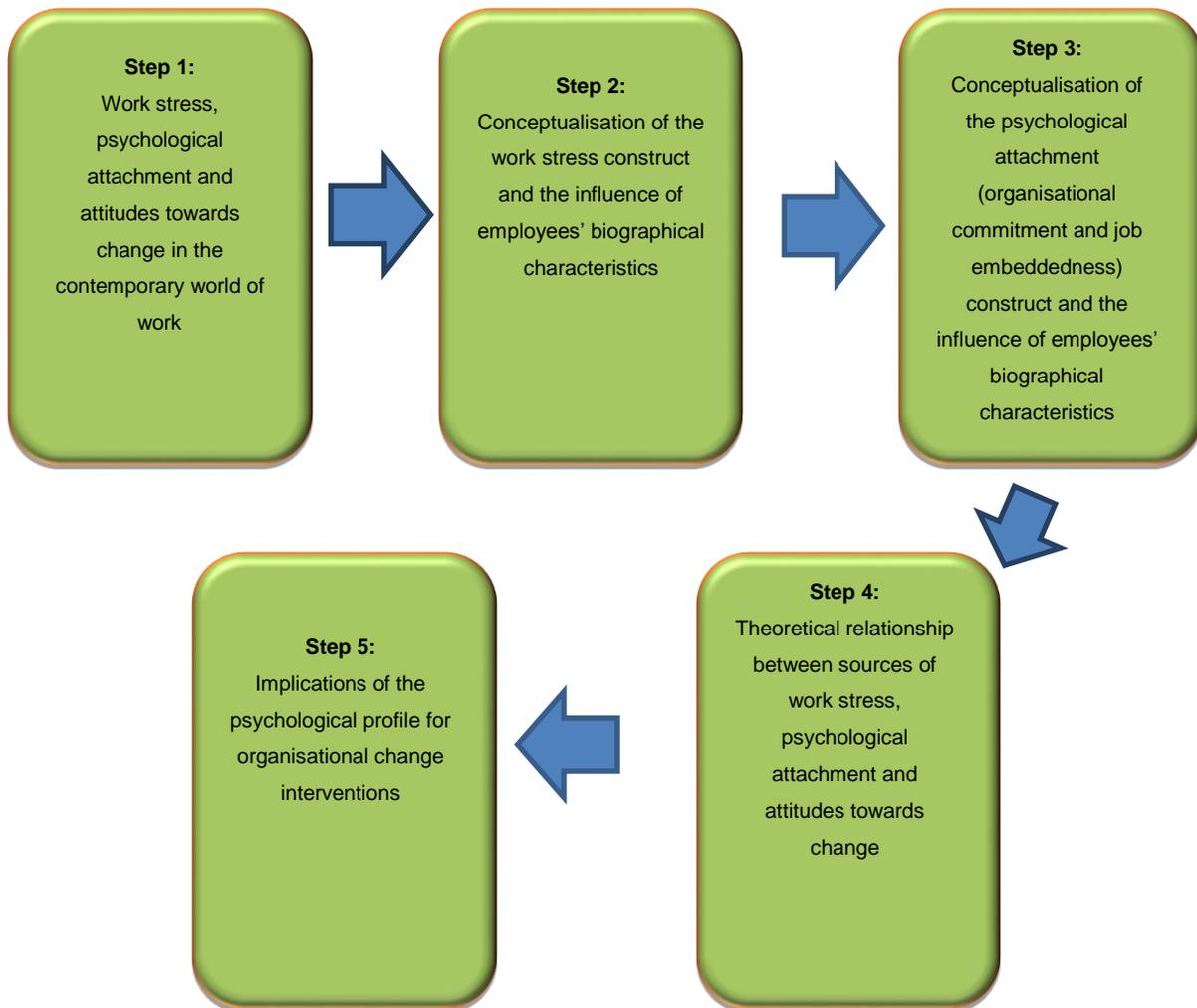
### 1.7.8 Delimitations

This study was confined to dealing with the relationship between work stress, psychological attachment and attitudes towards change. In an attempt to identify oblique factors that could influence sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change, the variables used as control variables were limited to age, race, gender and employment levels. No attempt was made to classify or manipulate any of the results on the basis of family background, spiritual beliefs and psychological and physical factors. This study was projected as ground research that limited focus to the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. Identification of this relationship would then enable other researchers to use it as a basis to identify other factors relating to these constructs.

## 1.8 THE RESEARCH METHODOLOGY

This research was conducted in two phases (the literature review and the empirical study). Figure, 1.2 below provides an overview of the research methodology process, which comprises of two phases. Phase 1 outlines the steps in the literature review process and phase 2 outlines the steps in the empirical study.

### Phase 1: The literature review



## Phase 2: The empirical study

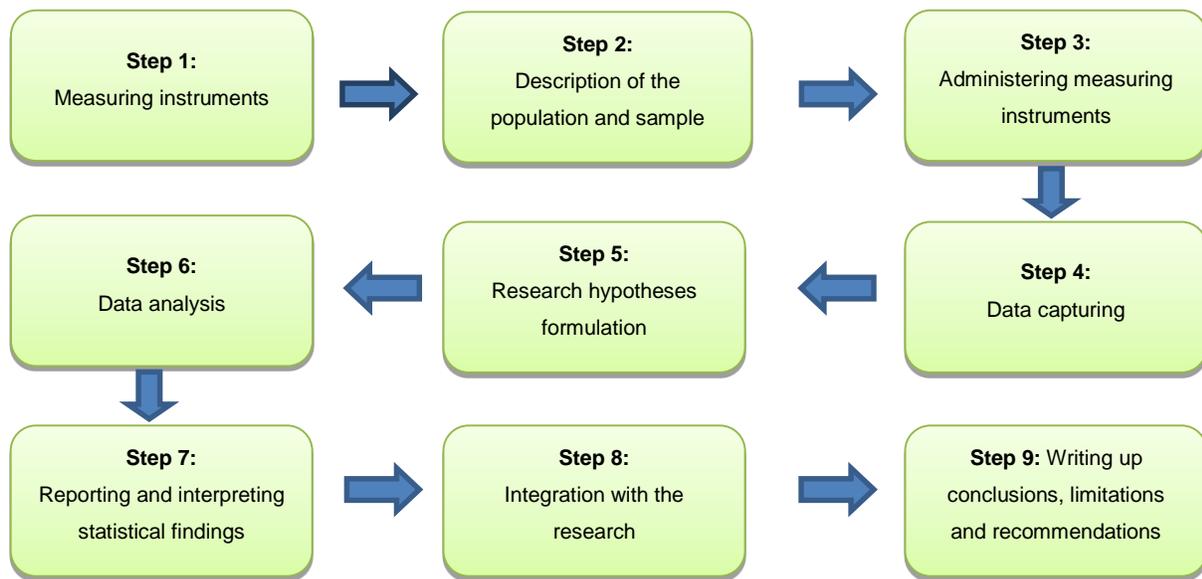


Figure 1.2. Outline of the research methodology process

### 1.8.1 Phase 1: The literature review

The literature review consisted of a review of sources of work stress, psychological attachment and attitudes towards change. The six steps outlined below each addressed the research aims highlighted in section 1.3.

**Step 1:** The aim was to conceptualise work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change in the 21<sup>st</sup>-century world of work. Research in the field of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change were critically reviewed and evaluated. The implications for organisational change interventions were also discussed.

**Step 2:** The aim was to conceptualise the work stress construct and how employees' biographical characteristics (age, gender, race and employment level) influence this construct. After the conceptualisation of work stress, a conceptual model including the biographical characteristics that influence it was highlighted to illustrate these constructs (principles and concepts) as discussed in the literature.

**Step 3:** The aim was to conceptualise the psychological attachment construct and how employees' biographical characteristics (age, gender, race and employment level) influence this construct. After the conceptualisation of psychological attachment, a conceptual model (including the influence of the biographical characteristics) was used to describe these constructs (principles and concepts), as discussed in the literature.

**Step 4:** The aim was to conceptualise the theoretical relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change and assess whether the integrated psychological profile constructed from the relationship dynamics inform organisational change interventions. This step related to the theoretical integration of the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.

**Step 5:** The aim was to outline the psychological profile for organisational change intervention practices. This step related to the construction of the psychological profile for change interventions, and implications for the management of change were also discussed.

### **1.8.2 Phase 2: The empirical study**

The empirical study was conducted at an FMCG company in South Africa, and the following steps were followed:

#### **Step 1: Choosing the measuring instruments**

The measuring instruments that intended to measure the constructs sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change included the following four:

- The Sources of Job Stress Scale developed by Coetzee and De Villiers (2010) to measure the sources of work stress construct
- The Organisational Commitment Questionnaire developed by Meyer and Allen (1997) to measure the construct of organisational commitment
- The Job Embeddedness Questionnaire developed by Mitchell et al. (2001a) to measure the construct of job embeddedness

- The Attitudes towards Change Questionnaire developed by Dunham et al. (1989) to measure the construct of attitudes towards change

**Step 2:** Description of the population and sample

The population comprised full-time employees working in one of the largest FMCG global companies that are geographically dispersed throughout Gauteng. A non-probability purposive sample of approximately 400 out of a population of 3 000 employees was targeted. The participants constituted 350 to 400 employees of different age, gender, race and employment levels (N = 350).

**Step 3:** Administration of measuring instruments and ethical considerations

This step involved the collection of data from the sample in the following way:

The researcher applied for ethical clearance from the University Research Committee. She also obtained permission from the Human Resource Manager and General Manager of the FMCG company involved. Once permission had been granted, the researcher distributed questionnaires to the sample of employees which were actually undergoing change. The employees were invited to participate voluntarily in the study by means of a participation invitation letter which was attached to the questionnaires. The covering letter also stated that completing and returning the questionnaires constituted agreement to use the results for research purposes only. In addition, in this letter, employees were informed that completing the questionnaire would be deemed to be informed consent.

All participants were assured of anonymity and confidentiality. Anonymity was guaranteed because participants were not asked to provide any identifying information. Confidentiality was also assured by clarifying to the participants that all completed questionnaires should be placed in a sealed box situated in the reception area of the organisation. The researcher collected the completed questionnaires from the box at different intervals.

#### **Step 4: Data capturing**

The participants' responses to each of the questionnaires were captured in an electronic database, which was then converted to an SPSS data file.

#### **Step 5: Research hypothesis formulation**

For the researcher to conduct the study, research hypotheses were formulated from the central hypothesis which was to be empirically tested.

#### **Step 6: Data analysis**

The statistical procedures appropriate for this research were as follows: *descriptive statistics* (means, standard deviations, Cronbach alpha coefficients, Rasch analysis for uni-dimensionality of measures, kurtosis and skewness and frequency data); *correlational analysis* (Pearson product moment correlations); and *inferential* (multivariate), *statistical analyses* (canonical correlation analysis, mediation modelling using structural equation modelling (SEM) techniques, hierarchical moderating regression analysis and the test for mean differences between age, race, gender and employment level); were performed (Hair et al., 2010). The data analysis process comprised three stages: (1) descriptive statistical analysis; (2) correlational analysis; and (3) Inferential and multivariate statistics. The data analysis procedures are discussed in more detail in chapter 5.

#### **Step 7: Reporting and interpreting statistical findings**

The results of the study were presented in the form of diagrams, table and graphs. The findings were presented in a systematic and logical framework to ensure that the interpretation was conveyed in an accurate and sensible manner.

### **Step 8: Integration with the research**

The findings of the literature review and the empirical research were integrated into the total findings of the research.

### **Step 9: Writing up conclusions, limitations and recommendations**

The conclusions were grounded in the results and integrated with the theory. The limitations of the research were also discussed. Recommendations were made inclusively as well as in terms of the empirical psychological profile for change interventions and future research.

## **1.9 CHAPTER LAYOUT**

The chapters in the study are set out as follows:

Chapter 1: Scientific overview of the research

Chapter 2: Meta-theoretical context: Organisational change and employee behaviour in the 21<sup>st</sup> century

Chapter 3: Sources of work stress

Chapter 4: Psychological attachment (this chapter includes a theoretical integration of the constructs of relevance to the research)

Chapter 5: The empirical research

Chapter 6: The research results

Chapter 7: Conclusions, limitations and recommendations

## **1.10 CHAPTER SUMMARY**

The background and motivation for the research, the aim of the study, the research model, the paradigm perspectives, the theoretical research, its design and methodology, the central hypothesis and the research method were discussed in this chapter. The motivation for this study was based on the fact that no known research has been conducted on the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change in a single study, and whether the relationship dynamics between these constructs can be used to construct a psychological profile for change interventions. This study endeavoured to evaluate and investigate critically, based on sound research methodology, the relationship dynamics between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change, and examine how the elements of the overall constructed psychological profile inform change interventions in the FMCG work context. This study also aimed to investigate whether employees' biographical characteristics (age, gender, race and employment level) significantly moderate the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.

Chapter 2 addresses research aim 1 and discusses organisational change and employee behaviour in the 21<sup>st</sup> century from a meta-theoretical perspective. Research aim 1.3 (to conceptualise the attitudes towards change construct and explore the effects of employees' biographical characteristics, namely age, gender, race and employment level) will also be explored.

## **CHAPTER 2: META-THEORETICAL CONTEXT: ORGANISATIONAL CHANGE AND EMPLOYEE BEHAVIOUR IN THE 21ST CENTURY**

**Keywords:** Organisational change, change management, retention, attitudes towards change, employee behaviour

The aim of this chapter is to provide an outline of the meta-theoretical context that forms the definitive precinct of the research. This chapter focuses specifically on the construct of change and individuals' attitudes towards change. Employees face a number of challenges (uncertainty, job insecurity, changes in job role, pressure on the employee to upskill, work overload, unstable relationships and poor work autonomy) in the fastpaced and changing work environment (Agrawal, 2012; Coetzee & De Villers, 2010; Rothmann, 2014; Rothmann, Diedericks, & Swart, 2013). This relationship between employees and the FMCG work environment creates the desire to develop psychological profiles for change interventions that will assist employees' to reflect on their meta-competencies as key resources in sustaining their employability, especially during times of change (Coetzee, 2008; Coetzee, 2014). The trends mentioned above require an understanding of the world of work in the 21<sup>st</sup> century in contrast to change, employee behaviour and variables influencing attitudes towards change, which may, in turn, potentially inform change management and retention strategies. Lastly, organisational challenges in terms of attitudes towards change are explored here too.

### **2.1 ORGANISATIONAL CHANGE IN THE 21<sup>st</sup>-CENTURY WORKPLACE**

Organisational change has evolved significantly over the years and the pace of change has accelerated in most organisations (Baruch, 2004; Thomas & Hardy, 2011). Organisational change can be defined as the movement of an organisation away from its current state, towards some desired future state in order to increase its effectiveness (Blankstein, 2010; Creemers, 2011; Lunenburg, 2010; Smylie, 2010). Organisational change can be classified into four types, namely incremental, strategic, planned and unplanned. These four types of change are discussed below.

### **2.1.1 Incremental change**

According to De Wit and Meyer (2010), incremental change can be defined as fine-tuning changes where existing organisational processes are upgraded, activities are improved and employees are reassigned in terms of organisational structure or reporting lines. The key aim is to improve performance of the organisation but within the confines of the existing system. In addition, although the impact of changes can be significant, they only affect some areas of the organisation with the aim of accomplishing specific improvements. Incremental changes are appropriate for organisations that require negligible strategic realignment. Moreover, organisations that already meet the demands of key stakeholders for sustainable practices can encourage incremental changes to keep the organisation aligned with customers' expectations (Dunphy, Benn, & Griffiths, 2003; Fink, Lang, & Harms, 2011).

According to Weick (2007), incremental changes help organisations to achieve small wins. A small win can be defined as a concrete, complete, implemented outcome of moderate importance. Small wins signify controllable opportunities that produce visible results (Weick, 2007). Lastly, incremental changes usually have smaller traumatic effects on employees since the transition from the "as is" state to the "to be" state takes place at a slower pace than with other types of changes (Choi & Ruona, 2011).

### **2.1.2 Strategic change**

Strategic change has a much larger impact on the organisation. A strategic change usually alters the way the organisation does business. Strategic change is also referred to as transformational or radical change and this affects the organisation's mission, strategy, leadership and culture (Burke & Litwin 1992; Lewis, 2011). Further, strategic changes are elicited by external factors that force the organisation to change on a larger scale. The impact of strategic change on employees is therefore much larger. This type of change usually has more traumatic effects on employees because the magnitude of the change is greater (Lines, 2004; Raineri, 2011).

### **2.1.3 Planned change**

The objective of planned change is usually positive. Planned changes are based on the deliberateness of the organisation. The organisation makes a decision to take steps to move from the “as is” state to the “to be” state. One of the aims of planned change could be to obtain previously unattainable goals or to achieve them more efficiently or effectively (Burnes, 2004; Freeman, 2010; Friday & Friday, 2003).

### **2.1.4 Unplanned change**

Unplanned change usually happens in response to external drivers such as market forces, economic crises, social changes or economic opportunities. Unplanned changes are not typically intended by organisations since they usually occur spontaneously or randomly (French, Rayner, Rees, & Rumbles, 2008; Mahoney & Thelen, 2010). To manage unplanned change it is recommended that the organisation act as soon as the change is identified in order to minimise negative employee and organisational impacts (French et al., 2008). Because unplanned change tends to be disruptive, an organisation should have a contingency plan in place (French et al., 2008; Mahoney & Thelen, 2010).

In contrast to the above-mentioned categories of organisational change, the FMCG work environment is typically characterised by *strategic*, *planned* and *unplanned* change where the organisation must constantly adapt to external forces in order to remain relevant, efficient and effective (Erin, 2010). These external forces (key drivers of change) have wide implications for the management of employees at work, specifically with regard to change management, which will be elaborated on in the section below. Table 2.1 summarises the key drivers of change in the 21st century.

Table 2.1

*Key Drivers of Change in the 21st-century Workplace*

Key driver	Reference
Increased globalisation	Richardson (2000)
The application of advanced managerial strategies (acquisitions, mergers, downsizing and restructuring)	Blickle and Witzki (2008); Burke and Ng (2006)
New technology	Amundson (2006); Sullivan (1999)
Revolution from industrial to information societies	Amundson (2006)

Richardson (2000) investigated the influence of *globalisation* in the 21st century and found that globalisation presents both opportunities and threats for the employee in the workplace. An example of a threat is the increasing competition in the FMCG work environment. The increase in competition has been found to decrease employment opportunities and job security for the employee, because organisations are constantly exploring new ways of working to drive efficiency and effectiveness (Webster, Lambert, & Bezuidenhout, 2011).

Change managers therefore need to be constantly aware of globalisation trends in the FMCG environment and adapt change management in the organisation accordingly. For example, if there is a reduction in employment opportunities, the business case and potential risks to employees must be communicated upfront, allowing them to plan accordingly (Lewis, 2011). Communication is critical in a change management process and has the power to determine whether or not employees will buy into the changes being made (Jones, 2010).

Furthermore, Blickle and Witzki (2008) and Burke and Ng (2006) refer to the *application of advanced managerial strategies* such as downsizing, mergers, acquisitions and restructuring as other key driving forces of change in the 21st-century workplace. These forces may drive employment reduction or create more employment opportunities in the organisation (Fink et al., 2011). Despite a reduction or increase in employment opportunities, implications to the employee must be at the forefront of the change manager's agenda in order to successfully implement change (Blickle & Witzki, 2008).

Amundson (2006) and Sullivan (1999) acknowledge globalisation, *new technology* and the *shift from industrial to information societies* as key driving forces of change in the 21st-century workplace. This inevitably requires employees to change and adapt to new systems, processes and ways of working (Beetham & Sharpe, 2013; Christensen & Schneider, 2010; Denning, 2010; Vacharkulksemsuk, Sekerka, & Fredrickson, 2010).

The key driving forces of change identified and discussed above reflect the radical changes that have occurred in the world of work in the 21st century, which have subsequently impacted on the organisation and the employee. From an *organisational perspective*, organisational structures have become more streamlined (aligned to a global model), support departments are centralised (to avoid duplication of effort), fewer people are employed to take on additional tasks, and extensive reviews of employee capabilities are performed (aligned to the achievement of the organisation's strategic goals). These changes at an organisational level are intended to drive the enhancement of productivity, the ability to increase competitiveness in the market and the overall quest for more profit in the organisation (Norback & Persson, 2008; Janavaras, Kuzma, & Thiewes, 2011).

### **2.1.5 Change from the employee's perspective**

From an *employee perspective*, there is ongoing uncertainty, job insecurity, change in job roles and responsibilities, pressure on the employee to upskill and work overload, which affect relationships and reduce autonomy (Carter, Armenakis, Feild, & Mossholder, 2013; Vakola & Nikolaou, 2005). The factors outlined in the previous paragraph pose a challenge for organisational psychologists because they need to manage their own emotions in the change process, while remaining effective business partners and advisors to the employee (Ogg, 2011; Vakola, Tsaousis, & Nikolaou, 2004). Organisations should therefore also expect impacts on performance during this period of change. Studies conducted by Baumol, Blinder, and Wolff (2003), Cappelli (2003), Sitlington and Marshall (2011), Syverson (2010) and Wilkinson (2005) corroborate this view and found that productivity (output per worker) declines during and after restructuring.

Moreover, in the case of retrenchment, there is increasing pressure on the employee to secure new employment (prepare for interviews and assessments) within a short period of time, while having to perform daily outputs at the current organisation, as employees are required to serve notice periods. This poses a challenge for employees. A study conducted by Waters (2007) supports this view and showed that retrenched employees reported higher depression, lower organisational commitment, higher perceived job insecurity and lower perceived re-employment quality.

Accordingly, all of these factors create work stress for employees, because they are expected to adapt and function as usual (Chandola 2010; Xaba, 2012). *Change management* in the organisation thus becomes critical to better equip both the organisation and its employees to deal with changes (Raineri, 2011). The current research was interested in conceptualising the sources of work stress and psychological attachment (organisational commitment and job embeddedness) of employees as well as investigating their attitudes towards change in the 21st century. This chapter focuses specifically on the construct of change and individuals' attitudes towards change. According to research, change is concerned with making things different, and change management, supported by change interventions, involves planned actions to enhance organisational efficiency and effectiveness (Cameron & Green, 2012; Robbins, 1993). However, employee resistance can be a significant constraining factor to effective change management because organisational change often generates scepticism and resistance in employees, making it difficult to implement (Choi & Ruona, 2011; Folger & Skarlicki, 1999). One way to overcome scepticism and resistance is to ensure effective communication, where employees feel more involved in the process and are more likely to feel engaged. Research studies conducted by Sonenshein (2010) and Weiner (2009) support this view and refer to Lewin's three-step change model to ensure a successful change management process (Burnes, 2004; Schein, 1996).

The three steps of Lewin's model are discussed below as indicated in Figure 2.1.

#### 2.1.5.1 Step 1: *Unfreeze*

Step 1 is based on preparing the organisation to accept that the proposed change is necessary. Achieving this objective comprises communicating the status quo in order to assist employees to see the rationale for the desired or proposed state.

One of the best ways to achieve this objective is to show evidence that points to the need for change. The key factors that need to be challenged in this step are at the core of the organisation, such as employee beliefs, attitudes and behaviours. Focusing on employee motivation in this step then becomes crucial (Jones, 2010).

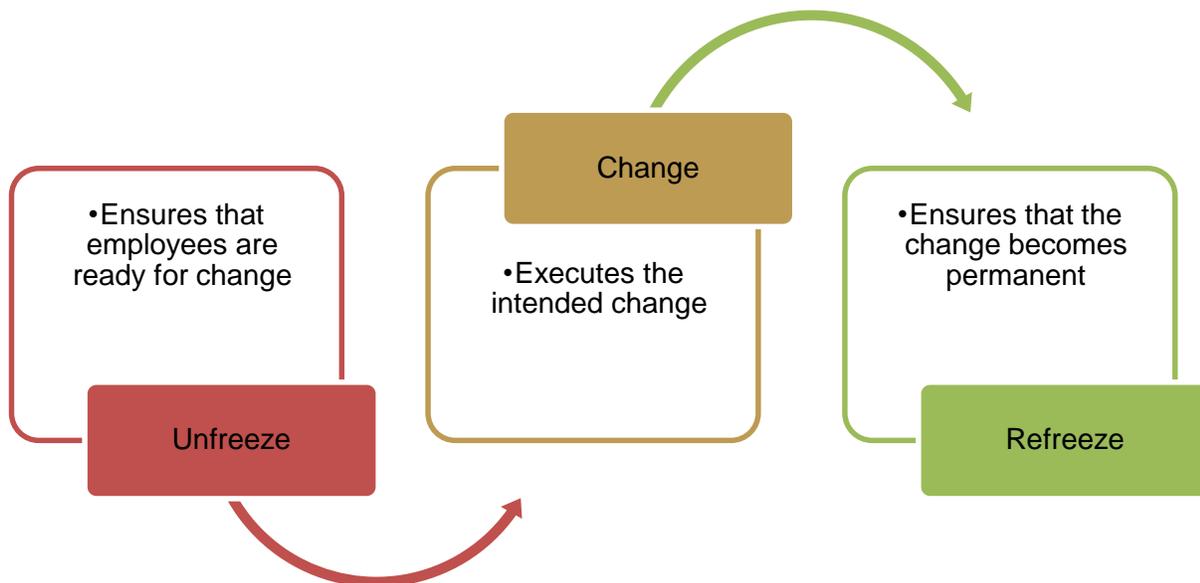


Figure 2.1. Lewin's three-step change management model (Schein, 1996, p. 27).

#### 2.1.5.2 Step 2: Change or transition

In the change step it is important to realise that change requires time. Often change managers spend a lot of time planning change, but when they decide to implement it they expect employees to change at a fast pace. Below, some useful practices that need to be considered during this phase are outlined (Jones, 2010):

- challenging employees to achieve greater goals by showing confidence in their capabilities;
- being alert to employees' reactions so that support can be provided if they are having a difficult time accepting change;
- making the first step of the change process the easiest one to attain, since the hardest task is to begin the change, small victories can boost motivation to keep going with the change;

- gaining employee participation can make the difference between success and failure since it builds commitment and shows concern for employees' opinions; and
- managing employees by objectives, which means setting goals that the organisation wants them to achieve, gives them the freedom to choose the way they think they can better attain goals (Jones, 2010).

### 2.1.5.3 Step 3: Refreeze

In step 3, the objective is to reach stability again. Refreezing is positive for the organisation since it increases efficiency of the new processes that have been established. Some of the practices that can help with refreezing include the following (Jones, 2010):

- providing evidence and demonstrating to employees that change has happened in a successful way and benefits the organisation;
- avoiding going back to old processes or systems – for example, if new software was implemented it would be a better option to delete the old software to avoid temptation for employees to use it; and
- using a reward system to enhance team work and drive desired employee outputs also drives employee motivation (Jones, 2010).

Organisations are constantly faced with having to managing change. Preparing a business case that properly articulates the benefits of the change may influence the change in a positive way. Employees will be able to see the benefits of the change and they may thus be more likely to experience lower levels of work stress, have greater commitment to the change and develop positive attitudes towards the change (Burnes, 2010; Vakola & Nikolaou, 2005). Therefore step 1 (unfreeze) in Lewin's change management model is crucial. Setting goals that are aligned to the change are important, as employees will need clear direction. Training is essential to develop the required capabilities aligned to the change. These elements (goals and training) are paramount in step 2 of Lewin's model of change as employees will be less stressed, have higher commitment and positive attitudes towards the change (Burnes, 2010; Vakola & Nikolaou, 2005). Refreezing the change, step 3 of Lewin's change management model, is vital in order to make the change part of current processes.

Using reward systems to incentivise employees that adhere to new processes will be one way to motivate employees, reduce their stress and gain commitment and positive attitudes towards change (Burnes, 2010; Vakola & Nikolaou, 2005). Moreover, research has shown that an effective change management model yields positive benefits for the organisation such as moving it forward from the status quo, allowing it to become more efficient and effective (Cameron & Green, 2012; Griffin & Moorehead, 2011; Paton & McCalman, 2008; Thomas, Sargent, & Hardy, 2011).

## **2.2 CHANGE AND EMPLOYEE BEHAVIOUR**

As noted in the literature, organisational change has been taking place at a rapid pace in the 21st-century FMCG work environment. This has resulted in significant changes in the nature of work, which have led to increased work stress for employees (Dahl, 2011; Dua, 1996; Fisher, 1994; Van den Heuvel et al., 2010). Research has found that high levels of work stress experienced by employees result in many problems such as lower motivation, productivity, absenteeism, turnover and a range of other employee behavioural and health problems, such as alcoholism, drug abuse and cardiovascular problems (Cooper & Cartwright, 1997; Crawford, LePine, & Rich, 2010; Lerner et al., 2010).

In addition, the results of a study conducted by Vakola and Nikolaou (2005) confirm a relationship between work stress and attitudes towards change. This relationship seems plausible because *behaviour* generally refers to actions of the person in relation to the environment (Lau & Woodman, 1995). In accordance with the Dunham et al. (1989) model of attitudes towards change, the three dimensions of what people think (cognitive), feel (affective) and do (behavioural), holistically inform employers how employees will react or behave in the face of the change being implemented. Almost all work stressors (uncertainty, job insecurity, changes in job role, pressure on the employee to upskill, work overload, unstable relationships and poor work autonomy) are related to negative attitudes to change and subsequently employee resistance to change. Stress created by bad work relationships, overload and unfair pay and benefits can cause negative attitudes towards change, thus inhibiting change management. More specifically, lack of a socially supportive work environment is found to be the strongest predictor of negative attitudes towards change (Vakola & Nikolaou, 2005). Job insecurity has also been found to be an obstacle to organisational change.

Some research studies have shown that presenteeism may be another major factor that has a negative impact on productivity as employees are “working sick” (Hemp, 2004; Jones, 2010; Miodonski, 2004; Ruez, 2004). Presenteeism can be defined as the time lost by employees who are at work, but are unable to perform their duties because of health conditions (Hemp, 2004; Miodonski, 2004; Ruez, 2004). Ruez (2004) found that one of the key drivers of presenteeism is work stress. Presenteeism therefore seems to be a prevalent problem for organisations during organisational change.

Moreover, the psychological attachment (organisational commitment and job embeddedness) of employees is deemed to be a vital factor for consideration when managing organisational change because psychological attachment has been shown to be a mediator to sources of work stress (Bennett & Durkin, 2000; Mitchell & Lee, 2001). Siu (2002) lends support to this view and shows that psychological attachment interacts with sources of work stress to determine its outcomes. Job embeddedness may assist an employee during change. Organisational change usually imposes shocks on the employee, but job embeddedness causes the employee to pause and think about the meaning or implication of the change in relation to his or her job.

This may in fact assist the employee in being retained in the organisation, despite the uncertainty of the change (Lee & Mitchell, 1994). Thus psychological attachment helps the employee to remain protected from the negative effects of work stress, because it enables him or her to see direction and attach meaning to work (Bennett & Durkin, 2000). In addition, other studies have shown that employees who experience lower levels of psychological attachment are more frequently absent than those with higher levels of psychological attachment (Cohen, 1991; Sagie, 1998; Ng & Feldman, 2010). Work stress and psychological attachment thus pose as critical variables to be considered in FMCG work environments during times of organisational change.

### **2.2.1 Resistance to change**

Furthermore, it should be noted that employees react in diverse ways when faced with organisational change (Bovey & Hede, 2001; Coetsee, 1999; Smollan, Sayers, & Matheny, 2010). The psychological approach states that people go through a reaction process or resist organisational change. Jaffe and Scott (1998) identify four stages in resistance to change, as shown in Figure 2.2 below.

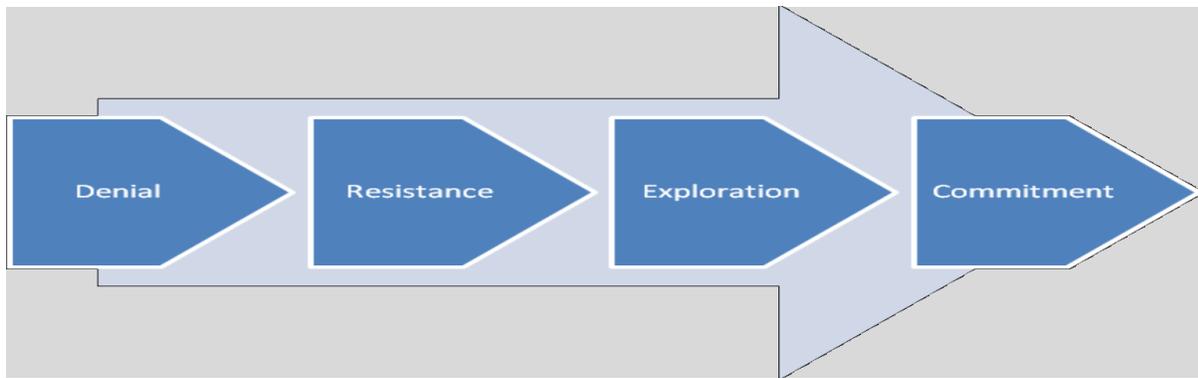


Figure 2.2. The four stages in resistance to change (a psychological approach) (Scott & Jaffe, 1988, p. 26)

#### 2.2.1.1 Denial

Denial is typically the employee's first response when faced with organisational change. Employees think that it is impossible that the situation is happening to them. The most prevalent mutual feelings associated with this stage are negation and apathy (employees avoid the topic as much as possible and act as if nothing novel is happening). At this stage, employees act as if things will go on and stay the same as always (Agocs, 1997; Jones, 2010; Scott & Jaffe, 1988).

#### 2.2.1.2 Resistance

In the second stage, employees have disagreements and feel disillusioned and discouraged. Moreover, they may show anger at the organisation, believe that the task is impossible to accomplish, feel overwhelmed and depressed and refuse to cooperate. In some cases, they do not overtly express their disagreement, but instead work against the change in the background (Jones, 2010).

#### 2.2.1.3 Exploration

During this stage, employees start to look towards the future, evaluating the possibilities and opportunities from changing. They start to think about the change as an opportunity and not as a threat. High levels of energy and excitement are often encountered during this step. However, confusion and frustration can also be present because there is too much to do or think about (Jones, 2010).

#### 2.2.1.4 *Commitment*

In the last stage, employees may become engaged and focused. It should be noted that the pace at which employees move from one stage to another is different. This is because they perceive organisational change differently – hence their willingness to accept change will also be dissimilar (Carnall, 1986; Darling, 1993; Jones, 2010). From a psychological perspective employees also have defence mechanisms they use when transitioning through the four stages of resistance to change.

These defence mechanisms may protect them from sources of work stress. However, a problem may arise because these ways of dealing with sources of work stress can prevent employees from changing since they withdraw attention from the main tasks at hand, rendering the process of change ineffective (De Board, 1983; Kramer, 2010). Furthermore, these defence mechanisms are regarded as unconscious processes that are developed when habitual thoughts, feelings or behaviours in the sub-conscious conflict with new intentions, feelings or thoughts in the conscious mind (De Board 1983; Kramer, 2010). The defence mechanisms are summarised in Table 2.2 below.

Table 2.2

*Summary of Employee Defence Mechanisms during Organisational Change*

<b>Defence mechanism</b>	<b>Description</b>
Humour (adaptive)	An individual deals with internal/external stressors by emphasising amusing and ironic elements.
Anticipation (adaptive)	An individual deals with internal/external stressors by experiencing or anticipating consequences and emotional reactions in advance and considering realistic alternative responses or solutions.
Denial (maladaptive)	An individual deals with internal/external stressors by refusing to acknowledge some painful aspects of external reality or subjective experience that are apparent to others.
Dissociation (maladaptive)	An individual deals with internal/external stressors with a breakdown in the usually integrated functions of consciousness, memory, perception of self or the environment.
Isolation of affect (maladaptive)	An individual deals with internal/external stressors by separating ideas from the feelings originally associated with them. The individual loses touch with the feelings associated with a given idea while remaining aware of the cognitive elements.
Projection (maladaptive)	An individual deals with internal/external stressors by falsely attributing to another their own unacceptable feelings, impulses or thoughts.
Acting out (maladaptive)	An individual deals with internal/external stressors by actions rather than reflections or feelings and includes transference which is the recreation in present relationships of experiences from earlier childhood relationships.

As indicated in the Table 2.2, there are seven defence mechanisms of which two are considered adaptive (humour and anticipation) and five are counted as being maladaptive (denial, dissociation, isolation of affect, projection and acting out). Bovey and Hede (2001) tested the relationship between the different mechanisms and the degree of resistance to change. The results of their study show that maladaptive mechanisms are linked to higher levels of resistance to change, while employees with adaptive mechanisms exhibit lower levels of resistance. Moreover, employees who are habituated to use *adaptive mechanisms* such as humour as a way to contest anxiety or stressful situations show lower intention to resist changes. This is because using humour allows employees to cope with problems in a constructive way (Dixon 1980; Van den Heuvel et al., 2010).

In terms of *maladaptive mechanisms*, projection is more detrimental to employees in terms of coping with organisational change. Projection consists of a process where the psyche deceives itself into believing that the cause of anxiety and work stress is located somewhere else (De Board, 1983). Since the employee considers the causes of anxiety or sources of work stress as external, he or she is going to resist them (in this case the change process). Leaders therefore need to be aware of the role that human behaviours play in the change process in order to minimise resistance to change (Van den Heuvel et al, 2010). In addition, resistance to change can manifest itself as overt or covert. Overt resistance to change reveals itself in strikes, reduced productivity, inferior work and even sabotage. However, covert resistance to change is often conveyed by high levels of work stress, increased tardiness, absenteeism, requests for transfer, resignation, lower morale and decreased motivation and productivity (Coetzee & Stanz, 2007; Hellriegel, Slocum, & Woodman, 2001; Thomas & Hardy, 2011).

Resistance to change has been recognised as a critically important factor that can influence the outcome of any organisational change (Choi & Ruona, 2011; ProSci, 1998). Research indicates that resistance to change is a little-recognised but critically important contributor to the failure of organisational change (Oreg & Sverdlik, 2011). Resistance to change can be identified as the employee's response (behaviour) to organisational changes. Furthermore, resistance is employee behaviour that seeks to challenge, disrupt, stop, reroute or invert prevailing assumptions, discourses and power relations (Folger & Skarlicki, 1999; Oreg & Sverdlik, 2011; Van Tonder 2004). Resistance to change, however, does not wait for change management to be implemented before it shows itself. The instant there are indicators of organisational change, resistance to change will show itself in one or many ways (Kreitner & Kinicki, 2004; Peccei, Giangreco, & Sebastiano, 2011).

Employees view and react to organisational change in different ways. Some employees embrace change and see it as a challenge, while others view it with mistrust and fear (Vakola & Nikolaou, 2005). According to research, employees at different levels in the organisation react to organisational change differently (Stensaker & Meyer, 2011). Some studies indicate that organisational change efforts to redefine jobs or even outsource functions subsequently mean replacing highly skilled or experienced workers with lower-skilled employees or fewer employees, and may increase the likelihood of resistance in the organisation (Levine, 2012; Young, 2000). The resistance experienced in the organisation may be more prevalent among managers (Young, 2000).

Some research has lent support to this view and has stated that there is a misconception that managers do not resist change and that resistance only comes from “on the ground” employees. Resistance to change by middle managers is often identified as a major execution barrier (Appelbaum, St-Pierre, & Glavas, 1998; Levay, 2010; Thomas & Linstead, 2002). Resistance to change is not a one-dimensional notion. It is equally important to understand the different dimensions of resistance, namely *who* will resist change and *how* change is resisted (Stensaker & Meyer, 2011). Research by Govender, Moodley, and Parumasur (2005), Stewart and Kringas (2005), Szamosi and Duxbury (2002) and Steiner (2010) reported that the real problem with resistance to change is that managers do not understand what the obstacles to change are and where they manifest in an organisation. Subsequently, if this is not thoroughly understood and planned for, management of organisational change will be poor and therefore instantaneously decrease the likelihood of implementing successful change.

## **2.2.2 Strategies to overcome resistance to change**

Research by Anderson (2011), Duke (2011) and Harvey (2010) focuses on a number of unambiguous ways that resistance to change may be overcome. Six of the most prevalent and commonly used approaches to overcoming resistance to change (education and communication, participation and involvement, facilitation and support, negotiation and agreement, manipulation and co-optation and explicit and implicit coercion) will be discussed below.

### *2.2.2.1 Education and communication*

Resistance to change can be reduced when leaders communicate with employees to help them see the need for change and the logic behind it. This can be attained through face-to-face discussions, formal group presentations or special reports and publications. Trust is another key factor, and if it does not exist, the change is unlikely to succeed (Anderson, 2011; Duke, 2011; Harvey, 2010).

#### *2.2.2.2 Participation and involvement*

Employees who participate in planning and implementing a change are less likely to resist it. Prior to implementing a change, leaders can allow those who oppose the change to express their views on it, indicate potential problems and suggest revisions. Such participant involvement can reduce resistance, obtain organisational commitment and increase the quality of the change decision (Anderson, 2011; Duke, 2011; Harvey, 2010).

#### *2.2.2.3 Facilitation and support*

It is essential for leaders to manifest supportive and facilitative leadership behaviours when change is being implemented. This type of leadership behaviour includes listening to employees' ideas, being approachable and using the ideas that have merit. Supportive leaders go out of their way to make the work environment more pleasant and enjoyable. For example, difficult changes may require employee development to acquire new skills necessary to implement the change. Such training will likely diminish resistance to change (Anderson, 2011; Duke, 2011; Harvey, 2010).

#### *2.2.2.4 Negotiation and agreement*

Leaders can neutralise actual resistance by providing incentives for cooperation. For example, during collective bargaining between the employer and various employee unions, certain concessions can be given to employees in exchange for support of a new programme desired by the organisation. Such concessions may include salary increases, bonuses or more union representation in decision making. Leaders can also use standard rewards such as recognition, increased responsibility, praise and status symbols (Anderson, 2011; Duke, 2011; Harvey, 2010).

#### 2.2.2.5 *Manipulation and co-optation*

*Manipulation* occurs when leaders choose to be discriminatory about who gets what information and how much information, how accurate the information is, and when it is disseminated to increase the chance that change will be successful. *Co-optation* involves giving the leaders of a resistance group (e.g. other staff members who represent their work group) a key role in the change decision. The leaders' advice is sought, not to arrive at a better decision, but to obtain their endorsement. Both manipulation and co-optation are inexpensive ways to influence potential resisters to accept organisational change (Anderson, 2011; Duke, 2011; Harvey, 2010).

#### 2.2.2.6 *Explicit and implicit coercion*

When other approaches have been unsuccessful, coercion can be used as a last resort. Some organisational changes require immediate implementation and change initiators may have considerable power. Such instances lend themselves more readily to the use of coercion to gain compliance with proposed changes. Employees can be threatened with job loss, decreased promotional opportunities, salary freezes or job transfers. There are, however, negative effects of using coercion, including frustration, fear, revenge and alienation, which in turn may lead to poor performance, dissatisfaction and staff turnover (Anderson, 2011; Duke, 2011; Harvey, 2010).

Strategies to overcome resistance to change are particularly important to determine the success of the change. Moreover, these strategies (education and communication, participation and involvement, facilitation and support, negotiation and agreement, manipulation and co-optation, explicit and implicit coercion) may also affect an employee's work stress, organisational commitment and attitude towards change (Anderson, 2011; Duke, 2011; Harvey, 2010; Vakola & Nikolaou, 2005). For example, if the change practitioner has not communicated the reasons for the change or how the change will affect employees; employees will be likely to experience high levels of work stress, low levels of organisational commitment and negative attitudes towards the change (Vakola & Nikolaou, 2005). In terms of participation and involvement, if employees have had some input into the planning of the change implementation, they will be more likely to buy into the change and experience low levels of work stress, higher levels of organisational commitment and positive attitudes towards the change.

All of the above-mentioned approaches therefore need to be carefully considered in the change management process.

## **2.3 VARIABLES INFLUENCING ATTITUDES TOWARDS CHANGE**

In the context of organisational change, there are psychological (cognitive, affective interpersonal) and biographical variables (age, gender and race) that influence an employee's attitude towards change, and these impact on the employee's well-being, behavioural adaptability and adjustment to change, as indicated in Figure 2.3 below.

### **2.3.1 Psychological variables influencing attitudes towards change**

Psychological variables (cognitive, affective and interpersonal) have been shown to influence an employee's attitudes towards change (Lau & Woodman, 1995). At a *cognitive level*, the way employees think about the change process is important because their cognitions will inform feelings and behaviour, respectively. Research has lent support to this view and has shown that an employee determines change through his or her perceptual filters of how to react to the change. For example, if an employee thinks and perceives that change will bring benefits to the organisation, he or she will be more likely to support the change, and adapt or adjust to it (Chiang, 2010; Lau & Woodman, 1995). Conversely, if the employee perceives the change as a threat in any way, he or she will resist it (Anghelache & Bențea, 2012; Fugate, Prussia, & Kinicki, 2012; Kursunoglu & Tanriogen, 2009). Moreover, employees who perceive the change as meaningful and beneficial will believe that it benefits employees and will increase their work efficiency. Figure 2.3 below illustrates the psychological (cognitive, affective and interpersonal) and biographical variables (age, gender and race) that influence an employee's attitudes towards change.

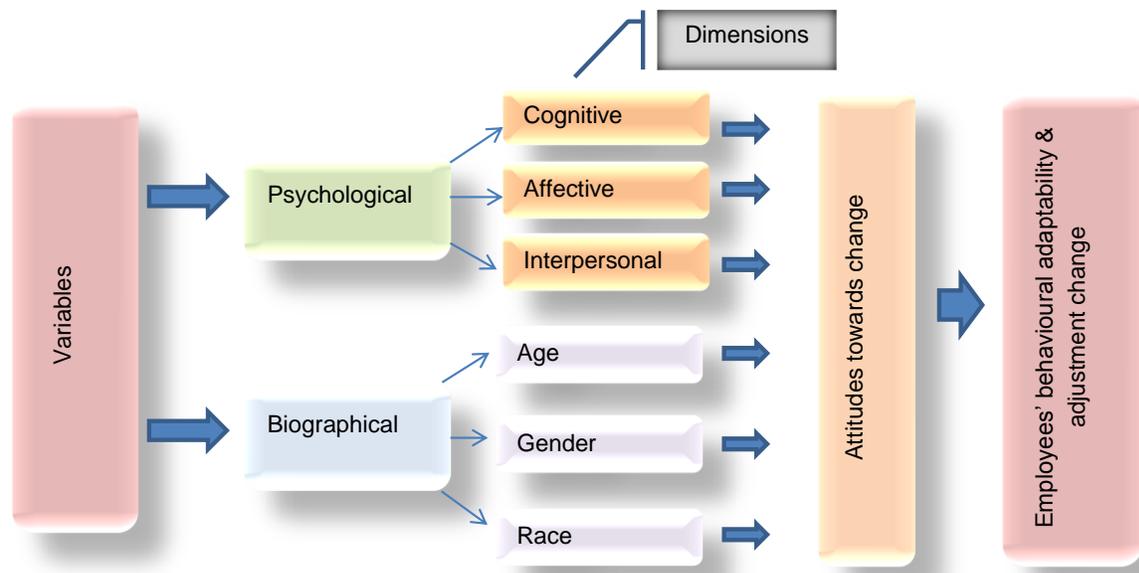


Figure 2.3. Variables influencing attitudes towards change

However, for employees who do not perceive change as beneficial or anticipate work improvements in terms of efficiency, their beliefs about the change will be contradicted at the cognitive level. Research has shown that this could be attributed to inadequate change communication, low change participation and limited change knowledge and experience (El-Farra & Badawi, 2012). This finding is supported by previous theory and research, such as that of Piderit (2000), who asserted that ambivalent attitudes towards change could occur within the cognitive dimension and attributed to poor change communication.

At an *affective level*, the way in which an employee feels about the change process is also significant. An employee's feelings about change have been acknowledged in the literature as a determining factor in the outcome of organisational change (Kassim & Abdullah, 2011; Smollan et al., 2010). Research has shown that employees who exhibit feelings of happiness, excitement and hope are assigned positive perceptions of organisational change in relation to their expectations. It was thus concluded that when employees' appraise the outcome of an organisational change as positive, this will create pleasant feelings. Conversely, when employees hold negative feelings of sadness, anger, fear or frustration because they perceive an adverse impact of change on their jobs, it is expected that they would show a non-supportive attitude to organisational change (El-Farra & Badawi, 2012).

These findings are consistent with research by Smollan (2013) which confirms that organisational change is an emotional event, and that feelings arise from a host of factors that have individual and contextually wider origins. Lastly, the way an employee feels will determine the phase he or she finds himself or herself in, in terms of resistance to change (denial, resistance, exploration and commitment). It will also determine the defence mechanisms the employee may use (Kramer, 2010).

Moreover, the feelings an employee has towards change will determine behaviour at an *interpersonal level*. Behaviour of employees during organisational change is critical. For example, if an employee behaves in a way that opposes the change, the organisation will find it more difficult to manage the change. Research has shown that employees who exhibit positive behaviours towards change, will comply with and support the change, thus showing acceptance. This can be attributed to employees' perception about the benefits of change and the low impact it will have on their jobs. Employees in this instance will also have positive feelings about the change (El-Farra & Badawi, 2012; Fugate et al., 2012). By contrast, Bovey and Hede (2001) in their behavioural-intentional matrix (which relates to the conative, motivational element) found that employees who felt positive towards change were more likely to display moderate covert positive behavioural intentions. However, employees who felt negative towards change were more likely to display moderate overt behavioural intentions to oppose the change. Thus the psychological variables discussed above will influence the employees' behavioural adaptability and adjustment to the change. Shah and Irani (2010) also indicated that robust peer and supervisor relationships are strongly correlated to positive attitudes towards change. They recommend that change managers should take this into account when managing organisational change.

### **2.3.2 Biographical variables influencing attitudes towards change**

*Biographical variables* (age, gender, and race) in relation to attitudes towards change will be discussed below.

### 2.3.2.1 *Age*

In terms of age, research has shown that older employees may be more likely to support change as they probably have the necessary tenure to understand the benefits that organisational change will bring (Yilmaz, Ozgen, & Akyel, 2013). However, other research has shown that older employees may also in fact resist change as it implies change at a personal level for them, which may be life altering (Niessen, Swarowsky, & Leiz, 2010). Interestingly, research by Vakola and Nikolaou (2005) reported no correlation between age and attitudes towards change.

### 2.3.2.2 *Gender*

In relation to gender, research has shown that males, compared to females, may resist change and adopt negative attitudes towards it (Vakola & Nikolaou, 2005).

### 2.3.2.3 *Race*

In terms of race and the influence on attitudes towards change, there is no study noted in the South African FMCG work context that has explored this relationship pragmatically. However, from an observation perspective, there seem to be no differences between attitudes towards change and race in the selected organisation. However, this relationship was further explored in this study.

It is clear from the literature that psychological variables (cognitive, affective and interpersonal) can affect an employee's attitudes towards change. Hence the psychological variables during a change process need to be carefully considered as an employee's attitudes towards change will determine the success of the change (Vakola and Nikolaou, 2005). Literature has noted that the psychological variables (cognitive, affective and interpersonal) and an employee's attitudes towards change are seldom considered in the change process and this indicates a gap in current research (Vakola & Nikolaou, 2005). Moreover, biographical variables (age, gender and race) and their relationship to attitudes towards change indicate a gap in the current literature, and this relationship was further explored in this study.

## **2.4 FACTORS INFLUENCING EMPLOYEES' ATTITUDES TOWARDS CHANGE**

During the organisational change process, employees' attitudes towards change are crucial. Attitudes towards change can be described on a continuum ranging from strong positive attitudes (readiness for change) to strong negative attitudes (resistance to change), and it is then expected that attitudes towards change will be a determining factor for the organisational change outcome, and more so will inform the challenges the organisation is faced with (Bouckenooghe, 2009; Choi, 2011; El-Farra & Badawi, 2012; Piderit, 2000). Hence employees' attitudes towards change can present themselves as challenges to the organisation in a significant way. Attitudes towards change (cognitive, affective, behavioural and interpersonal) are strongly influenced by factors pertaining to the organisation's *change content*, *change context* and *change process* as well as *individual attributes*, as depicted in Figure 2.4 below.

### **2.4.1 Change content (threat appraisal)**

The response of employees to organisational change may be influenced by how the change, specifically the content of the change, could affect or threaten their lives. Threat appraisal can be defined as the employee's concern over future negative or destructive losses (Holt, Armenakis, Field & Harris, 2007). In the milieu of organisational change, threat appraisals are related to both the affective and behavioural components of attitudes towards change. For example, appraisals of a restructure in the organisation are likely to predict negative emotions for the employee, especially when the change manager does not communicate the impact to the employee (Fugate et al., 2010). Moreover, research has found that openness to change is expedited by non-threatening organisational change. When organisational change threatens the job security of employees, it can have a disparaging effect on morale, attitudes to change and well-being, even when employees' own jobs are not endangered (Bordia et al., 2011; Devos, Buelens, & Bouckenooghe, 2007). The change content clearly impacts an employee's attitude towards change and poses a challenge for the organisation. For example, if the employee views the change as a threat, despite whether or not there is a threat to his or her job, he or she is likely to adopt negative attitudes towards it, thus showing resistance, which will subsequently affect the change outcome for the organisation negatively.

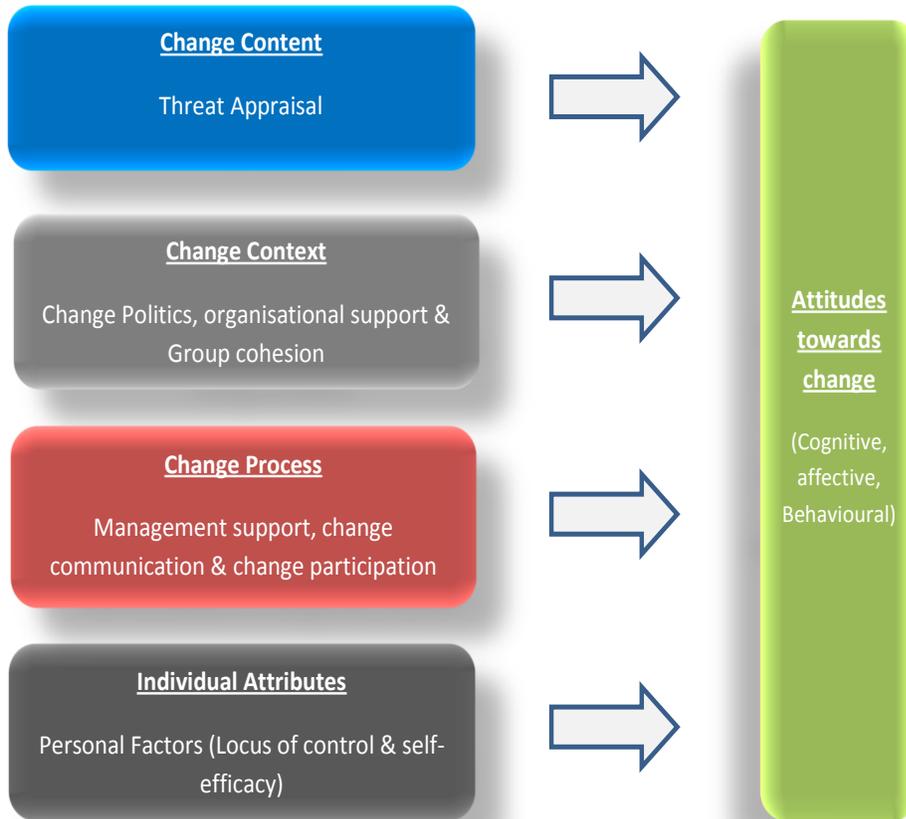


Figure 2.4. Factors influencing attitudes towards change (Holt, Armenakis, Field & Harris, 2007, p. 235).

## 2.4.2 Change context

Change politics, organisational support and group cohesion will be discussed in the section below.

### 2.4.2.1 Change politics

*Change politics* refers to the political activity of consultation, negotiation and conflict, which occurs at various levels in an organisation during the process of change management (Dawson, 2003; Friesl, Sackmann, & Kremser, 2011). Internal political activity may be in the form of negotiations between consultants, managerial and supervisory staff and human resources.

These individuals influence the decision-making agendas that are sometimes driven by a political agenda. This factor has been shown to impact on the morale of employees because

decisions are outside their control (Vigoda-Gadot & Beerli, 2012). Change politics has thus been shown to unsympathetically influence employee attitudes towards change and inhibit the organisational change process. Research has found that if employees view change politics as a deleterious exercise, they are less likely to trust the organisation and change managers' communication about change, and they are more likely to have negative attitudes toward change (Rousseau & Tijoriwala, 1999). The latter poses a challenge to the organisation in successfully implementing and managing change.

#### 2.4.2.2 *Organisational support*

*Organisational support* refers to employees' perception that the organisation values their contribution and cares about their well-being (during the change process) (Allen, Armstrong, Reid, & Riemenschneider, 2008; Kraimer, Seibert, Wayne, Liden, & Bravo, 2011). This perception should impact on employees' attitudes towards change. For example, high perceived organisational support is anticipated to impact on the employee's attitudes towards change such that it is perceived as less threatening, and may influence the schema for organisational change such that the change is viewed with more satisfaction (Eby et al., 2000). Armstrong-Stassen (2001) and Kraimer et al. (2011) lent support to this view and found that perceived organisational support was significantly related to positive acceptance of the change process which reduced turnover as well.

#### 2.4.2.3 *Group cohesion*

*Group cohesion* refers to the degree of cooperation and trust in the capability of team members. It is the perception of togetherness in the organisation, including the willingness of team members to support one another (Frenkel & Sanders, 2007; Ko, 2011). During times of organisational change, employees must often attain new skills, and undertake new job responsibilities, and this may be challenging and require significant support. The degree to which employees sense that their co-workers can help them through this process may influence their overall attitude towards change. Research has lent support to this view and has shown that perceptions of group cohesion are positively correlated to employees showing positive attitudes towards change, and reduce cynicism towards the results of change (El-Farra & Badawi, 2012; Lau, Tse, & Zhou, 2002).

The change context (change politics, organisational support and group cohesion) is of vital importance and needs to be considered by change practitioners when managing change. In terms of change politics, the political activity of consultation, negotiation and conflict can influence the decision-making process, thus affecting the employee's attitudes towards change (Vakola & Nikolaou, 2005; Vigoda-Gadot & Beerli, 2012). It is therefore apparent that change politics can influence the success of the change and should thus be considered within the change management process. Organisational support is another critical element to be considered when managing change as an employee's perception of whether or not the employee's contribution is valued will affect the employee's well-being and attitudes towards change. Lastly, group cohesion in terms of the support employees receive from their peers during change will affect the employee's attitudes towards change. Change practitioners need to be aware of these factors and manage change accordingly.

### **2.4.3 Change process**

The *change process* involves actions taken to influence employees for effective implementation of organisational change (Armenakis & Bedeian, 1999). Management support, change communication and change participation will be discussed below.

#### *2.4.3.1 Management support*

*Management support* during the change process is crucial because it comprises the enhancing characteristics necessary for employees to support the process such as skill training and implementing new job responsibilities (Susanto, 2008). According to research by Raes, Bruch, and De Jong (2013), employees' reactions to change result from management's proven commitment to the change and intended work outcomes. Interestingly, research has found that manager support may have some degree of psychological effect on employees, specifically in relation to organisational commitment. Management support would be more likely to impact on normative commitment resulting from employees' duties as opposed to a change in alignment of employees' goals and values with those of the organisation resulting from their affective commitment (Caldwell, 2003; 2011). However, perceived organisational support creates affective commitment because employees feel valued and cared for by organisations (Caldwell, 2003; 2011).

#### 2.4.3.2 *Change communication*

*Change communication* is crucial in a change process (Cooren, Kuhn, Cornelissen, & Clark, 2011). The principal reason for failure in change attempts is managers' inability to persuade organisation members to support the change using effective communication (Rafferty & Restubog, 2010). Research by Qian and Daniels (2008) has lent support to this view and has found that communication (high quality of information and sufficient information) is associated with positive attitudes towards change, where the employee is more likely to express openness to the change process. In addition, high quality of communication could reduce the employee's anxiety and uncertainty about the change, and make the change more acceptable emotionally. This view was also supported by a number of other studies in which readiness for change was directly correlated to proper communication (Chawla & Kelloway, 2004; Nelissen & Selm, 2008; Rafferty & Restubog, 2010; Susanto, 2008).

#### 2.4.3.3 *Change participation*

*Change participation* incorporates a broad range of undertakings through which employees can be involved in the decision-making process during change (Bordia et al., 2011; Hodgkinson, 1999; Kim, Hornung, & Rousseau, 2011). Organisations should be encouraged to promote change participation for their employees undergoing the change process. The logic for change participation is that it will nurture and encourage constructive behaviour among employees during changes (O'Brien, 2002). Some researchers indicate that change participation among employees helps to increase their performance and organisational commitment and reduces resistance to change, while increasing acceptance of change at organisational level (Boonastra, 2004; Bordia et al., 2011; Chawla & Kelloway, 2004; Wanberg & Banas, 2000).

The change process (management support, change communication and change participation) needs to be considered by change practitioners when managing change. Management support to ensure employees are trained in the new skills and capabilities required are paramount to embed new processes. Where management support is not received it is likely that an employee's organisational commitment can be affected, and he or she could experience higher levels of stress and develop negative attitudes towards change (Caldwell, 2003; Caldwell, 2011; Vakola & Nikolaou, 2005). Moreover, communication and participation have also been shown to affect an employee's organisational commitment, reduce anxiety and increase positivity towards the change (Qian & Daniels, 2008; Vakola & Nikolaou, 2005).

#### **2.4.4 Individual attributes**

In terms of *personal factors*, employees in organisations might respond in a different way to the same change because of their own individualities such as the *locus of control* and *self-efficacy* (El-Farra & Badawi, 2012).

##### *2.4.4.1 Locus of control*

*Locus of control* is a personal disposition that represents the extent to which employees tend to attribute what happens to them to internal factors (efforts an employee puts in) or to external factors (fate, chance or luck) (Bernardi, 2011).

Interestingly, research has found that the locus of control is a precursor to attitudes towards change, also showing that an employee with an internal locus of control will have confidence in the control he or she has over the change event and will not experience the negative consequences associated with an external locus of control (Bernardi, 2011; Elias, 2009). Moreover, Ng and Feldman (2011) found that employees with an internal locus of control are more likely to feel embedded in the organisation, which may have a positive impact on turnover. Change managers need to be aware of an employee's locus of control, which will help the organisation to manage change in line with employee expectations, in order to create buy-in and, in turn, reduce turnover during organisational change.

##### *2.4.4.2 Self-efficacy*

*Self-efficacy* involves the employee's perception that he or she possesses the skills and competencies necessary to execute the required response (Schwarzer & Hallum, 2008). In the context of organisational change, low self-efficacy is synonymous with negative attitudes towards change because employees who critique themselves as unable to cope with change demands will amplify the degree of difficulty of the change, which creates stress and impairs performance (Abraham, 2012; Bernerth, 2004). By contrast, employees with high self-efficacy will respond to the demands of the change and initiate greater determination to prosper (Abraham, 2012; Bernerth, 2004). Further research has shown that employees with high self-efficacy may in fact become more creative (Tierney & Farmer, 2011). Change managers can take advantage of these employees with creativity in helping to embed new job responsibilities and processes.

Individual attributes (locus of control and self-efficacy) are key variables to be considered when managing change. For example, employees with an internal locus of control are likely to feel that they have more control over the situation and are therefore more likely to experience lower stress, higher commitment and positive attitudes towards change (Bernardi, 2011; Elias, 2009; Ng & Feldman, 2011; Vakola & Nikolaou, 2005). By contrast, employees with an external locus of control will feel that they have no control over the situation, and therefore are more likely to experience higher stress, lower commitment and negative attitudes towards change (Bernardi, 2011; Elias, 2009; Ng & Feldman, 2011; Vakola & Nikolaou, 2005). By implication, change practitioners need to be aware of an employee's locus of control and manage the employee accordingly during change.

For example, more effort will need to be put into employees with an external locus of control in terms of providing specialised interventions to assist them in coping with the change. Self-efficacy also needs to be considered by change practitioners when managing change. For example, employees with high self-efficacy will be more likely to feel lower stress, higher commitment and positive attitudes towards change owing to their belief that they have the necessary capabilities and skills to execute the desired response (Schwarzer & Hallum, 2008; Vakola & Nikolaou, 2005). However, employees with low self-efficacy will be more likely to feel higher stress, lower commitment and negative attitudes towards change owing to their belief that they do not have the necessary capabilities and skills to execute the desired response (Schwarzer & Hallum, 2008; Vakola & Nikolaou, 2005). Change practitioners therefore need to be aware of an employee's self-efficacy and manage him or her accordingly. For example, more training and development may be necessary for employees with low self-efficacy to help them develop the required skills and competencies to cope with the change.

## **2.5 CRITICAL EVALUATION**

It is evident from the literature that the organisational context has changed significantly in the 21st century. Key drivers of change (globalisation, advanced managerial strategies, new technology, revolution from industrial to information societies) in the 21st century have significant implications for the way in which organisational change is managed (El-Ella, Bessant, & Pinkwart, 2015; Hon, Bloom, & Crant, 2014; Visagie & Steyn, 2011). Furthermore, these key drivers of change pose threats or provide opportunities for the employee. It is thus wise to expect employees to be faced with uncertainty and high levels of work stress. In addition,

because employee resistance has been noted as one of the outcomes of organisational change, a structured change management model (Lewin's three-step change management model) becomes crucial to equip the change practitioner with the necessary structure and insights (employees' readiness for change, ways to execute the change and ways to make the change sustainable) (Jones, 2010; Visagie & Steyn, 2011). The literature also recognises that employees' reactions to organisational change may be influenced by work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change (Ng & Feldman, 2011; Vakola & Nikolaou, 2005).

Furthermore, employees use defence mechanisms (humour, anticipation, denial, dissociation, isolation of affect and projection) as ways of coping with organisational change (De Board, 1983; Kramer, 2010). Change practitioners therefore need to consider the above when managing organisational change and subsequently tailor their style and approach accordingly. This will allow employees to feel engaged and valued throughout the process.

Variables (psychological and biographical) that influence attitudes towards change need to be carefully considered in the change management process. From a psychological perspective, the cognitive, affective and interpersonal dimensions have implications for the way in which employees think, feel and behave towards changes (Chiang, 2010; Lau & Woodman, 1995). Biographical variables, such as age and gender, have been shown to influence attitudes towards change. For example, younger employees may not readily buy into the benefits that organisational change could yield, and change practitioners need to expend a disproportionate amount of time on these employees (Yilmaz et al., 2013). Lastly, factors such as change content (threat appraisal), change context (change politics, organisational support and group cohesion), change process (management support, change communication and change participation) and individual attributes (the locus of control and self-efficacy) play a critical role in influencing attitudes towards change (Armenakis & Bedian, 1999). It is also evident that if change content, context and process and individual attributes are not managed well, this will pose a challenge for the organisation, which will inevitably determine whether or not the change is successful.

It is becoming more apparent that the sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change may in fact play a pivotal role in the change management process. Current research does not take into

consideration the psychological factors that influence an employee's general well-being and adjustment to change in the contemporary world of work. In consideration of the nature and pace of change, the above is particularly important to understand, in order to ensure successful change outcomes. Moreover, employee resistance to change and defence mechanisms employed would be important considerations for organisational psychologists to understand when managing change. Organisational psychologists would in some cases need to design change management programmes in a way that assists the employee to cope with the change.

The present research thus focused on relationships and interrelationships between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. A psychological profile for change interventions would thus be a useful tool to equip organisational psychologists to manage change successfully. Chapter 4 will discuss the concept of psychological profile in greater depth.

## **2.6 CHAPTER SUMMARY**

This chapter critically reviewed organisational change and employee behaviour in the 21st-century world of work. Variables (psychological and biographical) that influence attitudes towards change and organisational challenges (in relation to attitudes towards change) were discussed. Specific reference was made to change content, context and process as well as individual attributes.

Research aim 1, namely to conceptualise sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change in the 21st century, was thus partly achieved. Research aim 1.3, namely to conceptualise the attitude towards the change construct and explore how employees' biographical characteristics (age, gender, race and employment level) influence this construct, was also achieved.

Chapter 3 will focus on the questions pertaining to the conceptualisation of the work stress construct. The theory (models of stress) and variables influencing stress (age, gender, race and employment level) will also be explored. Lastly, the implications for change management practices will be discussed. Hence research aim 1.2 will be addressed in this chapter.

## **CHAPTER 3: SOURCES OF WORK STRESS**

**Keywords:** Organisational change, change management, work stress, employee behaviour.

Chapter 3 addresses research aim 1.2 which pertains to the conceptualisation of the work stress construct, and how employees' biographical characteristics (age, gender, race and employment level) influence this construct. In this chapter, the theoretical models relating to the construct of work stress will be explored. The implications for change management in relation to the construct of work stress will also be discussed. The chapter concludes with a critical evaluation of the theoretical foundations of the construct of work stress.

### **3.1 CONCEPTUALISATION OF WORK STRESS**

Work stress is defined as the non-specific response of the human body to any demands made upon it, resulting from the work environment and the job itself (Seyle, 1976; Suresh, Anantharaman, Angusamy, & Ganesan, 2013). Cooper, Kirkcaldy, and Brown (1994) broadened the view of work stress and defined it as a negatively perceived worth which stems from insufficient coping with the sources of stress, resulting in negative consequences for the employee (poor mental and physical health). Subsequently, research in the 21st century has focused on a transactional approach to work stress, where the relationship between the employee and work environment has been explored. Work stress is viewed as the physical and emotional reactions of an employee confronted with an external stimulus (Lazarus, 1999). Rollinson (2005) defines work stress as the conditions arising from the interaction between people and their work environment, which is typically characterised by changes in employees that force them to deviate from their normal functioning. Lazarus (1999) defines work stress as a development from a vigorous transaction between a person and his or her work environment that is appraised as potentially challenging, threatening or harmful. This leads to efforts to resolve the appraised challenge, threat or harm through coping processes. The latter definition of stress was deemed most suitable for this study because it forms part of the major theoretical perspective that focuses on the conceptualisation of work stress (Lazarus, 2013; Lazarus & Folkman, 1987).

## **3.2 THEORETICAL MODELS**

This section will critically review Lazarus and Folkman's (1987) transactional model of work stress, which underpins the construct of work stress in this study. Other theoretical models relevant to the construct of work stress will also be reviewed and critically compared.

### **3.2.1 Lazarus and Folkman's transactional model of work stress**

Lazarus and Folkman (1987) offered a valuable theoretical framework in order to assist the employee and organisation to recognise the significance of understanding the relationship between sources of work stress and the employee, from a transactional perspective. Figure 3.1 illustrates what the model entails.

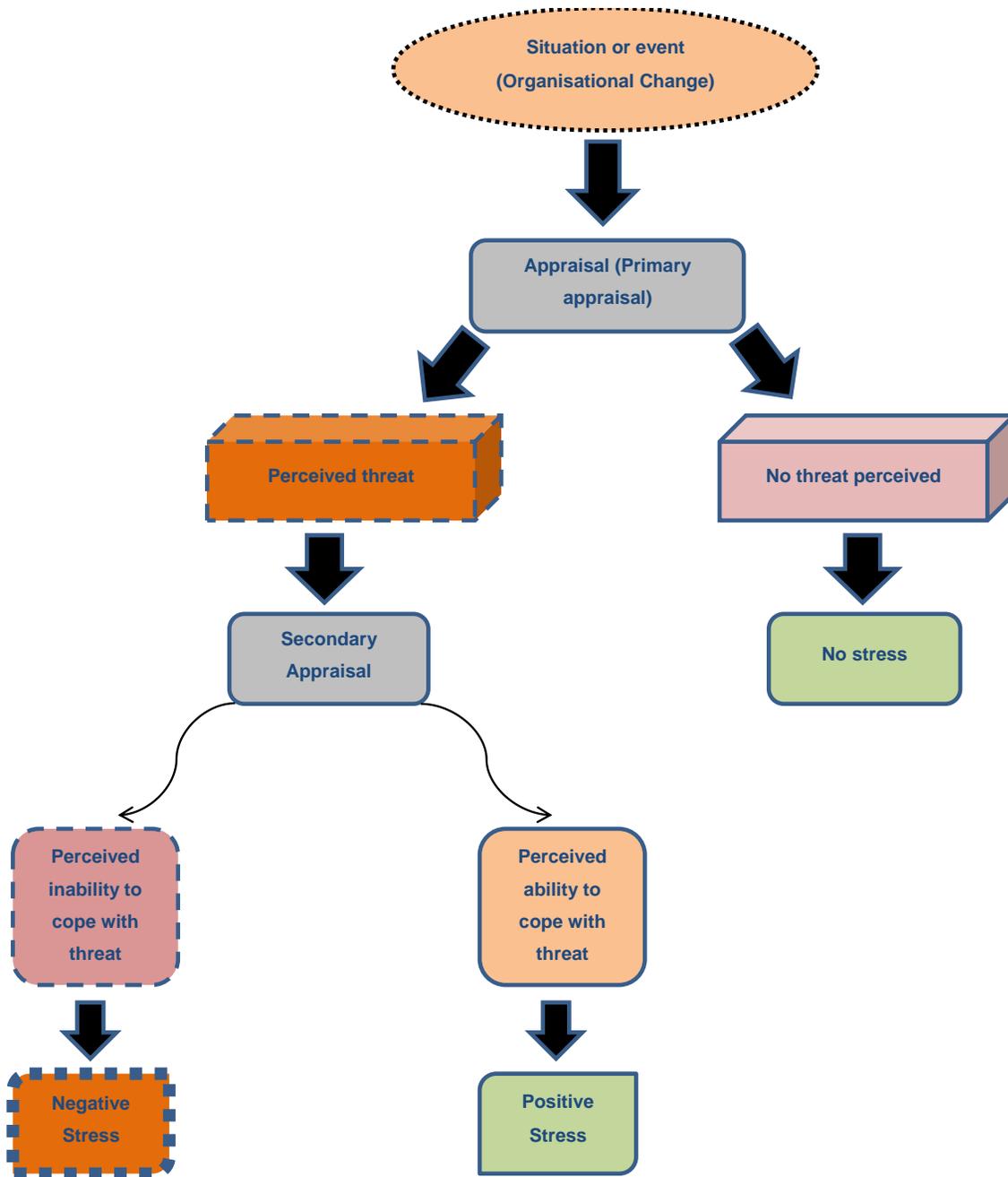


Figure 3.1. Transactional model of work stress (Lazarus & Folkman, 1984, p141)

Lazarus and Folkman's (1987) transactional model of work stress views stress as transactional in nature. This implies that work stress is neither the result of solely the employee nor the work environment, and instead, it refers to the interaction between the two (Lazarus, 1990; 2013). The interaction between the employee and the work environment is relevant to the context of organisational change.

When organisational change is implemented, work stress is often a result of the interaction between the employee and work environment (Vakola & Nikolaou, 2005). Moreover, role ambiguity, work relationships, tools and equipment, career advancement, job security, job autonomy, workload, pay, leader or manager support and aspects of the job have been cited in the literature as common sources of work stress which may in fact arise from organisational change (Coetzee & De Villiers, 2010; Rollinson, 2005; Rothmann, 2014; Rothmann et al., 2013). These sources of work stress can be seen as being the result of the employee perceiving an inability to cope with the new demands in the work environment, which is referred to as the *judgement process* where the employee recognises that work environmental demands are about to or exceed employee resources (Holroyd & Lazarus, 1982). In the context of organisational change, employees often feel out of control, anxious, sceptical and suspicious, and as a result question if they have sufficient resources available to deal with the change (Choi & Ruona, 2011; Dahl, 2011; Vakola & Nikolaou, 2005). This judgement process between the employee and the work environment involves two important *appraisal processes*. The first, *primary appraisal*, gives meaning to any encounter (organisational change), whereby an evaluation of the encounter takes place (Holroyd & Lazarus, 1982).

Moreover, *three types* of evaluations have been noted. Firstly, an *irrelevant encounter* is one that has no personal meaning for the employee and is disregarded. Secondly, a *benign positive encounter* is one that is considered valuable or necessary. Thirdly, a *stressful encounter* is one that is regarded as harmful, threatening or challenging (Lazarus, 1994). In summary, the employee will evaluate if the event or situation (organisational change) is irrelevant, threatening or challenging (Lazarus, 2013; Peacock, Wong, & Reker, 1993). If no perceived threat is experienced by the employee at the primary appraisal stage, then no stress is experienced. However, by contrast, if the threat is perceived at the primary appraisal stage, the employee will go through a secondary appraisal process (Lazarus & Folkman, 1987). During the *secondary appraisal* process, coping resources are evaluated. The employee is apprehensive about what can be done and how best to cope with the encounter. If the employee perceives an inability to cope with the encounter (organisational change), negative stress is subsequently experienced (Lazarus & Folkman, 1987).

By contrast, if the employee perceives the ability to cope with the encounter, then positive stress is likely to be experienced. *Negative stress* is associated with feelings of anxiety and mental or physical illness (Siegrist et al., 2010). Often negative stress is dependent on the work environment, where during times of change, high levels of anxiety may be experienced resulting in increased absenteeism and turnover, and decreased productivity (Kath, Stichler, Ehrhart, & Sievers, 2013). *Positive stress*, however, may actually be healthy for both the employee and organisation because it may sharpen productivity and efficiency (Siegrist et al., 2010). Figure 3.2 below illustrates this and shows positive and negative stress in relation to performance.

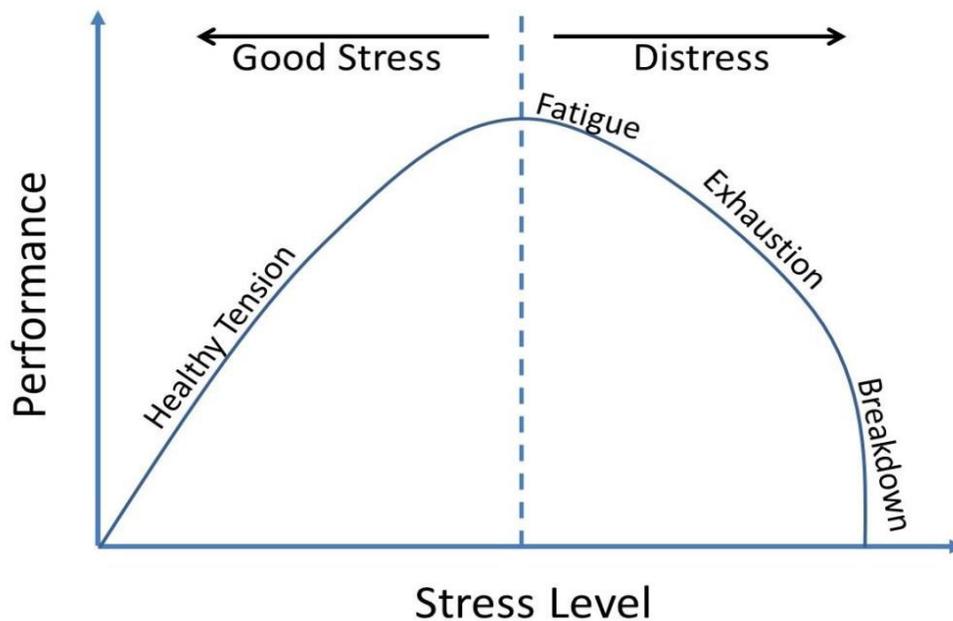


Figure 3.2. The stress response curve (as cited in Maymand, Shakhshian, & Hosseiny, 2012, p. 1382)

It is clear from Figure 3.2 above that positive stress (good stress) is more likely to be associated with higher levels of performance, whereas negative stress (distress) is likely to be associated with poor levels of performance (Weinstein & Ryan, 2011). Moreover, positive and negative stresses are dependent on the employee's perceived ability to cope with the change. *Coping* is anticipated to be dependent on a determination of whether anything can be done to change the situation (Folkman & Lazarus, 1984). Lazarus and Folkman (1984) identified two forms of coping, namely *problem-focused* and *emotion-focused coping*.

*Problem-focused coping* is similar to problem-solving tactics. It comprises efforts to define the problem, generate alternative solutions, weigh up the costs and benefits of the different actions, take actions to change, and, if necessary, acquire new skills. Moreover, problem-focused coping can be directed inwards to alter some aspect of self or outward to alter some aspect of the work environment. Many of the efforts directed at self, fall into the category of reappraisal. For example, changing the meaning of the situation or change will entail recognising the existence of personal resources or strengths or actually reducing ego involvement (Chrisopoulos, Dollard, Winefield, & Dormann, 2010; Gray-Stanley & Muramatsu, 2011; Lazarus & Folkman, 1984).

However, *emotion-focused coping* is directed toward decreasing emotional distress. This comprises efforts such as distancing, avoiding, selective attention, wishful thinking, blaming, minimising, venting emotions, meditating and seeking social support. Similar to the cognitive strategies identified in problem-focused coping, changing how an encounter (organisational change) is understood without changing the objective situation is the same as reappraisal. However, emotion-focused strategies do not change the meaning of a situation directly. For example, meditating during organisational change may help an employee reappraise the meaning of a situation, but the meditation does not directly change the meaning. Emotion-focused coping is the more common form of coping used, especially when events are not changeable (Dewe et al., 2010; Lazarus & Folkman, 1984). This is often the case in the context of organisational change as employees do not have the option of changing the situation. However, if change practitioners determine potential resources when the change is communicated, this may assist the employee in coping with the change.

Furthermore, Lazarus and Folkman (1984) summarise a large body of empirical evidence supporting the distinction between emotion-focused coping and problem-focused coping. The evidence from their research indicates that employees will in fact employ both types of coping to deal with stressful situations. Coping outcomes thus depend on the fit between appraisal and coping (Lazarus & Folkman, 1984). It is important to note that *reappraisal* takes place. Reappraisal is the process of repeatedly evaluating, changing or relabelling *earlier primary or secondary appraisals* as the situation or change evolves. In other words, what was originally perceived as threatening may be viewed as irrelevant or a challenge. Frequently, reappraisal results in the cognitive elimination of perceived threat (Lazarus, 1966; Lazarus, 2013; Lazarus & Folkman, 1984). Change practitioners need to understand the dynamics of reappraisal and how it may affect current change initiatives.

For example, if an employee has a negative view of previous changes he or she would have embarked on, he or she may resist the change. Moreover, there are many situational factors that influence appraisals of threat, such as the complexity of the situation or change, the employee's values, commitments, goals, resources available, uniqueness of the situation, self-esteem, social support, coping skills, situational constraints, degree of uncertainty, ambiguity, intensity, duration of the threat and controllability of the threat. What occurs during appraisal processes determines emotions and coping behaviours of employees (Lazarus, 1966; Lazarus & Folkman, 1984).

The transactional model of work stress has gained attention through recognising that stress is not a one-way interaction, but instead, the result of the interaction between the employee and the work environment (Lazarus, 1993; Lazarus, 2013; Lazarus & Folkman, 1987). This model is valuable in exploring the employee's interaction during change in the work environment. For example change often imposes on employees' uncertainty, which through the appraisal process, the employee perceives as a threat. This results in negative stress if there is a perceived inability to cope with the threat (Lazarus & Folkman, 1987). This model therefore encapsulates the theoretical components necessary to explore the relationship between the sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. One criticism of the transactional model of work stress is that it views stress in a linear manner (Lazarus & Folkman, 1987).

### **3.2.2 Other theoretical models**

The job characteristics model, the demand control support model, the job demands resources model, the demand skill support model and Cox's transactional model of work stress will be critically discussed below.

#### *3.2.2.1 The job characteristics model*

The job characteristics model was developed by Hackman and Oldham (1980). This model focused on aspects of job dimensions such as, skill variety, task identity, task significance, autonomy, job or agent feedback and dealing with others as sources of work stress for the employee.

It is anticipated that both positive and negative work characteristics give rise to critical psychological states which lead to consistent affective outcomes (motivation and satisfaction) (Piccolo, Greenbaum, Hartog, & Folger, 2010). Figure 3.3 illustrates this. In relation to the job characteristics model, the job diagnostic survey was developed by Hackman and Oldham (1980). This questionnaire was designed for job analysis, which involves key types of job redesign, including creating feedback, combining tasks, methods and job enrichment.



Figure 3.3. The job characteristics model (Hackman & Oldham, 1980, p. 78-80)

According to the research, the strength of this model is that there is notable literature relating the outcome variables to the core job characteristics. However, a criticism of the model is that there are limited core job dimensions and only a small number of key psychological states are considered (Kompier, 2003). This model does not consider coping or resources, which are relevant in the context of organisational change.

### 3.2.2.2 The demand control support model

The demand control support model was developed by Karasek (1979) and focuses on psychological demands and decision latitude (control). The demand control model was also referred to as an interactional model as it focused on the physical features of employees' interactions with their environment (as opposed to the process of the interaction) (Chungkham, Ingre, Karasek, Westerlund, & Theorell, 2013; Cox & Griffiths, 1995). Figure 3.4 illustrates the relationship between psychological demands and decision latitude (control).

It is clear from this illustration, that high demands and low decision control will result in high strain and stress for the employee. This is often the case with organisational change, where employees are given new roles and responsibilities, yet have little control over decision making, which results in high stress for the employee concerned (Baba, Tourigny, Wang, Lituchy, & Monserrat, 2013).

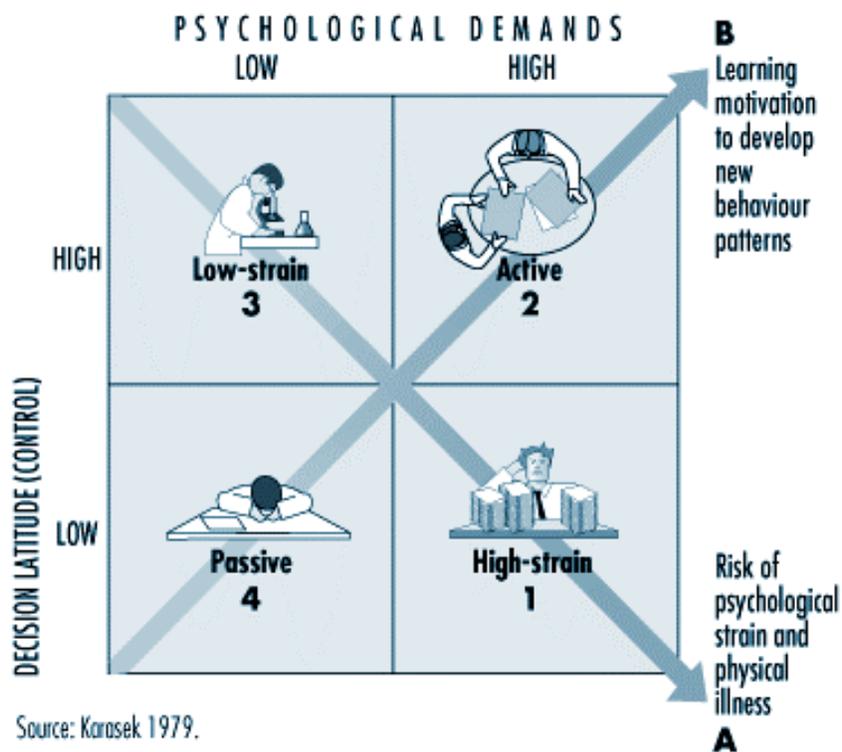


Figure 3.4. The demand control support model (Karasek, 1979)

Moreover, research has shown that employees exposed to high levels of demands, with low levels of job control, are more likely to show increased levels of fatigue, depression, heart

disease and even mortality (Canivet, Choi, Karasek, Moghaddassi, Staland-Nyman, & Ostergren, 2013; Karasek, 1979). Interestingly, employees with high demands and high levels of job control showed lower levels of illness (Karasek, 1979). Thus Karasek (1979) proposed that high control sometimes acts as a buffer to the negative effect of demands. Nearly a decade later, Johnson and Hall (1988) included social support as a buffer to high demands. This was noted as a strength of the model. Despite the addition of social support to the model, there were mixed views on the interactive effects of demands and controls.

The model was also criticised for the limited number of job characteristics, which does not reflect the dynamic multiple stressor nature of contemporary work environments (Baba et al., 2013). Cox, Griffiths, Barlow, Randall, Thomson, and Rial-Gonzalez (2000) highlighted the fact that the definition of demand is based predominantly on workload and no other types of demand. Thus a narrow view has been adopted. Moreover, the model has assumed that high control is preferred since it acts as a buffer to demands. However, employees with low self-efficacy may in fact not prefer control because it may be a stressor for them. The demand control support model is therefore narrow and does not consider the employee's stress complexities. Furthermore, in the context of organisational control, the employee is not likely to feel in control because decisions are made at management level. Hence this model is not suitable for use in the context of organisational change.

### *3.2.2.3 The job demands resources model*

The job demands resources model was developed by Demerouti, Bakker, Nachreiner, and Schaufeli (2001). This model fundamentally classifies psychosocial factors into the global categories of job demands and job resources. It also takes into consideration how job demands and job resources affect organisational outcomes (Hu, Schaufeli, & Taris, 2011; Llorens, Bakker, Schaufeli, & Salanova, 2006). Figure 3.5 below illustrates this relationship.

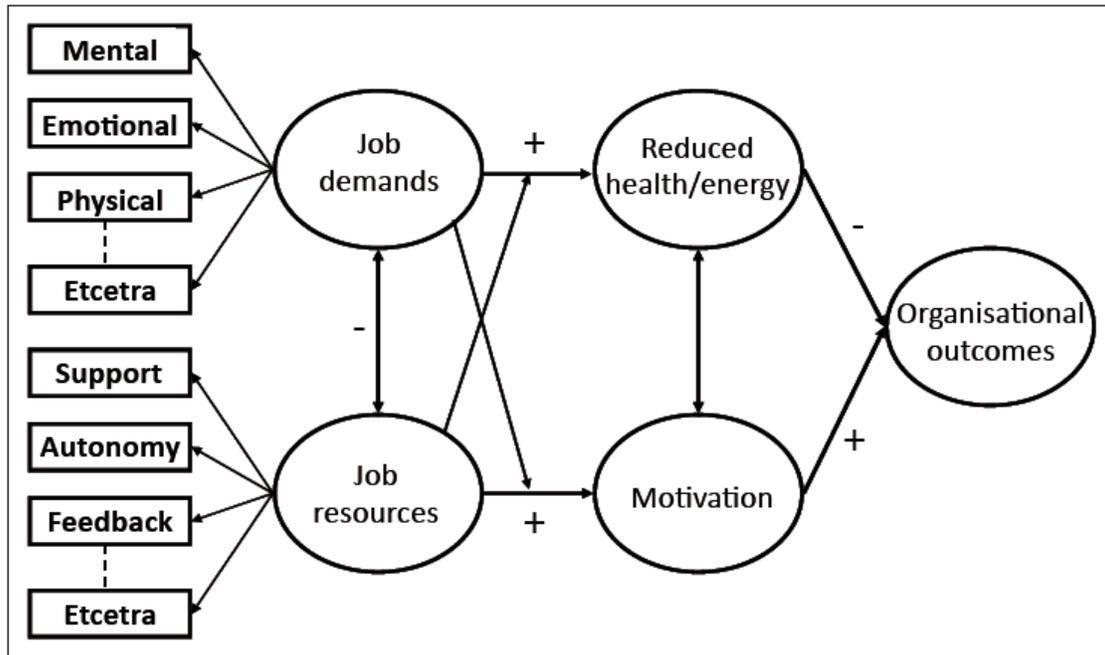


Figure 3.5. The job demands resources model (Demerouti et al., 2001)

According to Llorens et al. (2006), job demands are described as the physical or social aspects of a job that necessitate efforts from an employee and therefore have physical and mental costs. Work engagement and burnout are anticipated to be psychological states that lead to health effects where organisational commitment may be compromised by burnout (Llorens et al., 2006). These authors (2006) also indicated that the job demands resources model is an empirical, all-encompassing model, which can be applied to any work environment regardless of the demands or resources involved. This model also assumes that resources may buffer the influence of different demands on stress outcomes (Bakker, Demerouti, & Euwema, 2005; Demerouti & Bakker, 2011). Xanthopoulou et al. (2007) state that support gained for the job demands resources model is largely based on characteristics of the work environment (similar to Karasek's model) and does take into consideration the employee, stress and work environment complexity experienced during organisational change.

Subsequently, Xanthopoulou et al. (2007) attempted to extend the research based on the job demands resources model, by adding personal resources (self-efficacy, organisational based self-esteem and optimism). They indicate that these resources should moderate and mediate the relationships between environment and outcomes. However, Xanthopoulou et al. (2007) established no moderating role for personal resources.

However, they did find that personal resources mediated the relationship between job resources, and work engagement and exhaustion. This model brought more direction for future research, but it did not manage to explain the stressor-strain relationship, which is highly relevant in the context of organisational change. More recently the job demands resources model has become more popular (Schaufeli & Taris, 2014). One reason for this is that it assumes that employee health and well-being are products of the balance between positive (resources) and negative (demands) job characteristics (Schaufeli & Taris, 2014). The job demands resources model has also been favourably viewed because it encompasses all job demands and job resources (Schaufeli & Taris, 2014). Moreover, it has been viewed as more flexible as it can be applied across various work environments (Schaufeli & Taris, 2014). Despite the recognised strengths of this model, it has been criticised because there is no room for its improvement (Schaufeli & Taris, 2014).

#### *3.2.2.4 The demand skill support model*

The demand skill support model was developed by Van Veldhoven, Taris, De Jonge, and Broersen (2005). The purpose of this model is to indicate minimum factors that would assist practitioners to predict stress in a diverse range of situations and occupations. Van Veldhoven et al. (2005) investigated the relationship between pace, workload, physical effort, task autonomy, skill utilisation, quality of relationships with peers and supervisors, and job security. They further investigated the outcome variables of work-related fatigue, task satisfaction and organisational commitment.

The results of this study yielded a model that included the four factors of physical effort, time demands, skill utilisation and quality of social relationships. Task autonomy and job security did not make significant enhancements in predicting outcomes over the above-mentioned factors. Based on this, Van Veldhoven et al. (2005) proposed that demands were more likely to correlate to health outcomes, strain and skill utilisation. Social support was more likely to correlate to attitudinal outcomes and wellbeing. The strength of the demand skill support model is that the four-factor solution was also found to be applicable to a range of occupational situations. However, the model was criticised for only making use of a certain degree of job characteristics. The model could be enhanced by including more factors (Van Veldhoven et al., 2005).

Critics have highlighted the fact that the demand skill support model gives little recognition to the effect of individual or employee differences in the stress process, or subjective perceptions of job demands. It has thus been recommended that this model could be useful as a preliminary screening tool to obtain an overview of the levels of stressors in an organisation (Dewe & Trenberth, 2004; Florio, Donnelly, & Zevon, 1998; Frese & Zapf, 1999).

#### 3.2.2.5 Cox's transactional model of work stress

Cox's transactional model of work stress has a number of similarities with Lazarus and Folkman's (1987) transactional model of work stress, in that stress is viewed in the context of a transactional approach. Cox's transactional model of work stress (1978) identifies *five stages*. The *first stage* represents demands from the environment, while the *second stage* represents employees' perceptions of these demands compared to their ability to cope (Cox et al., 2000). Stress is conceptualised as being the result of a mismatch between perceptions of a demand and beliefs about one's ability to cope with it (Cox et al., 2000). The *third stage* of the model is related to the mental and physical changes that the person undergoes as a result of recognition of a stress state, and involves secondary appraisal and coping (Cox et al., 2000). The *fourth stage* of the model refers to the outcomes or consequences of coping, while the *fifth stage* relates to proposed feedback which occurs in relation to all other stages (Cox et al., 2000).

In summary, the model proposes that the first two stages (primary appraisal) are a continual monitoring process, while the third stage of the model (secondary appraisal) is a decision-making stage. The overall stress process is embedded in a problem-solving context, where coping resources as well as an employee's locus of control are considered important (Cox & Ferguson, 1991). One strength of Cox's transactional model of work stress is that individual differences are taken into consideration (Cox & Ferguson, 1991). Another strength is that it offers a transactional view of stress which has been regarded as superior to other stress models (Cox & Ferguson, 1991). However, the model has been criticised for being grounded in a problem-solving approach.

During times of organisational change, the employee experiences high levels of stress and is unlikely to adopt a rational approach to finding solutions to his or her problem. The model is therefore unsuitable to be used in the context of organisational change (Nielsen, Taris, & Cox, 2010). Moreover, although there are research studies supporting individual differences (locus of control, self-efficacy, and their relationship to health outcomes) results on the mediating and moderating roles of these individual factors are far from conclusive (Cox et al., 2010; Parkes, 1994).

### **3.2.3 Sources of work stress**

Lazarus and Folkman's (1987) transactional model of work stress explains that work stress is a result of the interaction between the employee and the work environment. In the context of organisational change, the employee interacts with the environment and conducts a primary appraisal. When the change is perceived as a threat, a secondary appraisal is conducted, and if employees perceive an inability to cope with the change, stress is experienced for them (Lazarus & Folkman, 1987). Common sources of work stress which may arise from organisational change have been cited in the literature as the following:

*Role ambiguity:* This relates to the amount of stress experienced by an employee owing to vague direction or constant change regarding performance expectations, duties, responsibility and constraints that define his or her job (Coetzee & De Villiers, 2010).

*Work relationships:* Poor or unsupportive relationships with colleagues and/or line managers, isolation (a perceived lack of adequate relationships) and unfair treatment can all be a potential source of stress (Coetzee & De Villiers, 2010).

*Tools and equipment:* To perform their jobs effectively, individuals need to feel they have the appropriate training, resources and equipment (Coetzee & De Villiers, 2010).

*Career advancement:* This refers to the stress experienced by individuals as a result of a perceived lack of opportunity to further their career prospects in the organisation for which they work (Coetzee & De Villiers, 2010).

*Job security:* Job insecurity is an overall concern of losing one's job or the discontinuation of one's job. It also implies uncertainty about the future (Coetzee & De Villiers, 2010).

*Lack of job autonomy:* The experience of stress is strongly linked to perceptions of decision-making authority and control. This may be due to either job constraints or workplace constraints. When there is significant interdependence between the person's tasks and the tasks of others, the person is likely to experience stress (Coetzee & De Villiers, 2010).

*Work-home interface:* The demands of work have the potential to spill over and interfere with individuals' personal and home lives. This can put a strain on relationships outside work and impact upon the level of stress, especially when the individual experiences a perceived lack of social support at home or from friends (Coetzee & De Villiers, 2010).

*Workload:* This refers to the amount of stress experienced by individuals because of the perception that they are unable to cope or be productive with the amount of work allocated to them. When people are expected to do more than the time and resources available permit them to do, they are likely to experience strain (Coetzee & De Villiers, 2010).

*Compensation and benefits:* The financial rewards that work brings are obviously important because they determine the type of lifestyle that an individual can lead. In addition, they often influence individuals' feelings of self-worth and perceptions of their value to the organisation (Coetzee & De Villiers, 2010).

*Lack of leader/manager support:* A supportive work setting is necessary to alleviate the effects of stress in the workplace. Employees need both tangible and emotional support, including trust and confidence, guidance, recognition, feedback and active interest from their immediate managers (Coetzee & De Villiers, 2010).

*Aspects of the job:* The fundamental nature of the job could cause stress. This includes factors such as physical working conditions, lack of challenging and meaningful assignments, type of tasks, and amount of satisfaction derived from the job itself (Coetzee & De Villiers, 2010).

In the FMCG work environment, all of the sources of work stress cited above are relevant to the context of organisational change. The job characteristics model cites skill variety, task variety, task significance, autonomy, job and agent feedback and dealing with others (relationships) as common sources of work stress (Hackman & Oldham, 1980). The demand control model recognises that high demands and low decision control are sources of work stress for the employee (Karasek, 1979). This may be the case in the context of organisational change as often the employee is excluded from the decision-making process. The job demands resources model explains that job demands (physical and social aspects of the job) and job resources are sources of work stress for the employee (Demerouti et al., 2001). The demand skill support model recognises pace, workload, physical effort, task autonomy, skill utilisation, quality of relationships with peers and supervisor and job security as sources of work stress for the employee. All the theoretical models mentioned above cite common sources that are pertinent to the elements of the job (autonomy, work overload, role ambiguity, job security, tools and equipment, career advancement, compensation and benefits) as well as social elements (peer, supervisor relationships and support and work home interface). It is clear from the literature that if these common sources of work stress are managed during a change process, minimal stress will result for the employee, which may in fact result in positive attitudes towards the change (Vakola & Nikolaou, 2005).

### **3.3 VARIABLES INFLUENCING WORK STRESS**

In this section, biographical variables (age, gender, race and employment level) and their influence on work stress are discussed. Figure 3.6 illustrates the variables influencing work stress.

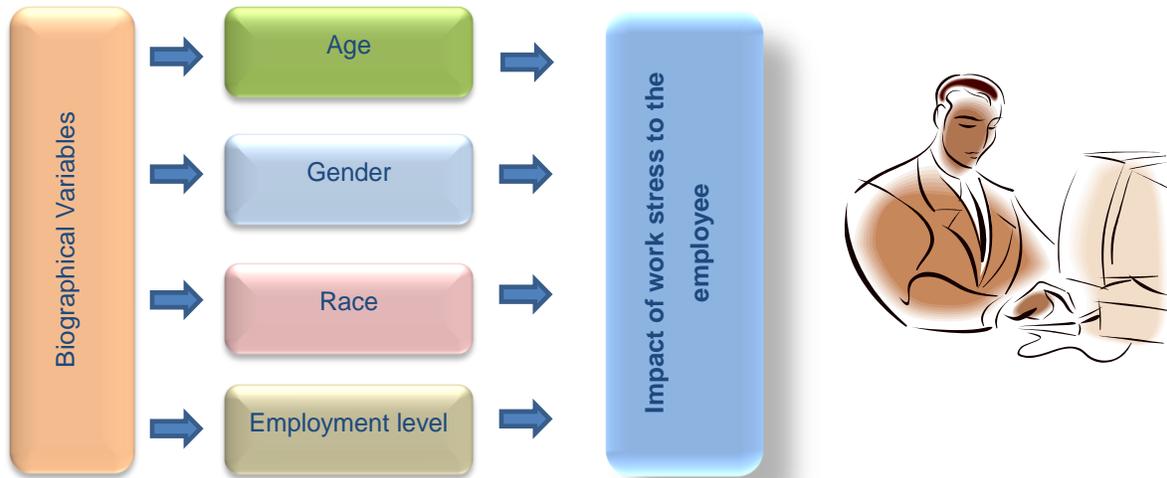


Figure 3.6. Biographical variables influencing work stress for the employee

### 3.3.1 Age and work stress

Balakrishnamurthy and Sankar (2009) investigated the impact of age on work stress. The mean stress score of employees in the 27 to 36 age group revealed that they had a higher amount of stress when compared to employees older than 36 years. It could be that the older employees become, the more equipped they are to deal with work stress as they have the necessary work experience (Balakrishnamurthy & Sankar, 2009). This finding was consistent with the research conducted by Latha and Prabhu (2012) who found that high levels of stress were reported by employees in the 20 to 25 age group. The stressors were attributed to workload, conflict with other employees, inadequate emotional preparation, uncertainty and discrimination. Moreover, Ogiwara, Tsuda, Akiyama, and Sakai (2008) found that older male employees in the organisation were highly valued and that they enjoyed greater job control and reported fewer depressive symptoms (work stress). However, another research study found that older workers reported higher levels of work stress based on deadlines and autonomy (Shultz, Wang, Crimmins, & Fisher, 2010).

### **3.3.2 Gender and work stress**

Ogiwara et al. (2008) investigated the relationship between gender and work stress. They found that males scored higher on a number of scales relating to work stress. Particular reference was made to relationships and work overload. Moreover, female employees reported higher levels of physical ill health caused by work stress than male employees. This finding was consistent with the study by Rani and Mishra (2001). By contrast, in a study conducted by Coetzee and De Villiers (2010), no significant differences were noted in terms of gender and sources of work stress within the South African context. According to Blix, Cruise, Mitchell, and Blix (1994) women employees experienced more stressors and strains than their male counterparts as a result of a lack of role models and increased role conflict as they attempt to balance roles at home and work. This was also found historically. For example, Hayes (1986) noted that the demands on women's time combined with role conflicts and the absence of mentors negatively affected their health, work and relationships. Further, for male employees, role conflict or role ambiguity and job requirements were positively correlated with depression caused by work stress. Hence it was recommended that for men's mental health to improve, the discordance between the expected role and the given role needs to be aligned.

However, in terms of job control for male employees, this was negatively correlated with depression. This suggests that the opportunity to make decisions may have a positive effect on male employees in the workplace (Ogiwara et al., 2008). In terms of female employees, low social support and interpersonal conflict were strongly positively correlated with sources of stress resulting in depression. This finding was consistent for male employees as well, and thus the support of supervisors and co-workers may be important for mental health regardless of gender (Ogiwara et al., 2008). Furthermore, according to the results of the study, 57% of female employees who felt stress in the workplace revealed "interpersonal relations" as a primary source of stress. Female employees ranked interpersonal relations as a priority among other sources of work stress. Male employees also ranked interpersonal relations, but other stress factors such as workload were a greater priority for them (Ogiwara et al., 2008). In a study conducted by Klassen and Chiu (2010) it was found that females reported higher levels of work stress, which may be correlated to lower job satisfaction.

### **3.3.3 Race and work stress**

Van Zyl (1993) conducted a study on the measurement of work stress in South African organisations. It was concluded that coloureds, whites, asians and African black South Africans suffer from high levels of work stress. One of the reasons noted for these high levels of work stress was attributed to fear of organisational change, particularly retrenchment and work overload. Moreover, the study showed that South African organisations (public and private organisations) do not realise the effects of work stress on employees. Change practitioners inevitably need to include a stress management programme as part of the change agenda. Further, Jackson et al. (2010) found that African black people particularly reported high levels of work stress, and showed lower self-esteem and mastery in the work environment. Coetzee and De Villiers (2010) found that there are significant differences between the sources of work stress and race groups in South Africa. The findings of the study showed that white employees reported that workload is a significant source of work stress when compared to African black employees. African black employees found that compensation, benefits, lack of leaders, managed support, guidance and career advancement prospects were more significant in terms of sources of work stress. Pienaar and Van Zyl (2008) reported similar findings. They found that African black people view career advancement as a significant source of work stress. It was also reported that job role ambiguity, job characteristics and relationships with superiors were significant sources of work stress. Coopmans (2007) investigated the stress-related causes of presenteeism among South African managers and found that African black managers reported lower stress levels which yielded lower productivity.

The findings of Coopmans (2007) were attributed to affirmative action measures introduced into the South African work environment. Jackson et al. (2010) found that Asian, coloured and African black employees reported higher levels of work stress which were attributed to access to socioeconomic resources. Overall, there seems to be a lack of research in terms of race and work stress, in the context of organisational change in South African FMCG companies. This study attempted to investigate this relationship further.

### **3.3.4 Employment level and work stress**

In terms of employment level, Dua (1996) found that employees at a senior level are more stressed. This finding was attributed to senior employees having higher workloads and more demands. Furthermore, the findings of Winter, Taylor and Saros (2000) were consistent with the above and showed that employees at higher levels in the organisation experience role overload, thus experiencing more stress. O'Neill and Davis (2011) found that employees on a management level experience more work stress than employees on a non-management level. These findings indicate that there is a link between employment level and work stress. For the latter reason, this study explored this relationship further as there is no evidence in the context of organisational change in the South African FMCG industry.

The influence of biographical variables (age, gender, race and employment level) on work stress was clearly noted in the literature. In terms of age, older employees were found to experience lower levels of work stress when compared to younger employees as older employees had more experience (Balakrishnamurthy & Sankar, 2009; Latha & Prabhu, 2012). In terms of gender, there were contradictory results. For example, males were found to report higher levels of work stress when compared to females and this was attributed to relationship and workload (Ogiwara et al., 2008). In another study, women were found to have higher stress levels when compared to males, and this was attributed to women having to balance roles at home and at work (Blix et al., 1994). In terms of race, contradictory results were also reported. For example, all race groups (white, coloured, African black and Asian) were found to experience high levels of stress, which were attributed to their fear of organisational change. However, African black employees showed higher stress levels when compared to white employees and this was attributed to compensation, benefits, lack of leader/ manager support (Coetzee & De Villiers, 2010). In terms of employment level, studies showed that senior employees reported higher stress levels, which were attributed to higher workload and demands (Dua, 1996; O'Neil & Davis, 2011). It is clear that there is a relationship between biographical variables and work stress. However, a gap noted in the literature is that there is a paucity of empirical evidence of the relationship between biographical variables and work stress in the South African FMCG work environment, a factor further explored in this study.

### **3.4 IMPLICATIONS FOR CHANGE MANAGEMENT PRACTICES**

It is clear from the literature that organisational change is viewed as performance enhancing in the contemporary workplace (Bordia et al., 2011; Bouckenooghe, 2010). Hence change management practices become even more crucial for organisations. However, the success of change management practices in most organisations is of great concern. Research has noted that there is a high failure rate of change, which is attributed to the lack of consideration for the human element (Beer & Nohria, 2000; Burnes, 1996). Moreover, organisations that do not manage change well will be faced with high turnover, poor productivity, demotivation, stress and less committed employees who are more likely to adopt negative attitudes towards change (Vakola & Nikolaou, 2005). One way of overcoming the issues noted is to ensure that change in the organisation is managed well, and considered at an individual, employee level. Management in the organisation has a crucial role to play (Mellor et al., 2011). Change management is a deliberate action taken to enhance organisational efficiency and effectiveness. The primary purpose of change management is to ensure that employees transition through the changes (with minimal disruption to the organisation's performance and productivity) (Cameron & Green, 2012). However, change management practitioners tend to show little consideration for the employee (Biron, Gatrell, & Cooper, 2010). When the organisation proposes change, this may imply a shift in strategy or goals which, in turn, implies a shift in employees' goals. The changes in employees' goals may actually affect their personal lives and have implications for their families. Thus if employees and the implications for their personal lives are not considered in the change management agenda, they are more likely to experience high levels of stress (Vakola & Nikolaou, 2005).

Moreover, organisational change may also require new skills or necessitate a comprehensive review of job roles and responsibilities and if not managed well these could result in anger, uncertainty, distrust, and increased work stress for the employee. This does not simply suggest that organisations should not change at all, but it does strongly suggest that they should focus more on the consequences of change. Organisations should focus more on the risks associated with organisational change at the level of individual employees (Dahl, 2010). Change management is an intimidating task for managers and human resource practitioners in an ever-changing, competitive FMCG work environment. One of the conventional ways of managing change of employees is through reward and recognition systems (Selected FMCG, 2013).

The employee is “incentivised” in some way in an effort to retain employees in the organisation during the change process. However, research has shown that reward and recognition programmes may only be a short-term solution because if the change is perceived as poorly managed by the employee, it will lead to negative outcomes (negative attitudes towards change, high stress levels, low commitment). By contrast, if change is perceived to be well managed by the employee, it will lead to positive outcomes (positive attitudes towards change, lower levels of stress, higher commitment) (Bordia et al., 2011). Dunham et al.’s (1989) model of attitudes towards change supports this view and indicates that the way in which an employee thinks about the change (cognitive) will inform the way in which he or she will feel (affective) and behave (behavioural) towards the change. Lazarus and Folkman’s (1987) transactional model of stress indicates that when an employee is faced with a change, he or she will appraise the situation to determine if he or she will cope with the change. If the employee perceives that the change is manageable, or that he or she can cope, lower levels of stress will be experienced. Hence change management practitioners need to consider this as part of their change management programme. It is clear from the literature that the employee’s perception of change is critical. Research has shown that change management practices such as participation, decision making and adequate communication are positively related to employee buy-in and openness to change. However, poor change management practices such as lack of participation and communication about change will lead to unfavourable outcomes, consequently reducing employee buy-in and openness to change (Lewis, 2011; Oreg, 2006).

Lastly, the relationship between the different biographical variables (age, gender, race, and employment level) has yet to be fully investigated in the context of organisational change, particularly in the FMCG industry. Existing research justifies the need to further investigate biographical variables in relation to work stress (Balakrishnamurthy & Sankar, 2009; Dua, 1996; Iverson, 1996; Jackson et al., 2010; Latha & Prabhu, 2012; Ogiwara et al., 2008). These findings will yield valuable insights for change practitioners to consider in their change management agendas.

### 3.5 CRITICAL EVALUATION

It is evident from the literature that work stress is a vital variable to be considered in the context of organisational change. The conceptualisation of work stress has posited a need to review stress from a transactional perspective (Lazarus, 2013; Lazarus & Folkman, 1987). Further, work stress needs to be incorporated as one of the critical variables in the change management agenda. The literature has noted that high levels of work stress caused by the uncertainty of change will lead to many negative outcomes for the employee (anxiety, mental and physical illness) and the organisation (increased absenteeism, turnover and poor productivity) (Dewe & Trenberth, 2012; McHugh, 1997; Schabracq & Cooper, 2000). Lazarus and Folkman's (1987) transactional model of stress indicates that work stress is an interaction between the employee and the work environment. In a situation of organisational change, the employee will appraise the situation to determine the threat.

Change practitioners need to ensure proper communication and consideration for the employee. This will also ensure that change practitioners maintain their integrity in the process (Lewis, 2011; Vogelgesang, Leroy, & Avolio, 2013). Moreover, change practitioners need to assist employees by determining potential resources available to assist them to cope with the change (Lazarus, 2013; Shin, Taylor, & Seo, 2012). For example, if an employee is retrenched, post-retrenchment programmes to assist him or her secure alternative employment should be offered. If there are changes in systems or processes, training needs to be put in place to develop new skills (Lazarus, 2013; Shin et al., 2012). This is fundamental to the change process, and as Lazarus and Folkman (1987) revealed, if an employee perceives a threat in the situation (change), he or she will go through a secondary appraisal process, where his or her ability to cope with the change will be determined. If the employee perceives that he or she can cope with the change, the outcomes of the change process will be more successful for the organisation, as the employee is more likely to experience positive stress, which will prompt higher levels of performance and productivity during the change. By contrast, if the employee perceives that he or she cannot cope with the change, the outcomes of the change process are more likely to be unsuccessful. The employee in this situation will experience negative stress, which is associated with lower levels of performance and productivity during the change (Lazarus & Folkman, 1987; Maymand, Shakhshian, & Hosseiny, 2012).

Lazarus and Folkman (1987) highlighted the fact that an employee will also experience reappraisals, where earlier primary or secondary appraisals will be revisited. This is an important point to note, because if employees experienced poor change management previously, they may have negative attitudes towards the current change. Change practitioners need to be consistent in their approach in the organisation and ensure at all times that employees are at the forefront of the change agenda, with stress management being an integral part. Furthermore, coping and resources must be considered (Brashers & Hogan, 2013; Lazarus & Folkman, 1987). Other theoretical models relevant to the construct were explored (the job characteristics model, the demand control support model, the job demands resources model, the demand skill support model and Cox's transactional model). Upon critically reviewing these models, it became clear that Lazarus and Folkman's (1987) transactional model of work stress was more suitable for conceptualising and exploring the interaction between work stress and the employee, in the context of organisational change because it takes into consideration the multiple complexities of change and work stress (Lazarus, 2013). Moreover, significant sources of work stress relevant to the study include role ambiguity, work relationships, tools and equipment, career advancement, job security, job autonomy, work home interface, workload, compensation and benefits, lack of leader/manager support and aspects of the job. The biographical variables influencing work stress were explored. Age, gender, race and employment level have been understood to have a correlation with work stress in the literature (Balakrishnamurthy & Sankar, 2009; Coetzee & De Villiers, 2010; Jackson et al., 2010; Klassen & Chiu, 2010; Latha & Prabhu, 2012; Ogiwara et al., 2008; O'Neill & Davis, 2011). This study further investigated this relationship in the South African FMCG work environment in the empirical study.

### **3.6 CHAPTER SUMMARY**

The aim of chapter 3 was to conceptualise the construct of work stress by means of a comparative examination of the basic literature and research on this construct. The biographical variables (age, gender, race, and employment level) influencing this construct were also explored. In addition, this chapter critically reviewed theoretical models relating to work stress. The chapter concluded with a discussion of the implications for change management in relation to the construct of work stress. Herewith research aim 1.2 has been achieved, namely to conceptualise the work stress construct, and how employees' biographical characteristics (age, gender, race, and employment level) influence work stress.

Chapter 4 will deal with the conceptualisation of psychological attachment (organisational commitment and job embeddedness) and explore how employees' biographical characteristics (age, gender, race and employment level) influence psychological attachment (organisational commitment and job embeddedness). It will also conceptualise the theoretical relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. Furthermore, it will explore how the elements of the psychological profile constructed from the theoretical relationship dynamics inform organisational change interventions. Thus a theoretical outline will be provided for the psychological profile for organisational change interventions.

Chapter 4 will address research aims 1.2, 2 and 3 to conclude the literature review aims.

## **CHAPTER 4: PSYCHOLOGICAL ATTACHMENT**

**Keywords:** Psychological change profile, organisational commitment, affective commitment, continuance commitment, normative commitment, job embeddedness, fit, links, sacrifice

In this chapter, the constructs of organisational commitment and job embeddedness and the related theoretical models will be explored. The variables (age, gender, race and employment level) influencing organisational commitment, job embeddedness and the implications for change management will also be discussed. In the present study, the term “psychological attachment” was used as an aggregate for the constructs of organisational commitment and job embeddedness. Psychological attachment is the degree to which the employee internalises or adopts characteristics of perspectives of the organisation (O’Reilly & Chatman, 1986). The integration between the notions of organisational commitment and job embeddedness and how these relate to psychological attachment will be discussed. Hypothesised relationships on the mediating role of organisational commitment and job embeddedness on the sources of work stress and attitudes towards change will also be explored. The chapter will conclude with a theoretical integration of the variables by means of a discussion of an integrated theoretical psychological profile for change interventions. The implications for change management practices using the theoretically proposed psychological profile will also be discussed.

### **4.1 ORGANISATIONAL COMMITMENT**

In this section, the conceptualisation of organisational commitment, theoretical models of organisational commitment and an evaluation of the theoretical models will be discussed. Variables influencing organisational commitment and implications for change management practices will also be discussed.

#### **4.1.1 Conceptualisation**

Over the years, organisational commitment has attracted many different definitions (Mathieu & Zajac, 1990). For example, Becker (1960) explains organisational commitment as the tendency to persist in a course of action. Kanter (1968) describes it as the willingness of employees to give energy and loyalty to the organisation. Sheldon (1971) explains it as a positive evaluation of the organisation and the intention to work toward the organisation’s goals.

Buchanan (1974) views it as an affective attachment to the values and goals of an organisation, to an employee's roles in relation to the goals and values and to the organisation for its own sake, apart from its purely contributory worth. Porter, Steers, Mowday, and Boulian (1974) describe organisational commitment as the strength of an employee's identifications with and involvement in a particular organisation. Reichers (1985) views it as behaviour that is visible when employees are committed to existing groups in the organisation. Colarelli and Bishop (1990) see commitment to an organisation as the aspiration to stay with the organisation in order to develop professional and business associations.

The definition of organisational commitment by Allen and Meyer (1990) was adopted for the purposes of this study. Allen and Meyer (1990) describe organisational commitment as a psychological state that connects an employee to an organisation, thus reducing turnover. As indicated in Table 4.1, they recognised three elements of organisational commitment, namely affective commitment, continuance commitment and normative commitment. Affective commitment, as proposed by Allen and Meyer (1990), refers to the employees' emotional attachment to, identification with and involvement in the organisation. *Continuance* commitment refers to the costs employees associate with leaving the organisation. Normative commitment refers to the employees' feelings of obligation to remain with the organisation.

Table 4.1 below provides a summary of the three components of organisational commitment.

Table 4.1

*The Three Components of Organisational Commitment (Allen & Meyer, 1990)*

<b>Organisational commitment dimension</b>	<b>Definition</b>	<b>Motive for staying</b>	<b>Psychological state</b>
Affective commitment (higher level of organisational commitment)	Extent to which employees feel emotionally linked, identified and involved with the organisation	Want to stay	Desire

<b>Organisational commitment dimension</b>	<b>Definition</b>	<b>Motive for staying</b>	<b>Psychological state</b>
Continuance commitment (lower level of organisational commitment)	Extent to which employees remain with the organisation owing to the recognition of costs associated with leaving the organisation	Need to stay	Need
Normative commitment (moderate level of organisational commitment)	Extent to which employees feel they have a moral duty to stay with the organisation	Must stay	Obligation

It is clear from Table 4.2 that Allen and Meyer's (1990) definition of organisational commitment provides a rich, multidimensional approach. Moreover, this definition of organisational commitment is based on a psychological approach, which also has behavioural implications for the employee at the workplace (Allen & Meyer, 1990; Coetzee, 2005). This view of organisational commitment was thus adopted for the purposes of this study as it offers a more relevant, superior approach when compared to other definitions cited.

Table 4.2 below provides a summary of the definitions of organisational commitment.

Table 4.2  
*Summary of the Definitions of Organisational Commitment*

<b>Reference</b>	<b>View on commitment</b>
Becker (1960)	Described organisational commitment as the tendency to persist in a course of action.
Kanter (1968)	Viewed organisational commitment as the willingness of employees to give energy and loyalty to the organisation.
Sheldon (1971)	Described organisational commitment as a positive evaluation of the organisation and the intention to work toward the organisation's goals.

Reference	View on commitment
Buchanan (1974)	Viewed organisational commitment as an affective attachment to the values and goals of an organisation, to an employee's roles in relation to the goals and values, and to the organisation for its own sake, apart from its purely contributory worth.
Porter et al. (1974)	Described organisational commitment as the strength of an employee's identifications with and involvement in a particular organisation.
Reichers (1985)	Viewed organisational commitment as behaviour that is visible when employees are committed to existing groups within the organisation.
Colarelli & Bishop (1990)	Described commitment to an organisation as the aspiration to stay with it in order to develop professional and business associations.
Allen & Meyer (1990)	Described organisational commitment as a psychological state that connects an employee to an organisation, thus reducing turnover.

Buchanan's (1974) definition of organisational commitment shares similarities with Allen and Meyer's (1990) model of organisation commitment in terms of the affective component. All of the organisational commitment models listed in Table 4.2 view commitment as some form of loyalty towards or positive evaluation of the organisation. However, Reicher's (1985) view of organisational commitment seems abstract in the sense that commitment is described as form of loyalty to a specific group in the broader organisation.

#### **4.1.2 Theoretical models of organisational commitment**

It has been recognised that there are many different theoretical models of organisational commitment that exist in the literature. It is necessary to unpack these models because they will provide a theoretical explanation for the construct of organisational commitment. Allen and Meyer's model of commitment, Reicher's model of organisational commitment, O'Reilly and Chatman's model, Morrow's model of major commitment and Randall and Cote's commitment model will be explored in the section below.

#### 4.1.2.1 Allen and Meyer's model of organisational commitment

Allen and Meyer's (1990) three-component model of organisational commitment will be used in this study to explore the construct of organisational commitment because it has been subjected to extensive evaluation and forms the underpinning of the measuring instrument used for this study. Figure 4.1 below illustrates the three-component conceptualisation of organisational commitment.

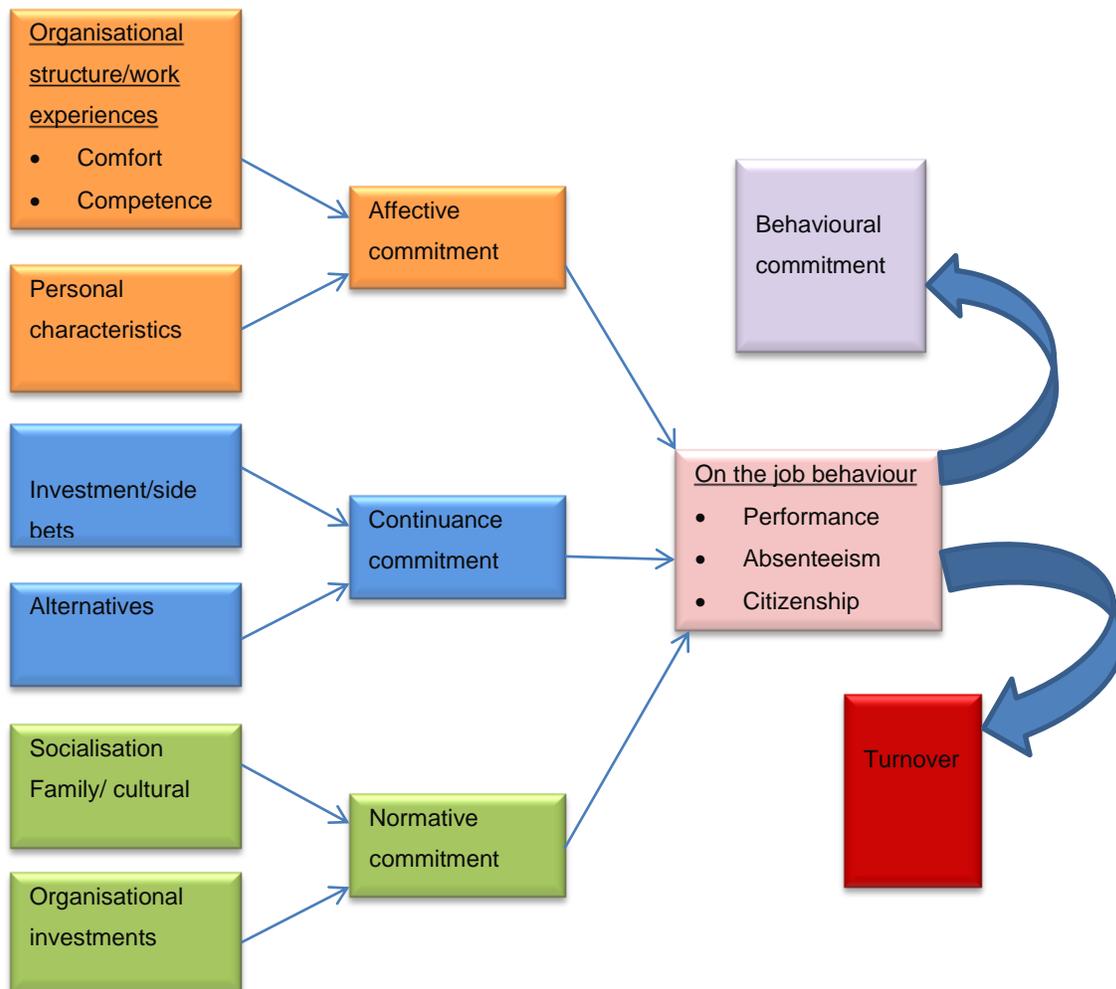


Figure 4.1. Three component model of organisational commitment (Meyer & Allen, 1991, p.68)

According to Allen and Meyer (1991), organisational commitment is a psychological state that distinguishes the association with the organisation, and which subsequently has consequences for the organisation. Meyer and Allen (1991) thus segmented organisational commitment into three components, namely affective, continuance and normative commitment.

## **Affective commitment**

Affective commitment represents an employee's emotional attachment to the organisation he or she is in (Meyer & Allen, 1997). In other words, employees who are committed to the organisation from an affective perspective continue the employment relationship because they want to (Eisenberger et al., 2010; Meyer & Allen, 1991). Beck and Wilson (2000) interestingly indicated that employees who are committed to the organisation at an affective level, see their personal employment with the organisation as being aligned to the organisation's values and goals. Moreover, Sheldon (1971) indicated that affective commitment can be seen as a type of attitude where the employee has some inclination, attachment or identity towards the organisation. Morrow (1993) supported this view and indicated that affective commitment can be viewed as a work-related attitude, where the employee demonstrates positive feelings towards the organisation. Research has shown that affective commitment can be influenced by the congruence between the employee's needs and actual experience in the organisation (Storey, 1995). In other words, during an organisational change process, if the employee needs or expects detailed communication during the process and the organisation is able to meet this need, he or she is more likely to have positive feelings about the change and may in fact want to be part of the change process (Gutierrez, Candela, & Carver, 2012; Tetrick, 1995). Furthermore, factors such as role clarity, feedback, participation, peer cohesion, management support and openness have been shown to influence an employee's affective commitment (Meyer & Allen, 1997). Change practitioners should therefore note these factors during a change process, which may in fact reduce turnover. Allen and Meyer (1990) indicated that employees' affective commitment is based on two things: (1) identification and the desire to establish a rewarding employment relationship with the organisation; and (2) internalisation, congruent goals and values between the employee and the organisation. In summary, affective commitment is the extent to which an employee identifies with the organisation (Allen & Meyer, 1990).

## **Continuance commitment**

Meyer and Allen (1997) viewed continuance commitment as the employees' awareness of the costs associated with leaving the organisation. The employee will evaluate the costs and risks associated with leaving the organisation, which has thus been viewed as calculative (Meyer & Allen, 1997). In the context of organisational change, the employee may consider leaving the organisation because of the uncertainty.

However, owing to the costs associated with him or her leaving, the employee may be more likely to stay and endure the change process. Meyer and Allen (1997) concur with this and state that employees with continuance commitment remain with the organisation because they need to, not because they want to, as in the case of affective commitment. Recent research has revealed that if employees experience higher levels of job satisfaction, they are more likely to remain with the organisation (Imam, Raza, Shah, & Raza, 2013).

Employees with continuance commitment are more likely to be unhappy during the change process and may in fact be more resistant to the change. In the case where the organisation may face retrenchment, employees with continuance commitment are more likely to consider economic value as fundamental. Change practitioners in this case will need to communicate the economic value of the retrenchment package, weighing up costs and risks upfront in their communication process (Beck & Wilson, 2000; Miao, Newman, Sun, & Xu, 2013). In other words, employees strengthen their continuance commitment based on extrinsic rewards, where the organisation's values and goals become of secondary interest to them. Employees with higher levels of continuance commitment may in fact pose a risk for the organisation in terms of turnover. For example, in the case where employees are offered more appealing employment elsewhere, they are more likely to leave the organisation on the basis that the profit to the employee outweighs the values and goals of the organisation. Tetrick (1995) describes continuance commitment as an exchange process where loyalty and performance are exchanged for extrinsic rewards. Change practitioners thus need to be mindful of employees with continuance commitment and constantly seek an approach to retain these employees.

### **Normative commitment**

Meyer and Allen (1997) describe normative commitment as an employee's feeling of obligation to remain with the organisation. In other words, the employee is more likely to hold internalised beliefs of obligation to the organisation which promote membership (Allen & Meyer, 1990). According to Meyer and Allen (1991), employees with normative commitment remain with the organisation because they feel they must. Employees remain with the organisation because they feel it is the moral thing to do, despite how much status the organisation provides over the years (March & Mannari, 1977; Meyer & Parfyonova, 2010).

According to Suliman and Iles (2000), employees with normative commitment are in fact strongly influenced by rules and regulations around the reciprocal obligation between the organisation and its employees. In other words, employees may feel an obligation if the organisation has invested in their development. This relationship has been identified by the social exchange theory, which indicates that an individual receiving some benefit may feel a desire to repay the benefit he or she has received (McDonald & Makin, 2000). In the context of organisational change, the employee may feel non-congruence between the new ways of working compared to the way things were previously done, but employees with normative commitment will be more likely to remain with the organisation owing to the investments the organisation may have made in them. Meyer and Allen (1991) attributed moral obligation to the employees' socialisation either in the organisation or society, where based on the norms the employee has gained, he or she is more likely to respond in kindness when a benefit is received.

It is clear from the discussion above that the employment relationship is complex, especially in a process of organisational change. This implies that organisational commitment as a multidimensional construct is better suited to the purposes of this study; moreover the benefits of organisational commitment go beyond reduced turnover in an organisation (Cohen, 2014). Organisational commitment has been conceptualised in many different ways, but Allen and Meyer's (1990) view of the construct offers a broader approach to understanding organisational commitment and has gained popularity over time. However, the Allen and Meyer (1990) model of organisational commitment has been criticised to differ in the significance to turnover implications (Jaros, 1995). One reason for this is that the Allen and Meyer (1990) model of organisational commitment views commitment as a psychological state that links an employee to the organisation, and it may therefore make turnover less likely.

#### *4.1.2.2 Reicher's (1985) model of organisational commitment*

The complexity of the multidimensionality of the construct of organisational commitment is further compounded by the notion that individuals may show different levels of commitment as explained by Reicher's (1985) model of organisational commitment levels. Figure 4.2 below illustrates this.

An employee with a *higher level of organisational commitment* is characterised by a strong recognition of the organisation's principles and values. The employee will make an effort to stay with the organisation. The desire to stay with the organisation suggests that there may be a stronger sense of affective commitment and this implies that the employee stays because he or she wants to and will make an effort to perform (Allen & Meyer, 1991; De Cuyper & De Witte, 2011; Rose, Kumar, & Pak, 2011; Reichers, 1986).

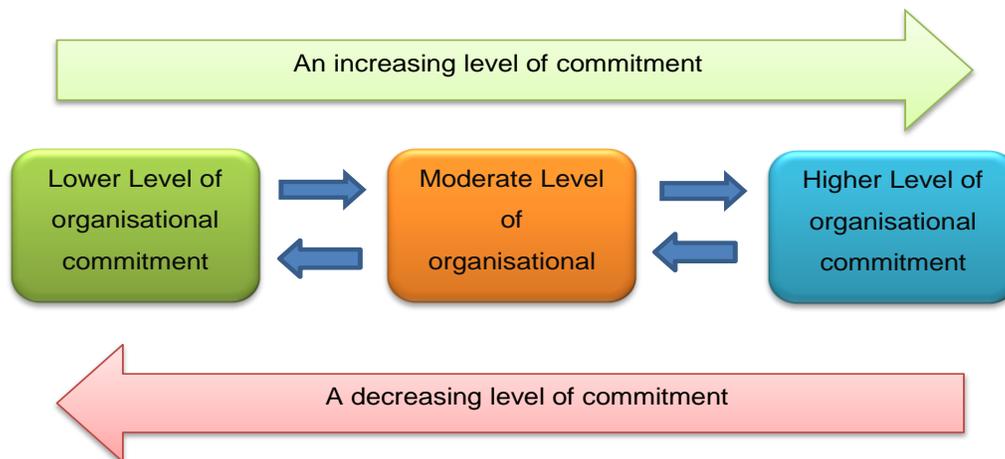


Figure 4.2. Levels of organisational commitment

*Moderate levels of organisational commitment* are characterised by a practical recognition of the organisation's principles and values, where the employee stays with the organisation because he or she has to. This level of commitment has been associated with normative commitment because the employee feels obliged to stay with the organisation (Allen & Meyer, 1991; Reichers, 1986).

*Lower levels of organisational commitment* are characterised by a lack of identifying with the organisation's principles and values, where the employee feels he or she needs to stay with the organisation. This level of commitment has been associated with continuance commitment, which implies the employee stays with the organisation because of the cost of leaving it (Allen & Meyer, 1991; De Coninck & Bachmann, 2011; Reichers, 1986).

It is clear from the aforementioned section, that the different dimensions of organisational commitment are associated with different levels of organisational commitment. However, one needs to recognise that the dimensions and levels of organisational commitment have consequences for the organisation, which can either be positive or negative. Employees with higher levels of organisational commitment are more likely to enhance performance and productivity for the organisation (De Cuyper & De Witte, 2011). However, employees with lower levels of organisational commitment are more likely to constrain performance and productivity in the organisation. Reichers (1985) model was viewed favourably in that it laid the ground work for the levels of organisational commitment to be conceptualised. However, it could be criticised for being abstract in that employees are seen to interact with groups in the organisation to which they remain committed.

#### *4.1.2.3 O'Reilly and Chatman's model*

O'Reilly and Chatman's (1986) model was developed on the hypothesis that organisational commitment in fact suggests an employee's position towards the organisation he or she works in. There were three dimensions of the model identified, namely compliance, identification and internalisation.

#### **Compliance**

According to O'Reilly and Chatman (1986), compliance refers to employees accepting the influence of others in order to gain specific extrinsic rewards. This dimension of commitment reveals itself when the attitude and behaviour of an employee are in congruence to gain some sort of reward and avoid punishment. Furthermore, there are no shared beliefs (O'Reilly & Chatman, 1986). According to Beck and Wilson (2000), organisational commitment in the compliance dimension is affiliated with continuance commitment, where the employee weighs up the associated costs and risks in order to remain with the organisation. This type of commitment is referred to as superficial attachment to the organisation (O'Reilly & Chatman, 1986).

## **Identification**

O'Reilly and Chatman (1986) posit that identification occurs when employees recognise an affiliation or involvement with the organisation. Identification has been associated with normative commitment (Meyer & Allen, 1997). Employees with higher identification are more likely to accept influence as a basis to build relationships with their peers. In other words, they assume the induced behaviour because of its association with a desired relationship (O'Reilly & Chatman, 1986). Furthermore, in identification, an employee may feel proud of being a part of the organisation, which also means that employees' desires may be adjacent to each other as they view behaviours' of colleagues as an important factor in continuing to work at the organisation (O'Reilly & Chatman, 1986).

## **Internalisation**

Internalisation occurs when employees have congruence with the organisation's values. Internalisation has been associated with affective commitment (Meyer & Allen, 1997). Internalisation occurs when employees accept influence because the induced behaviour is intrinsically rewarding. Interestingly, employees also consider that the thoughts and actions associated with the induced behaviour are internally rewarding. Employees with high internalisation adopt the induced behaviour because it is seen as congruent to their value system (O'Reilly & Chatman, 1986). It was noted that internalisation is more desirable when compared to compliance commitment, as there will be alignment of individual and organisational values, which may yield positive benefits for the organisation (O'Reilly & Chatman, 1986).

Lastly, as a strength noted in the literature, O'Reilly and Chatman's (1986) model provides a rich conceptual theoretical understanding to the underlying dimensions of psychological attachment (compliance, identification and internalisation) and has gained much attention over time. O'Reilly and Chatman's (1986) model also aligns to Allen and Meyer's (1990) model of organisational commitment and has been used to explore turnover in organisations. As a potential weakness of O'Reilly and Chatman's (1986) model, it may not take into consideration the changing nature of the psychological bond of the employee based on personal characteristics.

#### 4.1.2.4 Morrow's model of major commitment

Morrow (1993) suggested five major components of commitment that have a mutual influence. These components are affective commitment, continuance commitment, protestant work ethic, career commitment and job involvement, and are divided into two groups, which are illustrated below in Figure 4.3.

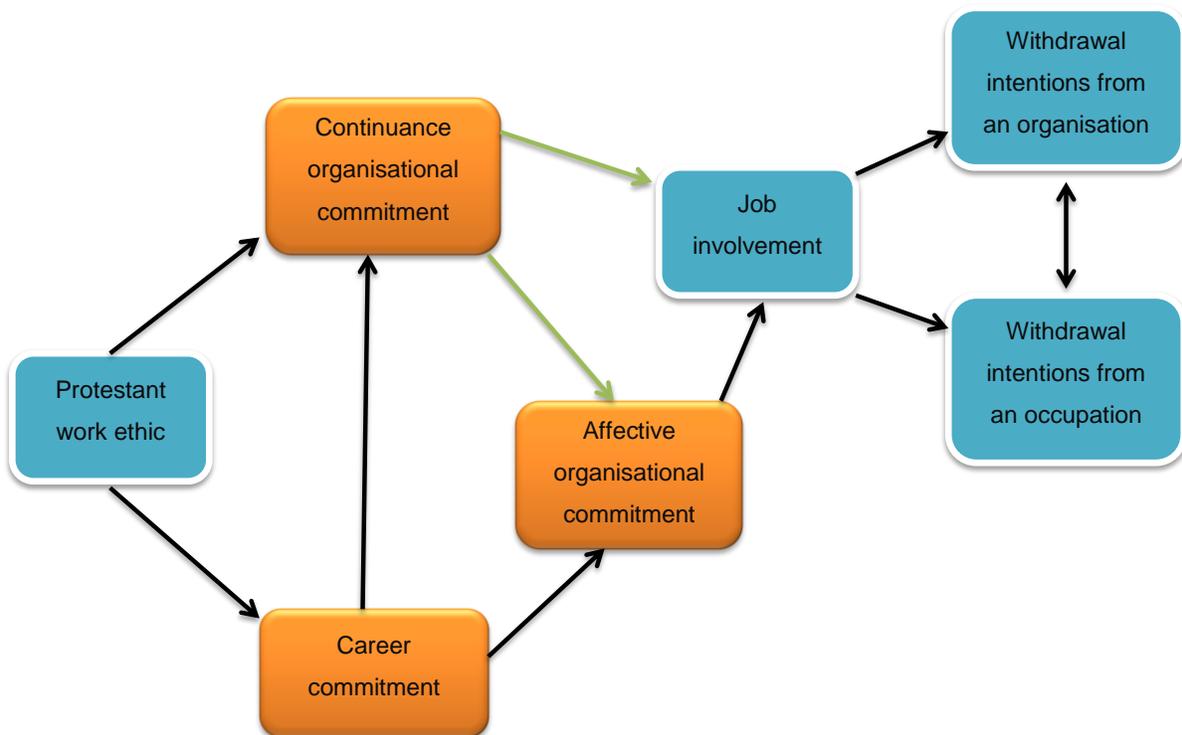


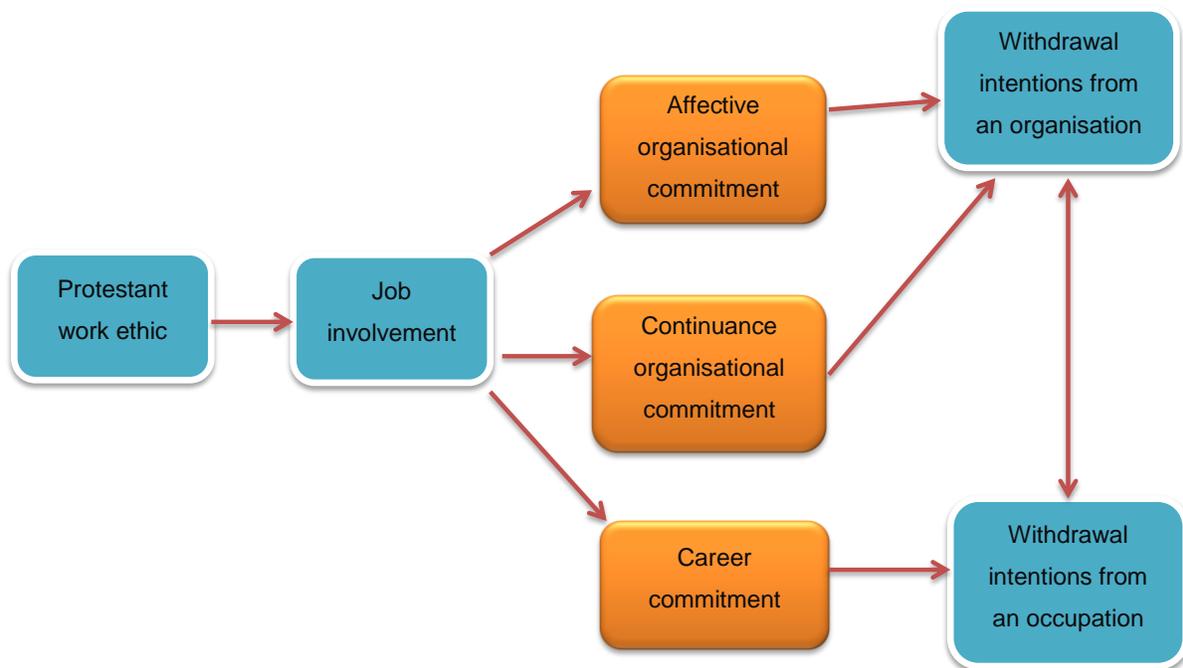
Figure 4.3 Morrow's model of major commitment (Carmeli & Gefen, 2005)

The first group of commitments refers to the protestant work ethic and is seen to influence work thoughts with no relation to the organisation the employee is based in. The second group of commitments refers to continuance and affective commitment. This group of commitments may be directly influenced by the organisation the employee is based in. Career commitment is associated with both continuance and affective commitment, where both of these commitments influence job involvement. Morrow (1993) posits that there is in fact common relatedness amongst the various commitments indicated.

Lastly, Morrow's (1993) model of major commitment has been noted to be comprehensive as it describes the empirical relationship between five forms of commitment (affective commitment, continuance commitment, protestant work ethic, career commitment and job involvement). As a weakness of the model, normative commitment has been excluded.

#### 4.1.2.5 *Randall and Cote's commitment model*

The model by Randall and Cote (1991) depicts that job involvement influences the relationship between protestant work ethic, affective and continuance commitment. However, commitment is influenced by job involvement. Figure 4.4 illustrates the model.



*Figure 4.4.* Randall and Cote's commitment model (Carmeli & Gefen, 2005)

Randall and Cote's (1991) commitment model depicts that job involvement is an intervention of individual employee traits. Accordingly, the employee's job involvement is largely dependent on the value he or she attaches to his or her occupation. In other words, if employees attach a low value to their occupation, then job involvement is likely to be low. By contrast, where employees attach a high value to their occupations, then job involvement is likely to be high.

Lastly, as strengths of Randall and Cote's (1991) commitment model, it describes organisational commitment in a multifaceted approach and it takes into consideration affective and continuance commitment. However, this model places a lot of emphasis on an employee's job involvement which can be seen as a weakness as organisational commitment is far more complex.

#### *4.1.2.6 Evaluation of models*

This section will provide a critical evaluation of the various models of organisational commitment.

Table 4.3 provides an integrated view of the various theoretical models of organisational commitment. The models cited above share one commonality, that is, they are multidimensional. However, some differences between the models have been noted. For example, Allen and Meyer's (1990) model of organisational commitment is based on a psychological approach. The psychological approach refers to a process of identification, where the organisation has to foster in its employees' feelings of commitment to their job. However, O'Reilly and Chatman's (1986) and Reichers' (1985) models are based on an attributions approach. This approach conceptualises commitment as a binding of the employee to behavioural acts, which occur when employees attribute an attitude of commitment to themselves after engaging in behaviours that are unequivocal (Reichers, 1985). Morrow's (1993) model of commitment is based on Randall and Cote's (1991) model. However, there are differences between the two models. For example, the literature has indicated that the role job involvement plays in Morrow's model is different when compared to Randall and Cote's model. Morrow (1993) indicated that job involvement is highly dependent on situational factors, instead of individual traits or features, as held by Randall and Cote's model. However, it was acknowledged that these two models can be integrated. Carmeli and Gefen (2005) found that Randall and Cote's model was superior when compared to Morrow's model. Table 4.3 below provides an integrated summary of the various organisational commitment models.

Table 4.3

*Integrated Summary of the Various Organisational Commitment Models*

<b>Allen and Meyer's (1990) model of organisational commitment</b>	
Affective	The employee's emotional attachment to, identification with and involvement in the organisation.
Continuance	A consciousness of costs associated with leaving the organisation.
Normative	A feeling of obligation to continue employment with the current organisation.
<b>Reichers' (1985) model of organisational commitment</b>	
Lower level of commitment	Lack of association with the organisation's principles and values. Associates a high cost to leaving the organisation.
Moderate level of commitment	Practical recognition of the organisation's principles and values. Stays with the organisation because he or she has to.
Higher level of commitment	Strong recognition of the organisation's principles and values.  Employee stays with the organisation out of own desire.
<b>O'Reilly and Chatman's (1986) model</b>	
Compliance	Instrumental involvement for specific extrinsic rewards.
Identification	Attachment based on a need for affiliation with the organisation.
Internalisation	Involvement based on congruence between employee and organisational values.
<b>Morrow's (1993) model of major commitment</b>	
Affective commitment	Includes, commitments that are predisposed directly by the organisation, that the employee is part of.
Continuance commitment	
Protestant work ethic	Includes commitments that influence work attitude with no relationship to the organisation of which the employee is part.
Career commitment	
Job involvement	

### **Randall and Cote's (1991) commitment model**

Job involvement an intervention of employee traits.

Job involvement dependent on the value employees attach to their jobs.

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Source: Adapted from Coetzee (2005)

It is evident from the theoretical models listed in Table 4.3 that organisational commitment can be described from an attitudinal, behavioural and motivational perspective. Meyer, Allen and Gellatly (1990) postulate that organisational commitment as an attitude is characterised by positive affective and cognitive components about the organisation. From a behavioural perspective, Reichers (1985) indicated that organisational commitment can be observed when employees are committed to groups in the organisation. From a motivational perspective, O'Reilly and Chatman's (1989) model viewed organisational commitment as an employee's psychological bond to the organisation which includes internalisation, compliance and identification.

#### **4.1.3 Variables influencing organisational commitment**

In this section, the variables, age, gender, race and employment level and their influence on organisational commitment are discussed.

##### **4.1.3.1 Age**

Baron and Greenberg (1990) showed that older employees tend to report higher levels of organisational commitment than younger employees. Ferreira and Coetzee (2010) found older employees to be affectively and normatively more committed to their organisations than their younger counterparts. Allen and Meyer (1993) and Buchanan (1974) also reported age to be positively correlated with an employee's organisational commitment. This implies that older employees may be more committed to an organisation than younger employees.

#### 4.1.3.2 *Race*

Coetzee, Schreuder, and Tladinyane (2007), Ferreira and Coetzee (2010) and Lumley (2009) did not find significant differences between organisational commitment levels and the different race groups. However, Coetzee et al. (2007) reported that African black participants in the service industry appear to be more committed to an organisation when compared to employees from other race groups because it affords them the opportunity to express their sense of service or dedication to the people constituent of the business.

#### 4.1.3.3 *Gender*

According to Coetzee et al. (2007), male employees in the service industry appear to be committed to the organisation because it provides them with job autonomy, while female employees seemingly tend to be especially committed to the organisation that respects personal and family concerns. Conversely, female employees who seem to perceive less access to opportunities for job development and mentoring in male-dominated occupations may as a result be less committed to their organisations (Lai, Lin, & Leung, 1998; Martins & Coetzee, 2007; Ohlott, Ruderman, & McCauley, 1994). However, another study reported that females are just as committed as males (Marshall & Bonner, 2003). Allen and Meyer (1997) explained that gender is in fact a significant variable to be considered in the construct of organisational commitment. However, Mathieu, and Zajac (1990) argued that gender differences noted in organisational commitment are attributed to different work characteristics and experiences. In a recent study conducted by Van Dyk, Coetzee, and Tebele (2013), it was found that females scored lower on affective commitment when compared to male counterparts. This indicates that gender and affective commitment may be unrelated.

#### 4.1.3.4 *Employment level*

It has been found that employees in higher employment levels will experience higher organisational commitment. This is because higher status in an organisation leads to greater motivation. Employees at a higher level in the organisation are more involved in decision making, where they are recognised for their competence and value contribution. Employees also have more autonomy on the job, which leads to increased levels of affective commitment (Coetzee, 2005).

In a recent study by Van Dyk, Coetzee, and Tebele (2013) it was found that senior management level employees experienced higher levels of continuance commitment which were attributed to higher costs being associated with leaving the organisation.

Table 4.4 below summarises the variables influencing organisational commitment.

Table 4.4

*Summary of Variables Influencing Organisational Commitment*

<b>Variable</b>	<b>Reference</b>
Age and organisational commitment	Older employees have higher organisational commitment (Allen & Meyer, 1993; Baron & Greenberg, 1990; Buchanan, 1974; Ferreira & Coetzee, 2010).
Race and organisational commitment	No significant differences between race and organisational commitment (Coetzee et al., 2007; Ferreira & Coetzee, 2010; Lumley, 2009).  African black employees are more committed when compared to other race groups (Coetzee et al., 2007).
Gender and organisational commitment	Male employees are more committed compared to female employees (Coetzee et al., 2007; Lai et al. 1998; Martins & Coetzee, 2007; Ohlott et al., 1994).  Female and male employees are equally committed (Marshall & Bonner, 2003).
Employment level and organisational commitment	Employees in higher employment levels have higher organisational commitment (Coetzee, 2005; Van Dyk et al., 2013).

It is evident from the literature that there is a relationship between the biographical variables (age, race, gender and employment level) and organisational commitment. In terms of age and organisational commitment, older employees seem to have higher organisational commitment when compared to younger employees (Allen & Meyer, 1993; Baron & Greenberg, 1990; Buchanan, 1974; Ferreira & Coetzee, 2010).

In terms of race and organisational commitment, there were no significant differences noted (Coetzee et al., 2007; Ferreira & Coetzee, 2010; Lumley, 2009). However, in terms of gender and organisational commitment, males reported higher levels of organisational commitment when compared to females (Coetzee et al., 2007; Lai et al. 1998; Martins & Coetzee, 2007; Ohlott et al., 1994). In terms of employment level, senior employees reported higher levels of organisational commitment (Coetzee, 2005). Although a large body of literature exists in terms of biographical variables and organisational commitment, there is a paucity of research in the South African FMCG industry. Hence the relationship between gender and organisational commitment was further explored in this study. Moreover, Meyer and Allen (1997) cautioned that there is no consistent evidence to suggest a unified interpretation.

#### **4.1.4 Implications for change management practices**

Organisations are continuously faced with challenges of globalisation and rapid changes in the 21st-century workplace (Caldwell, 2011; Choi, 2011). In order for the organisation to adapt to the rapid rate of change, employees need to remain committed. Accordingly, the organisation is faced with the challenge of managing employees' organisational commitment throughout the change process (Vakola & Nikolaou, 2005). Prior research suggests that organisational commitment is instrumental in achieving successful organisational change outcomes, and the more the employee is committed to the organisation, the more he or she is willing to accept change (Iverson, 1996). Furthermore, research has shown that organisations first need to understand organisational commitment in order to manage it amongst employees (Neves, 2011; Raukko, 2009). However, the organisation does not always take time to understand the human element as the rate of change in organisations occurs at a rapid pace. Research has lent support to this view and has indicated that organisations are adept at planning the technical and structural facets of change, but poor at recognising, supporting and incorporating the human side into change management agenda (Demers, Forrer, Leibowitz, & Cahill, 1996; Shin et al., 2012). For example, typical barriers to change were cited in the literature such as disruption of personal relationships, perceived threat to status, preference for the status quo, job role ambiguity, aspects of the job, work overload, changes in management and slow integration, which have been shown to lead to high stress levels and lower organisational commitment (Coetzee & De Villiers, 2010; Smither, 1994).

Some of the techniques cited to overcome these barriers to change (disruption of personal relationships, perceived threat to status, preference for the status quo, job role ambiguity, aspects of the job, work overload, changes in management and slow integration) include involving employees in the change process, using informal leaders, a clear consistent communication plan and using change practitioners to create a new common vision for the workplace that will make the change part of the organisation's culture (Bennett & Durkin, 2000). Bennett and Durkin (2000) suggested that the techniques cited above have a common goal of maintaining employee organisational commitment during organisational change. Other research revealed leadership as an antecedent to gaining organisational commitment during a change process (Keng, Ruedy, Johnson, & Avolio, 2013; Parish, Cadwallader, & Busch, 2008). For example, aligning the change initiatives with the organisation's values and vision was associated with higher levels of affective, continuance and normative organisational commitment (Keng et al., 2013; Parish et al., 2008). The importance of leadership during change was also shown by Herold, Fedor, Caldwell, and Liu (2008). They found that leadership which models desired behaviours (leading instead of telling) is more successful in gaining organisational commitment. Moreover, change leadership behaviours (the reason change was necessary was made clear to employees upfront in the change process, thus building a broad coalition to support the change) were positively correlated to gaining employee's organisational commitment

Human resource management practices were cited in the literature as another key variable to be considered in gaining employee's organisational commitment during change (Conway & Monks, 2008). For instance, training, empowerment and participation were found to influence and employee's affective commitment to change because these practices build employee efficacy and ownership of the change initiative (Conway & Monks, 2008). Herscovitch and Meyer (2002) reported that normative commitment may actually be influenced by human resources management practices, such as career development and training that employees perceive as valuable during the change the process. Compensation was found to influence continuance commitment during organisational change (Conway & Monks, 2008). Organisations are likely to recognise this, but they may not always find this option viable because it may not yield sustainable, long-term results.

For example, Conway and Monks (2008) indicated that most human resource management practices are characterised by a top-down approach, thus hindering employee involvement and participation in the change process. It was further noted that the top-down approach is directly controlled by senior management, which they can reconsider in future change endeavours. It is evident from the above that the role of employee commitment in the change management process can therefore be argued to be a pivotal one, both from the perspective of consolidating change and from that of the likely future success of ongoing change programmes. In summary, this section discussed conceptualisation of theoretical models relating to organisational commitment. It became more apparent that an employee's psychological attachment (organisational commitment) plays a vital role in the change process. For example, understanding an employee's affective, continuance and normative commitment will impact on the outcomes of a change process. If an employee has higher levels of continuance commitment, he or she will be more likely to weigh up the costs and benefits of staying with or leaving the organisation (Allen & Meyer, 1990). In other words, change practitioners when communicating the change will need to be aware of what drives commitment for an employee and communicate the change that will strengthen an employee's commitment to the organisation.

This section also discussed variables impacting on organisational change. In terms of age and organisational commitment, older employees were found to have higher levels of organisational commitment (Buchanan, 1974; Baron & Greenberg, 1990). Ferreira and Coetzee (2010) and Allen and Meyer (1993) corroborated the earlier findings that older employees may in fact have higher organisational commitment. In terms of race and organisational commitment, it became apparent that there may be differences between these variables (Coetzee et al., 2007). In terms of gender and organisational commitment, there were some significant differences noted between male and female employees (Lai et al., 1998; Martins & Coetzee, 2007; Ohlott et al., 1994). However, another recent study by Van Dyk et al. (2013) found that gender and organisational commitment may in fact be unrelated. The present study will further investigate the biographical variables (age, gender, race and employment level) in relation to organisational commitment.

## **4.2 JOB EMBEDDEDNESS**

In this section the conceptualisation of job embeddedness will be discussed. The theory of job embeddedness and variables impacting on job embeddedness will also be explained.

### **4.2.1 Conceptualisation**

According to Mitchell et al. (2001a), job embeddedness was developed to provide a more comprehensive view of the employment relationship (between the employee and employer) when compared to traditional attitudinal measures such as commitment or satisfaction. Feldman and Ng (2007) supported this view and focused on why employees stay in their jobs despite opportunities presenting themselves elsewhere. According to Holtom et al., (2006), job embeddedness represents a wide-ranging set of influences on an employee's decision to stay in the job. Mitchell et al. (2001a) also showed that there are several connectors that bond an employee and his or her family in a social, financial and psychological system. This definition of job embeddedness was used in this study because it provides an encompassing view of the construct. The connectors that bond the employee and his or her family in a social, financial, psychological system include on-the-job factors, namely bonds with work peers, the fit between the employees' skills in relation to the job and organisation-sponsored community-service activities. Job embeddedness also includes off-the-job factors such as family, community and personal commitments. Cohen (1995) showed that non-work commitments such as hobbies and family influence an employee's attitude towards the job and attachment. Lee and Maurer (1999) found that spouses and children were strong predictors of turnover.

Metaphorically, job embeddedness is comparable to a net or a web in which one can become stuck. An employee who is highly embedded has many links that are close together (Mitchell et al., 2001a). Interestingly, research by Holtom et al. (2006) showed that job embeddedness is in fact a predictor of job satisfaction, organisational commitment and employee performance on the job. Mitchell et al. (2001a) developed the organisational embeddedness construct. This construct integrated retention with turnover in an attempt to provide an explanatory view of external reasons employees leave organisations. Accordingly, the multi-dimensional construct of job embeddedness provides a wide range of factors that affect employee retention (Zhang & Griffeth, 2013).

These factors which influence job embeddedness include work and social non-work attachments that are developed over time during the employment relationship (Mitchell & Lee, 2001; Steers & Mowday, 1981).

## **4.2.2 Theory**

The job embeddedness model (Mitchell & Lee, 2001) will be discussed in this section.

### *4.2.2.1 Job embeddedness model*

The job embeddedness model (Mitchell & Lee, 2001) explains factors and circumstances that attract employees to stay with an organisation. In other words, the job embeddedness model (Figure 4.5) assesses influences in terms of employee retention. In the job embeddedness model, the relationship to on-the-job aspects (the organisation) and off-the-job aspects (the community) are predictors of turnover (Mitchell & Lee, 2001). In the organisation and community, an employee has three aspects of job embeddedness, namely (1) the *links* that employees have both on and off the job; (2) the *fit* employees perceive between their self-concept and the environment they live and work in; and (3) the *sacrifices* that employees would make in giving up their job. An employee is embedded in his or her job when multiple links exist between the organisation and community; and when the employees feel that they have too much too sacrifice if they either leave the organisation or community (Mitchell et al., 2001a). Figure 4.5 below illustrates the job embeddedness model.

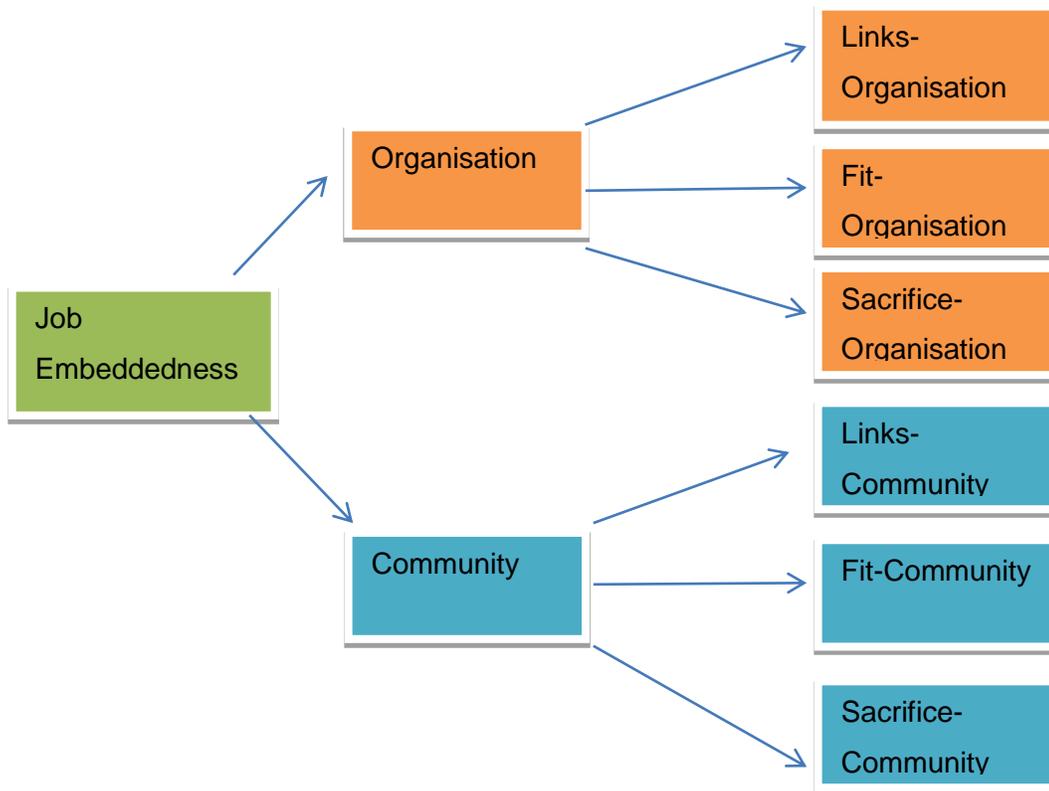


Figure 4.5. The job embeddedness model (Mitchell & Lee, 2001, p. 8-9)

### Organisation and community links

Links are characterised as formal or informal influences between an employee, and organisation or other people in the community. It is suggested that the higher the number of links between the employee and the organisation or community, the more an employee is bound to the job and the organisation or community (Mitchell et al., 2001a). It should be recognised that differences exist between organisation and community links. An organisation link may refer to connections between supervisors and peers whilst community links may refer to families, relatives and peers spending quality time together on holidays, weekdays and weekends. Links can thus be described as discernible connections (Mitchell et al., 2001a). Lastly, employees have many links between the various aspects of their lives (either in the organisation or community), and leaving their job and perhaps their home may require the rearrangement of some of these links. Employees with a greater number of links will acquire greater costs (Mitchell et al., 2001a).

## **Organisation and community fit**

Fit has been defined as the employee's perceived compatibility with an organisation and the environment (Mitchell & Lee, 2001). Two types of fit have been acknowledged, namely the fit with the employee's organisation (my goals are congruent to the organisation's goals) and fit with the community (the community I live in has the best food which I love) (Mitchell et al., 2001a). Based on the above, an example of high fit in the organisation would be the employee valuing and enjoying alcohol while working for an organisation that manufactures and distributes alcohol. Another example of high community fit would entail an employee enjoying golf as a hobby and as such living in a community with excellent golf courses which afford him or her more opportunities to play golf. In addition, an employee will consider how well he or she fits into the organisation, community and surrounding environment. The higher the fit, the higher the likelihood that an employee will feel embedded in the organisation and/or community (Mitchell et al., 2001a). O'Reilly and Chatman (1986) found that a misfit with employee and organisational values leads to higher levels of voluntary turnover. Thus fit is considered important for retention in an organisation.

## **Organisation and community sacrifice**

Sacrifice refers to the perceived cost of material or psychological benefits that may be forfeited by leaving one's job or community (Mitchell et al., 2001a). An example of organisational sacrifice would entail giving up peers, an interesting project or promotion. In terms of community sacrifice, one example could mean leaving behind colleagues in the neighbourhood where strong relationships were forged or an opportunity to lead the community monthly forums. The more an employee would need to give up or sacrifice when leaving, the more difficult it would be to leave the organisation and or community (Mitchell et al., 2001a). It is evident from the literature that job embeddedness is applicable to both the organisation and community (Mitchell & Lee, 2001). Moreover, the dimensions of links, fit and sacrifice are considered both on and off the job. As such, job embeddedness encompasses six dimensions (Mitchell et al., 2001a). Off-the-job embeddedness is deemed to be more important when relocation for the employee may be concerned. It may even be necessary in situations where the employee is required to change jobs. If employees are embedded, they may eliminate job alternatives that require relocation from the alternatives they are presented with (Mitchell et al., 2001a).

In other words on-the-job and off-the-job factors may impact decision making for the employee, which will in turn affect turnover and retention (Zhang & Griffeth, 2013). Research on job embeddedness has been extended to include variables other than voluntary turnover. Lee, Mitchell, Sablinski, Burton, and Holtom (2004), for example, examined additional organisational outcomes of embedded organisations. They hypothesised that employees who are embedded on the job would be more likely to display higher job performance because these employees are socially involved in the organisation, and thus are likely to cooperate. Ng and Feldman (2010) further extended on job embeddedness research by exploring its impact on innovation-related behaviours. They examined three types of innovation-related behaviours: (1) generating new ideas; (2) sharing ideas with peers; and (3) working to execute those innovations. Ng and Feldman (2010) hypothesised that job embeddedness would be positively related to innovation-related behaviours because embeddedness fosters a strong sense of obligation among employees to contribute fully to employers. In support of their hypothesis, they found that job embeddedness was positively related to all three types of innovation related-behaviours. They concluded that embedded employees were motivated to move forward the organisation's best interests.

In summary, this section discussed the conceptualisation and theory of job embeddedness. From this perspective, it is clear that job embeddedness is a multidimensional construct which encompasses links, fit and sacrifice (both on and off the job), which are critical when managing change in an organisation. It has also been shown to influence an employee's psychological attachment to the organisation, which in turn influences retention and sustainability of change initiatives (Mitchell et al., 2001a). For example, when an organisation undergoes restructuring, and employees are offered new jobs, misfit with the new job could result in turnover for the organisation (O'Reilly & Chatman, 1986). In the case of sacrifice, if employees feel they have a lot to give up when considering new job alternatives, the decision-making process becomes more difficult (Mitchell et al., 2001a). Change practitioners therefore need to be aware of the psychological attachment (job embeddedness) of the employee.

### **4.2.3 Variables influencing job embeddedness**

In this section, the variables, age, gender, race and employment level and their influence on job embeddedness will be discussed.

#### *4.2.3.1 Age*

In a study conducted by Tanova and Holtom (2008), it was found that younger employees are more likely to take risks at the beginning of their careers, and accordingly they are more likely to accept positions that are below their abilities and expectations at the beginning of their career and move on to better jobs when those jobs become available. This implies that younger employees may in fact have lower job embeddedness compared to older employees, as they may have fewer links, fit and sacrifices to make. Research by Coetzee and Schreuder (2008) suggested in this regard that employees in their early adulthood life phase tend to desire work situations in which they are allowed fewer organisational constraints, which allow them to develop their professional competence freely. These employees also tend to be active novices who require ongoing training and development opportunities through on-the-job experiences that enable them to develop their capabilities.

#### *4.2.3.2 Gender*

Some studies found no significance differences between gender and job embeddedness (Mitchell et al., 2001a; Tanova & Holtom, 2008). However, research by Van Dyk (2011) found that female employees revealed lower levels of affective commitment, person-organisation fit and total perceived job embeddedness when compared to their male counterparts. The female employees also showed a lower preference for career opportunities. This result suggests that the female employees encountered a lower level of emotional attachment to their organisation, because they perceived a lower fit with the organisation and thus experienced lower levels of job embeddedness compared with their male counterparts (Van Dyk, 2011).

#### 4.2.3.3 Race

Recent research reported that no significant differences exist between perceived job embeddedness and race (Coetzee et al., 2007; Ferreira & Coetzee, 2010; Lumley, 2009).

#### 4.2.3.4 Employment level

Research by Van Dyk (2011) found that employees at senior management level revealed higher levels of job embeddedness in terms of fit and sacrifice when compared to employees in other employment level groups. This finding by Van Dyk (2011) suggests that employees at a senior level will typically experience higher fit because of their level of education and complexity in the job, which demands more innovation-related behaviours. It was also reported that higher-level employees earn higher salaries and thus experience higher levels of sacrifice because they feel they would have to sacrifice a lot more (Holtom et al., 2006; Van Dyk, 2011). Management level employees when compared to senior management employees showed lower levels of job embeddedness in terms of sacrifice. They perceived fewer costs when leaving the organisation (Van Dyk, 2011).

Table 4.5 summarises the variables that influence job embeddedness.

Table 4.5

#### *Summary of Variables Influencing Job Embeddedness*

<b>Variable</b>	<b>Reference</b>
Age and job embeddedness	Younger employees have lower job embeddedness (Coetzee & Schreuder, 2008; Tanova & Holtom, 2006).
Gender and job embeddedness	No differences exist between gender and job embeddedness (Mitchell et al., 2001a; Tanova & Holtom, 2006). Female employees have lower job embeddedness when compared to male employees (Van Dyk, 2011).

Variable	Reference
Race and job embeddedness	No significant differences exist between race and job embeddedness (Coetzee et al., 2007; Ferreira & Coetzee, 2010; Lumley, 2009).
Employment level and job embeddedness	Employees on a senior level have higher levels of job embeddedness (Holtom et al., 2006; Van Dyk, 2011).

It is evident from Table 4.5 that a relationship exists between biographical variables (age, gender, race and employment level) and job embeddedness. In terms of age and job embeddedness, younger employees reported lower job embeddedness when compared to older employees (Coetzee & Schreuder, 2008; Tanova & Holtom, 2006). In terms of gender and job embeddedness, no differences were noted (Mitchell et al., 2001a; Tanova & Holtom, 2006). In terms of race and job embeddedness no differences were found (Coetzee et al., 2007; Ferreira & Coetzee, 2010; Lumley, 2009). In terms of employment level and job embeddedness, senior employees reported higher levels of job embeddedness when compared to employees in junior positions (Holtom et al., 2006; Van Dyk, 2011). Although there is research on the relationship between biographical variables (age, gender, race and employment level) and job embeddedness, there is hardly any research on this topic in the South African FMCG industry – hence the researcher’s desire to explore this relationship further in the current study.

#### 4.2.4 Implications for change management practices

Mitchell and Lee (2001) developed the concept of job embeddedness to clarify why people stay with their organisations. It was argued that employees become enmeshed in a web of connections in an organisation and/or community that make it difficult for them to leave their organisation (Mitchell et al., 2001a). Specifically, it was indicated that job embeddedness is made up of three components, namely fit links and sacrifice, which include both on- and-off-the job factors. When organisational change occurs, an employee’s job embeddedness will be affected. For example, organisational change on most occasions implies job insecurity and as such it was found that job insecurity would negatively influence job embeddedness, which could imply that the employees’ intention to remain with the organisation becomes threatened. Conversely, job security would have a positive impact on job embeddedness, and could thus influence voluntary turnover positively (Murphy, Burton, Henagan, & Briscoe, 2013).

Moreover, Holtom et al. (2006) found that job embeddedness mediates the relationship between job insecurity and intentions to remain with the organisation and organisations should thus be advised to take steps to engage in long-term career development with their employees or establish strong mentoring or coaching programmes during or after the change process to assist employees with the transition (Holtom et al., 2006; Mitchell, 2001). Another significant consideration is that change practitioners communicate with employees about changes that may influence perceptions of threat and feelings of loss of control associated with the change. Hence understanding the dynamics of the employee and his or her job embeddedness may motivate organisations to facilitate greater employee involvement and change the way that training and socialisation occur (developing links, perceptions of sacrifice, fit) (Holtom et al., 2006; Mitchell et al., 2001b).

For example, *links* in the organisation may refer to the number of years the employee has worked for the organisation. During the change process, change practitioners could emphasise the valuable input an employee with long tenure (higher links to the organisation) could bring to training or coaching newer employees going through the change. Consequently, the employee's links may be strengthened in the change process (Mitchell et al., 2001a). Change practitioners could also highlight *fit* during the change process. For instance, fit to the organisation could refer to "my values are compatible with the organisation's values". Change practitioners should thus take time to understand employee values, where the new organisational change values could be communicated in alignment with existing employee values. Employees will be more likely to feel higher fit to the organisation (Mitchel et al., 2001). Sacrifice refers to what the employee would have to give up when leaving the organisation and includes both material and psychological benefits (Mitchell et al., 2001a). Accordingly, during a change process, factors considered as a benefit to the employee should be understood at individual level. Change practitioners need to communicate upfront potential benefits that may be retained after the change is initiated. For example, if an employee considers his or her salary with medical aid as important, the organisation needs to emphasise that none of these benefits would be forfeited by the change.

In this way, the employee will view leaving the organisation as a higher sacrifice to make, which would yield higher intention to remain with the organisation, despite the changes (Mitchel et al., 2001). Community fit, links and sacrifice should also be considered by the organisation embarking on the change. Since the decision to leave the organisation is also influenced by social relationships, family and networks within the community. Thus change practitioners need to engage with the employee during one-on-one consultation, highlighting fit, links and sacrifices the employee may have to the community (Holtom et al., 2006).

In summary, this section discussed the conceptualisation and the theoretical models relevant to job embeddedness. Variables impacting on job embeddedness and implications for change management practices were also explained. It became clear that an employee's psychological attachment (job embeddedness) is a vital variable to be considered. Job embeddedness by theory is a multidimensional construct that offers change practitioners valuable insights into managing change. Links, fit and sacrifice (both on- and off the job) will inform whether change outcomes are successful or not. For example, the links an employee has with either the organisation or community will inform whether the employee is open to the change or not. In such instances, links will inform whether the employee remains with the organisation or leaves. In other words, an employee's psychological attachment (job embeddedness) will inform turnover, retention and change practices (Mitchell et al., 2001a). Biographical variables (age, gender, race and employment level) seem to influence an employee's job embeddedness (Coetzee & Schreuder, 2008; Holtom et al., 2006; Mitchell et al., 2001a; Tanova & Holtom, 2008; Van Dyk, 2011). This study will further investigate the link between biographical variables (age, gender, race and employment level) and job embeddedness.

### **4.3 INTEGRATION: THE ROLE OF ORGANISATIONAL COMMITMENT AND JOB EMBEDDEDNESS IN THE STRESS AND ATTITUDES TO CHANGE RELATIONSHIP**

Globalisation, an ongoing need for innovation and changes in demand patterns in the market require FMCG organisations to remain competitive (Caldwell, 2011; Mason, 2008; Slabbert & De Villiers, 1998; Soltani et al., 2007; Supply chain foresight, 2008). As a result, successful change management in organisations becomes crucial. As such, employees should become the focal point for change practitioners in 21st-century organisations; however, this is not always the case. Research is consistently indicating that most change interventions fail due to lack of consideration for the human element (Burnes, 1996; Bhagat et al., 2012; Vakola & Nikolaou, 2005). Accordingly, it is predicted that organisational change yields stress for the employee, and consequently negative attitudes towards the change are adopted (Vakola & Nikolaou, 2005). Empirical results suggest that organisational commitment may in fact mediate the relationship between stress and attitudes towards change and job embeddedness mediates the feelings of job insecurity and turnover (Karatepe & Shahriari, 2014; Murphy et al., 2013; Vakola & Nikolaou, 2005). As such, in the present study it was hypothesised that psychological attachment (organisational commitment and job embeddedness) mediates the relationship between work stress and attitudes towards change. The conservation of resources (COR) theory was used as a theoretical framework in this study to explain the role of psychological attachment (organisational commitment and job embeddedness) in the relationship between work stress and attitudes towards change (Hobfoll, 1989).

#### **4.3.1 Conservation of resources theory**

Hobfoll (1989) theorised that employees engage in a continuous scuffle to protect and invest resources to meet the demands of their lives, both at work and away from work. The conservation of resources theory has two main principles, namely the primacy of loss and the other referred to as the resource investment (Hobfoll, 1989). Both principles centre on resources, which are defined as objects, personal characteristics, conditions or energies that are valued by the employee or that serve as a means for attainment of these objects, personal characteristics, conditions, or energies (Hobfoll, 1989). Employees experience loss more severely than they experience gain. Because of the perseverance experienced when facing resource loss, employees possess a strong motive to conserve, protect and accumulate resources.

However, they also retain a strong motive to invest personal resources as a means of gaining future resources (Hobfoll, 2001). It should be noted that the two principles act interdependently and are not mutually exclusive. Moreover, employees who retain an excess of a single resource often package other resources around that excess resource to invest into the environment as a means to gain more resources (Hobfoll, 2011). However, the more employees retain excess resources, the more easily they gain future resources (gain spirals). Conversely, when employees find themselves lacking resources, they more swiftly lose remaining resources (loss spirals). Hence employees lacking resources are vulnerable to resource loss and inherently less likely to meet the demands of stressors (Hobfoll, 2001). Lastly, when employees face resource scarcity, they become defensive about how they will invest their remaining resources, to attain a return on the investment they make. Research suggests that employees experiencing resource scarcity often make poor resource investment decisions and are prone to experiencing poor well-being outcomes (high levels of stress) (Hobfoll, 2001).

In conclusion, the COR theory explains a continuous process whereby employees have two interdependent motives to use resources to meet the demands of the environment (Hobfoll, 1989). When employees have adequate or excess resources, they classically experience positive well-being outcomes (engagement, satisfaction and low levels of stress). Conversely, when employees have scarce resources, they typically experience negative well-being outcomes (high levels of stress) (Hobfoll, 2001; 2011).

#### **4.3.2 Application of the conservation of resources theory**

Applying Hobfoll's (1989) COR theory to the constructs of psychological attachment (organisational commitment and job embeddedness), work stress and attitudes towards change, the theoretically hypothesised relationship depicted below is derived in the context of organisational change. Figure 4.6 illustrates the hypothesised relationship. Employees have an apprehensive predisposition towards resource loss, and as such, when an organisation is faced with change an environmental stressor presents itself to the employee (Hobfoll, 1989; Vakola & Nikolaou, 2005). The employee will make an assessment (appraise) the situation of whether or not the changes can be met or dealt with by investing personal resources (psychological attachment) (Hobfoll, 1989; Lazarus & Folkman, 1989; Mitchell et al., 2001a; O'Reilly & Chatman, 1986).

Psychological attachment (organisational commitment and job embeddedness) has been found to act as a mediator or personal resource to the employee when faced with stressful events (Holtom et al., 2006; Vakola & Nikolaou, 2005). However, should the employee cope ineffectively and have lower psychological attachment, he or she becomes vulnerable to future resource threats (organisational change) (Hobfoll, 2001; O'Reilly & Chatman, 1986). Moreover, the employee's ability to properly assess the change becomes compromised so that apparently non-stressful events could in fact feel stressful for the employee (Hobfoll, 2001).

The more uncertain the changes appear to the employee, the more threatened and stressed the employee becomes, and he or she starts to disburse the remaining resources to cope with the perceived stressors. Once this loss cycle begins, the employee will make poor resource investment decisions, thus highlighting the resource loss and he or she will feel higher stress levels (Hobfoll, 2001; Vakola & Nikolaou, 2005). The primacy of loss makes the losses feel more immediately compounded. Furthermore, the employee is more likely to adopt negative attitudes towards the change (Hobfoll, 2001; Vakola & Nikolaou, 2005). Conversely, employees with adequate or excess resources and higher psychological attachment will yield positive outcomes (lower stress levels) during the change process. The employee will be more likely to adopt positive attitudes towards the change (Hobfoll, 2001; O'Reilly & Chatman, 1986; Vakola & Nikolaou, 2005). Figure 4.6 below illustrates the integrated overview of the hypothesised relationship between the sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.



Moreover, when the change is undertaken, employees with adequate or excess resources are more likely not to perceive the change as harmful (Hobfoll, 1989). However, the primacy of loss principle prescribes that the employee will still make the initial threat and non-threat assessment (primary appraisal) (Hobfoll, 1989). Employees with adequate or excess resources may still perceive the change as being a threat. However, owing to their adequate or excess resources, these employees will respond differently compared with employees who lack resources (Hobfoll, 2001; Lazarus & Folkman, 1989). In this study it was hypothesised that psychological attachment (organisational commitment and job embeddedness) acts as a mediator to sources of work stress and attitudes towards change. Job embeddedness will specifically yield positive outcomes on voluntary turnover, retention and on-the-job performance (Lee et al., 2004; Mitchell et al., 2001a). Lastly, findings by Sekiguchi, Burton, and Sablynski (2008) show that focusing on employee's job embeddedness can serve as an effective management intervention strategy (during organisational change).

The theoretical integration addressed research aim 2, namely to conceptualise the theoretical relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) as well as attitudes towards change and explored how the elements of the psychological profile constructed from the theoretical relationship dynamics inform organisational change interventions. In addition, based on the theoretical relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change, in this chapter, the theoretical integration further addresses research aims, 1.2, 2 and 3 namely to conceptualise the psychological attachment construct (organisational commitment and job embeddedness). The integration also explored how employees' biographical characteristics (age, gender, race and employment level) influence psychological attachment and how these can be used to outline a psychological profile for organisational change intervention practices.

Chapters 2, 3 and 4 provided a comprehensive literature review of the independent variable (sources of work stress), dependent variable (attitudes towards change) and the mediating variable (psychological attachment-organisational commitment and job embeddedness) that are of relevance to this research study in an attempt to answer the research questions pertinent to the literature review (in the meta-theoretical context, organisational change and employee behaviour in the 21st century). The various factors highlighted in Figure 4.6 will now briefly be discussed.

### **4.3.3 Work, organisational change and employee behaviour in the 21<sup>st</sup> century**

The literature indicated that the pace of change has become more rapid as the FMCG industry is attempting to remain competitive in the modern 21st-century workplace (Caldwell, 2011; Mason, 2008; Slabbert & De Villiers, 1998; Soltani et al., 2007; Supply chain foresight, 2008). Organisational change has intensified over the last few years as a result of key driving forces such as globalisation, the application of advanced managerial strategies (acquisitions, mergers, downsizing and restructuring), new technology and a revolution from industrial to information societies (Admundson, 2006; Blickle & Witzki, 2008; Burke & Ng, 2006; Richardson, 2000; Sullivan, 1999). Change has become more unpredictable, thus offering more threats than opportunities for the employee.

### **4.3.4 Change management practices**

It has become more apparent that change management practices are often fuzzy, hierarchical and autocratic, resulting in poor implementation. The literature has shown that almost 70% percent of change initiatives fail as a result of the lack of consideration for the human element (Balogun & Hailey, 2004; Beer & Nohria, 2000; Comfort & Franklin, 2011; Erwin & Garman, 2010). Organisations do not consider change at employee level, taking into consideration the effects change has on employee stress and organisational commitment, which impacts on employee attitudes towards the change (Vakola & Nikoloau, 2005). Employee participation, involvement in decision making and sufficient or accurate communication do not exist, and this thus drive more fear, anxiety and uncertainty attributed to the change (Dahl, 2010; Vakola & Nikoloau, 2005).

### **4.3.5 Sources of work stress**

The construct of work stress and relevant theoretical models were explained in detail in chapter 3. Variables influencing work stress such as age, gender, race and employment level were identified and discussed. Coetzee and De Villiers (2010) recognised that there are noticeable differences between the sources of work stress and race in the South African work context.

For example, compensation, benefits, lack of leader-manager support, guidance and career advancement prospects were more significant sources of work stress among African black

employees, which could be attributed to the political history of South Africa (Coetzee & De Villiers, 2010). Moreover, sources of work stress were found to be a significant construct to be considered in the context of organisational change, because higher stress levels among employees were more likely to yield negative outcomes for the organisation, such as increased voluntary turnover, lower productivity and higher levels of absenteeism (Dahl, 2010; Vakola & Nikoloau, 2005). Employees when under high levels of stress are also more likely to adopt negative attitudes towards the change (Coetzee & De Villiers, 2010; Dahl, 2010; Vakola & Nikoloau, 2005).

#### **4.3.6 Organisational commitment**

The construct of organisational commitment was defined and explained in Figure 4.2 and all the sub-components (affective commitment, continuance commitment and normative commitment) were explained in chapter 4 in great detail. The factors influencing organisational commitment such as age, gender, race and employment level were also identified and explained. Organisational commitment and its implications for change management were noted as significant in the literature, and as such, the more committed an employee is to the organisation, the more likely he or she is to accept the change (Iverson, 1996). Leadership and human resource management practices were found to be fundamental in driving employee commitment during change (Conway & Monks, 2008; Parish et al., 2008).

#### **4.3.7 Job embeddedness**

The construct of job embeddedness was defined and explained in Figure 4.5. The sub-components of job embeddedness (fits, links and sacrifice) are explained in depth in this chapter. Variables influencing job embeddedness such as age, gender, race and employment levels are also discussed. Job embeddedness has been cited as a key variable to be considered in the realm of organisational change. Change practitioners need to consider an employee's job embeddedness because it would yield many positive benefits for the organisation. A change practitioner can highlight employees' links, fit and sacrifice upon engaging with them in an effort to create buy in to the change initiative (Holtom et al., 2006; Mitchell et al., 2001a).

#### **4.3.8 Attitudes towards change**

Attitude towards change was defined and discussed in chapter 2. Variables influencing attitude towards change, such as the psychological (cognitive, affective and interpersonal) and biographical (age, gender, race) were explained in depth in Figure 2.3 and chapter 2. The psychological variables were cited as fundamentals to be considered in the context of organisational change as the way the employee thinks (cognitive) will inform how the employee feels (affective) and behaves (behavioural) towards the change (Chiang, 2010; Lau & Woodman, 1995). Hence change practitioners need to be mindful of employee attitudes towards change as well as the psychological and biographical variables that influence this construct.

Lastly, the theoretical relationships between the above-mentioned constructs were illustrated and explained in Figure 4.6. It is important to explore the relationship between the sub-components of the constructs as this may yield many valuable insights for change practitioners, thus improving change management practices in organisations. The theoretical relationships of the constructs outlined in Figure 4.6 can be utilised by human resource practitioners and change practitioners to assist the organisation to enhance its change management practices, as a desired outcome. This research attempted to provide human resource practitioners and change practitioners with an empirically tested psychological profile for change interventions, as summarised in Table 4.6 and illustrated in Figure 4.7.

#### **4.4 CONSTRUCTING A THEORETICAL PSYCHOLOGICAL PROFILE FOR CHANGE INTERVENTIONS AND MANAGEMENT**

The central hypothesis of this study was that the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change constitute a psychological profile that can be used to improve change management practices within the FMCG work environment. Table 4.6 provides a summary of the variables as well as implications for change management practices and change practitioners respectively.

Table 4.6

*Psychological Profile Constituting Sources of Work Stress, Psychological Attachment (Organisational Commitment and Job Embeddedness) and Attitudes Towards Change*

Psychological dimension	Sources of work stress (IV)	Psychological attachment (mediator)		Attitudes towards change (DV)
		Organisational commitment	Job embeddedness	
<b>Cognitive</b>	Job role and ambiguity Job tools and equipment Career advancement prospects	Normative	Sacrifice	Cognitive
<b>Affective</b>	Job security	Affective		Affective
<b>Conative</b>	Job autonomy	Continuance		
<b>Interpersonal</b>	Relationships		Fit/links	Behavioural
<b>Implications for change management</b>	Sources of work stress will possibly have a positive effect on change management practices	Organisational commitment will possibly have a positive effect on change management practices	Job embeddedness will possibly have a positive effect on change management practices	Attitudes towards change will possibly have a positive effect on change management practices



Psychological dimension	Sources of work stress (IV)	Psychological attachment (mediator)		Attitudes towards change (DV)
		Organisational commitment	Job embeddedness	
<b>Implications for change practitioners</b>	Assist employees with clarity on job loss or future options	Assist employees to develop positive feelings towards the organisation	Assist employees with a connection between the organisation and community	
	Promote positive relationships	Employees will not have reasons to leave the organisation	Assist employees to cope with sacrifice between the organisation and community	
	Assist with developing their career advancement			
	Enhance employees' ability to cope with change			
	Assist employees with performance and thus productivity			
	Assist with providing training to close out development gaps		Assist employees to develop links between the organisation and community	
	Assist, communicate and promote employee participation to build autonomy		Highlight fit of employee and organisational values	
	Assist employees to spend time with colleagues to gain advice and support			

Table 4.6 above outlined four psychological dimensions (cognitive, affective, conative and interpersonal), which were applied to the constructs of sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. This will constitute the psychological profile for change interventions. Moreover, Table 4.6 indicated the implications for change management and for change practitioners. These implications included recommendations that change practitioners can use when managing change in FMCG organisations.

Figure 4.7 below illustrates the theoretically hypothesised psychological profile comprising sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.

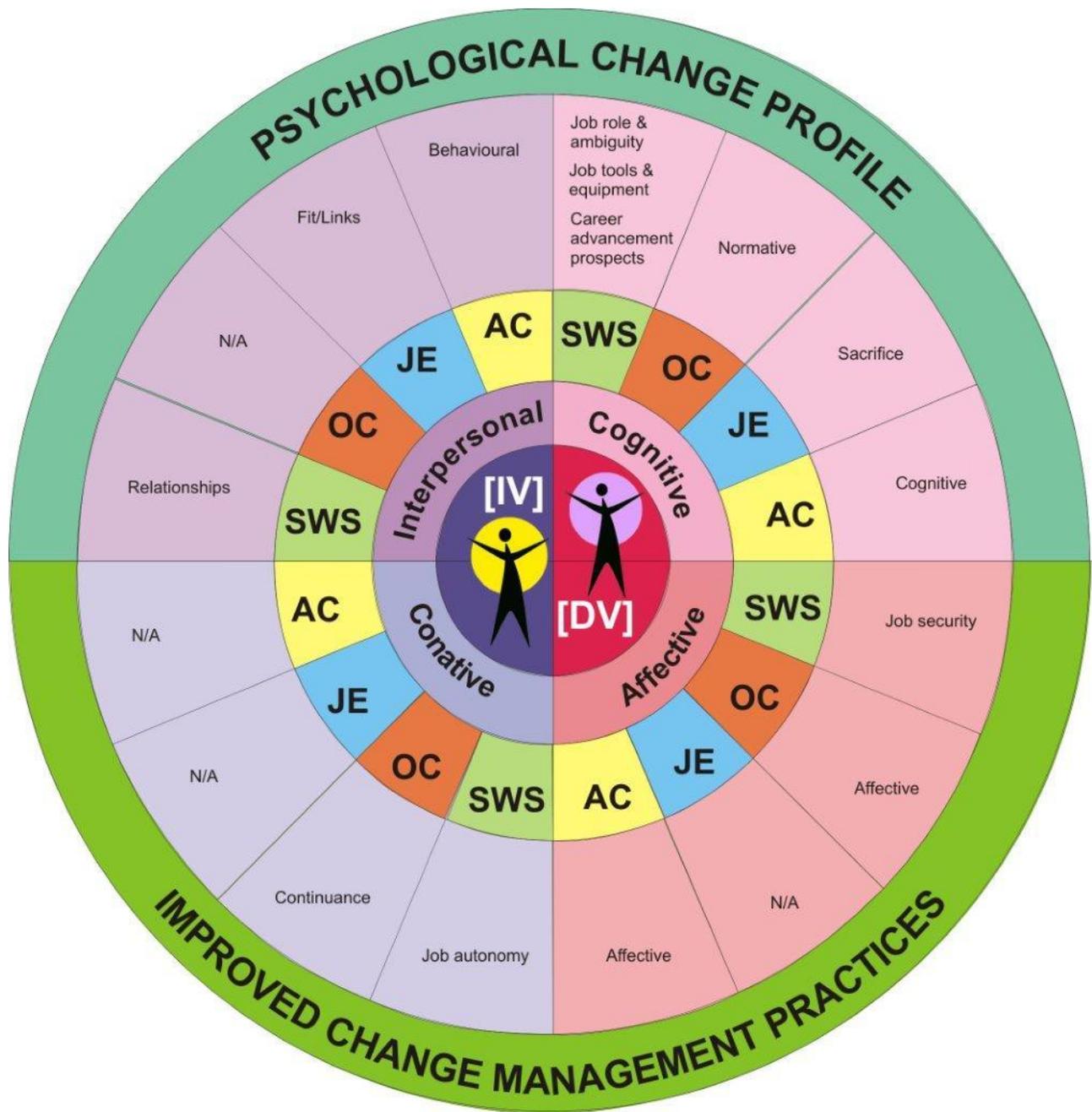


Figure 4.7. Theoretical psychological profile for change interventions Note: SWS: sources of work stress; OC: organisational commitment; JE: job embeddedness; AC: attitudes towards change)

As shown above in Figure 4.7, the theoretical psychological profile is described in terms of the psychological dimensions (cognitive, affective, conative and interpersonal).

At a *cognitive (mental) level*, successful change management practices may be influenced by job role and ambiguity, job tools and equipment, career advancement prospects (sources of work stress), normative (organisational commitment), sacrifice (job embeddedness) and cognitive (attitudes towards change) (Coetzee & De Villiers, 2010; Meyer & Allen, 1997; Mitchell et al., 2001b; Ng & Feldman, 2010; Lau & Woodman, 1995; Vakola & Nikolaou, 2005). Change management practitioners should focus on creating a work environment that provides clear job roles and responsibilities, provides the necessary job tools, training, coaching as well as career advancement clarity. Furthermore, it is important for change practitioners to assist employees to recognise their normative commitment to the organisation by highlighting reasons for membership. The practitioner needs to discuss sacrifices the employee would make either from an organisation or community perspective. Moreover, sufficient and accurate information must be communicated to the employee highlighting the reasons and benefits the change will bring, which may influence the way the employee is likely to think about the change (cognitive) and thus assist the employee to develop positive attitudes towards the change (Lau & Woodman, 1995; Vakola & Nikolaou, 2005).

At an *affective (emotional) level*, change management practices are likely to be impacted by job security (sources of work stress), affective (organisational commitment) and affective (attitudes towards change) (Coetzee & De Villiers, 2010; Lau & Woodman, 1995; Meyer & Allen, 1997; Vakola & Nikolaou, 2005). Change practitioners should help employees to clarify the magnitude of job loss (if any). Where job loss is concerned, efforts should be made to help the employee identify other suitable employment opportunities. Additional coaching could be given to the employee to develop interviewee skills and curriculum vitae development to help the employee secure new employment. Moreover, in the case of affective commitment, an employee remains with the organisation because he or she wishes to (the employee's needs and actual experience in the organisation align) (Meyer & Allen, 1997). Change practitioners need to highlight the alignment between the employee's current needs and how the change will align with those needs. Affective attitudes towards change refer to the way an employee feels about the change (Lau & Woodman, 1995). Here, change practitioners need to help employees develop positive feelings about the change, by highlighting the benefits the change will bring. Employee involvement and participation may also influence the employee to develop positive affective attitudes towards the change (Vakola & Nikolaou, 2005).

At a *conative (motivational) level*, job autonomy (sources of work stress) and continuance (organisational commitment) are likely to influence change management practices. Change management practitioners need to (1) recognise the extent to which job autonomy is important to the employee; and (2) allow for new jobs or work practices to accommodate job autonomy for the employee (Coetzee & De Villiers, 2010). Leadership styles may influence job autonomy – for example, if a manager micro-manages an employee, this is likely to constrain job autonomy. Also, human resource practices such as training will develop an employee's skill set, thus increasing job autonomy for him or her (Conway & Monks, 2008). Continuance (organisational commitment) refers to an employee's cognisance of the costs associated with leaving the organisation (Meyer & Allen, 1997). Change practitioners need to take cognisance of this, and ensure that the economic value, costs and risks associated with the employee leaving the organisation during or after a change process are communicated. If the employee weighs up higher costs and benefits with remaining with the organisation, despite the changes, the employee is more likely to remain with the organisation (Meyer & Allen, 1997).

At an *interpersonal (social) level*, change management practices are likely to be influenced by relationships (sources of work stress), fit and links (job embeddedness), behavioural (attitudes towards change). Relationships need to remain a focus during the change process, because poor, unsupportive relationships and unfair treatment with colleagues and/or managers can hinder successful outcomes of the change process (Vakola & Nikolaou, 2005). Change management practitioners need to ensure that managers concentrate on building relationships with their employees on an ongoing basis (Vakola & Nikolaou, 2005). Furthermore, the team needs to perceive that the manager and change management practitioners are treating all employees equitably or fairly (Conway & Monks, 2008; Vakola & Nikolaou, 2005). Change practitioners can also ensure that during the change process, employees are allowed to spend time with colleagues to glean advice and gain support (Conway & Monks, 2008). Moreover, fit and links may influence change management practices in the organisation. Fit refers to the employee's perceived compatibility with the organisation and community (Mitchell et al., 2001a). Change practitioners need to be cognisant of the fit the employee perceives with the organisation, and even try to probe around this during the change process (Mitchell et al., 2001a).

The change practitioner can focus on the congruency between and employee's goals and how the change will assist the employee to achieve his or her goals. The employee will be more likely to buy into the change and develop positive feelings about the change (Conway & Monks, 2008; Vakola & Nikolaou, 2005). Moreover, links refer to formal or informal connections between the employee and the organisation and/ or community (Mitchell et al., 2001a). Change practitioners have to remain cognisant of the links employees have with the organisation and/or community and highlight these during discussions with them. The more aware the employee is of the links he or she has, the more unlikely he or she will be to leave the organisation (Mitchell et al., 2001a). Behavioural attitudes towards change may also influence change management practices. Change practitioners can influence behaviour of employees during the change by ensuring the way they think (cognitive) and feel (affective) about the change remains positive (Lau & Woodman, 1995; Vakola & Nikolaou, 2005). Employee involvement and participation in the change may influence positive thoughts and feelings about the change, thus promoting positive behaviours towards the change (Conway & Monks, 2008; Vakola & Nikolaou, 2005). Examples of positive behaviours would entail more openness towards and participation in training programmes, active on-the-job learning and application as well as sustainable or improved performance. If the employee demonstrates positive behavioural attitudes towards the change, he or she is more likely to embrace it (Vakola & Nikolaou, 2005).

Reflecting on the central hypotheses, that is, the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change, may constitute a psychological profile for change interventions that could be used to inform organisational change practices in the FMCG work environment. It is evident from the literature that a relationship may exist between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change that may constitute a psychological profile for change interventions. Moreover, the literature indicates that the psychological change profile will yield many benefits that change practitioners can use when managing change. The various psychological dimensions (cognitive, affective, conative and interpersonal) will provide insights into managing change that will be highly focused on managing change at an individual level as opposed to only an organisational level.

In terms of the central hypotheses of this study, psychological attachment could have a mediating effect on sources of work stress and change attitudes. It is evident that psychological attachment may in fact have a mediating effect in the relationship between sources of work stress and change attitudes. Further, employees' biographical characteristics (age, gender, race and employment level) might moderate the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness), and attitudes towards change. The empirical study explored the central hypotheses further, which should provide many benefits to change practitioners in the South African FMCG context.

#### **4.5 IMPLICATIONS FOR CHANGE MANAGEMENT PRACTICES**

The psychological profile developed for change interventions in this study should ensure many positive benefits for managers, human resource practitioners and change practitioners who are responsible for change management in FMCG industries. The assessment of the overall relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change encompasses many practical insights into managing change in the 21st-century modern workplace.

##### **4.5.1 Sources of work stress**

Sources of work stress and their implications for change management and change practitioners were discussed in depth in section 4.4. It was indicated that sources of work stress in terms of the cognitive level (job role and ambiguity, job tools and equipment and career advancement prospects), the affective level (job security), the conative level (job autonomy) and the interpersonal level (relationships) play a significant role in improving change management practices in organisations.

In terms of the *cognitive level*, that is, the job role and ambiguity, job tools and equipment and career advancement prospects, these are critical areas of concern for employees associated with change. Change practitioners will need to clarify these areas (job role and ambiguity, job tools and equipment and career advancement prospects) when introducing change to the organisation, and this could significantly alter the employees' level of work stress. In terms of the *affective level* (job security), change practitioners will need to communicate to employees any possibilities of job loss or future options.

In terms of the *conative level* (job autonomy), change practitioners will need to promote participation and create opportunities for autonomy on the job. In terms of the *interpersonal level* (relationships), positive relationships need to be promoted by change practitioners. Moreover, biographical variables need to be considered in relation to sources of work stress when managing change. For example, change practitioners will need to maintain focus on younger employees when managing change as research shows that younger employees may not be adequately equipped for dealing with work stress as compared to older employees (Balakrishnamurthy & Sankar, 2009; Latha & Prabhu, 2012). In terms of gender, change practitioners may need to be aware of female employees having to balance roles at home and work; which means they will have to invest more time on females in an attempt to reduce work stress (Blix et al., 1994). In terms of race, leader/ manager support needs to remain a focal point for African black employees when managing change (Coetzee & De Villiers, 2010). In terms of the employment level, junior employees affected by change may need more support, because research has indicated they may in fact experience higher stress levels (Dua, 1996; O'Neil & Davis, 2011).

#### **4.5.2 Organisational commitment**

The construct of organisational commitment and its implications for change management and change practitioners were summarised in Table 4.2 and discussed in depth in section 4.4. Organisational commitment at a cognitive (normative), affective and conative level (continuance) was indicated as a key variable to be considered in change management practices. Awareness of the elements cited should provide many benefits to the organisation. In terms of organisational commitment at a cognitive (normative) level, affective and conative level (continuance), change practitioners will need to help employees to develop positive feelings towards the change. Employees will not have reasons to want to leave the organisation. Change practitioners need to spend time understanding the employees' organisational commitment and develop interventions necessary to assist employees to strengthen their organisational commitment during change. Moreover, biographical variables such as age in relation to organisational commitment need to be considered when managing change. For example, change practitioners may need to spend more time with younger employees as research has shown that older employees show higher organisational commitment compared to younger employees (Allen & Meyer, 1993; Baron & Greenberg, 1990; Buchanan, 1974; Ferreira & Coetzee, 2010).

Moreover, research has shown that female employees may experience lower organisational commitment, change practitioners therefore may need to maintain focus on female employees (Coetzee et al., 2007; Lai et al. 1998; Martins & Coetzee, 2007; Ohlott et al., 1994). Lastly, employees in lower employment levels need to remain a priority for change practitioners when managing change as these employees tend to experience lower levels of organisational commitment (Coetzee, 2005; Van Dyk et al., 2013).

### **4.5.3 Job embeddedness**

The construct of job embeddedness and its implications for change management and change practitioners were summarised in Table 4.2 and discussed in depth in section 4.4. Job embeddedness at a cognitive level (sacrifice) and interpersonal level (fit and links) were cited as key elements to be considered when managing change in an organisation.

In terms of job embeddedness, at a **cognitive level** (sacrifice), change practitioners will need to assist employees with a connection between the organisation and community. Change practitioners can also help employees cope with the sacrifice between the organisation and community. In terms of job embeddedness at an **interpersonal level** (fit and links), change practitioners can assist employees to develop links between the organisation and community. Moreover, the fit of the employee and the organisational values can also be highlighted. Biographical variables in relation to job embeddedness also need to be taken into consideration by change practitioners when managing change. For example, change practitioners may need to focus more on younger employees going through change as they may have lower job embeddedness compared to older employees (Coetzee & Schreuder, 2008; Tanova & Holtom, 2006). Female employees may also require more focus during change as they have been shown to experience lower job embeddedness (Van Dyk, 2011). Employees at lower levels in the organisation will also require more focus by change practitioners as they may have lower job embeddedness (Holtom et al., 2006; Van Dyk, 2011).

#### 4.5.4 Attitudes towards change

The construct of attitudes towards change and its implications for change management and change practitioners were summarised in Table 4.2 and discussed in depth in section 4.4. Attitudes towards change at a cognitive level (cognitive), affective level (affective) and behavioural level (behavioural) have been shown to be significant elements to be recognised in change management practices in the organisation.

In attitudes towards change at a *cognitive level* (cognitive), *affective level* (affective) and *behavioural level* (behavioural) change practitioners need to assist employees develop positive thinking, feelings and behaviour towards the change. Moreover, change practitioners can promote openness and participation in change that will assist employees to develop positive attitudes towards the change. Biographical variables in relation to attitudes towards change need to be taken into consideration by change practitioners. For example, change practitioners may need to focus on younger employees as they are more likely to develop negative attitudes towards the change (Yilmaz et al., 2013). In addition, male employees have been shown to develop negative attitudes towards change when compared to females – hence change practitioners may need to expend more time on male employees during change (Vakola & Nikolaou, 2005).

In summary, change management practitioners need to be aware of the role the construct of sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change play (in terms of the four psychological dimensions) and ensure change management practices are aligned accordingly in order to improve these practices in the FMCG industry. Change practitioners also need to be aware of the role of biographical variables (age, gender, race and employment level) when managing change.

## 4.6 CRITICAL EVALUATION

It is evident from the literature that psychological attachment (organisational commitment and job embeddedness) is a significant variable to be considered in the context of organisational change. The conceptualisation of organisational commitment has postulated a need to review organisational commitment at all three levels (affective, continuance and normative commitment) in the context of organisational change (Allen & Meyer, 1997). Moreover, organisational commitment has been shown to play an integral role in terms of employee reactions to the change. In other words, the more committed an employee is to the organisation, the more open he or she will be towards the change being implemented (Iverson, 1996; Raukko, 2009). The literature has also indicated that organisational commitment has implications for on-the-job behaviour such as performance and absenteeism (Allen & Meyer, 1991). This is important, because when an employee is faced with change, he or she can accept it and be part of the process or resist the change and demonstrate behaviour that will impact negatively on the organisation. Leadership (shared vision, goals, values, modelling of desired behaviours) and human resource practices (training, empowerment, communication and participation) were shown in the literature to be significant variables to be considered during the change process (Conway & Monks, 2008; Keng et al., 2013; Parish et al., 2008). Currently, there is a gap in the literature in the sense that these variables do not form part of the change management process. The aim of this research was to provide an empirical psychological profile for change interventions recommending these variables as part of the change management process.

Job embeddedness has been shown to be a critical consideration in the context of organisational change because it represents a wide set of influences on an employee's decision to remain on the job (Holtom et al., 2006). During times of organisational change, employees are faced with the decision to either remain on the job or leave the organisation. Job embeddedness thus becomes a critical factor to be considered during change. The three components of job embeddedness (links, fit and sacrifice that include on-the-job or off-the-job factors) can play a significant role in the change management process (Holtom et al., 2006). However, because job embeddedness does not form part of the change management process in organisations, this study attempted to provide an empirical psychological profile that would inform change management practices.

The integration of the role of organisational commitment and job embeddedness in the stress and attitudes towards change relationship revealed that psychological attachment (organisational commitment and job embeddedness) may serve as a resource for the employee during times of organisational change. Organisational change often creates stress for the employee, who is in turn is likely to develop negative attitudes towards change (Vakola & Nikolaou, 2005). However, psychological attachment (organisational commitment and job embeddedness) may mediate the effects of the stress and attitudes towards change relationship. If change practitioners focus their attention on an employee's psychological attachment (organisational commitment and job embeddedness), they can develop change practices that will influence this construct that may in fact yield positive consequences for the organisation. Currently, there seems to be a gap in the literature with regard to job embeddedness and the implications for change management, thus this research will set out to provide an empirical psychological profile with recommendations to change practitioners.

Lastly, the theoretically proposed psychological profile, developed in terms of the four psychological dimensions (cognitive, affective, conative and interpersonal) in relation to the sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change variables, should provide a set of empirical recommendations for change practitioners that will help to improve change management practices in FMCG organisations. Moreover, the biographical variables in relation to sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change should provide empirical recommendations to change practitioners to consider, as there is currently a gap in literature, especially in the South African FMCG context.

#### **4.7 CHAPTER SUMMARY**

Chapter 4 conceptualised the construct of psychological attachment (organisational commitment and job embeddedness). The variables (age, gender, race and employment level) influencing the construct of psychological attachment were discussed. The implications psychological attachment (organisational commitment and job embeddedness) has for change management practices were also highlighted. The integration of the role that organisational commitment and job embeddedness play in the stress and attitudes towards change relationship was also explained. The chapter concluded with a proposed theoretical psychological profile for change interventions. The implications for change management interventions were also explained.

Herewith the following research aims that have been achieved:

**Research aim 1.2:** To conceptualise the psychological attachment construct (organisational commitment and job embeddedness) and explore how employees' biographical characteristics (age, gender, race and employment level) influence this construct

**Research aim 2:** To conceptualise the theoretical relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change, and to explore how the elements of the psychological profile constructed from the theoretical relationship dynamics inform organisational change interventions

**Research aim 3:** To outline the psychological profile for organisational change interventions practices and formulate recommendations for future research

This concludes the literature review. Chapter 5 introduces the empirical study.

## CHAPTER 5: THE EMPIRICAL RESEARCH

This chapter deals with the statistical methods that were employed to assess whether a psychological profile for change interventions can be constructed for change management purposes by investigating the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. The research hypotheses that were relevant to the empirical aims of the research and the statistical procedures that were performed to test the research hypotheses are outlined in this chapter. A non-experimental cross-sectional quantitative survey design was used. The advantages of a non-experimental quantitative survey design are no bias from interviews and accurate results (Creswell, 2009; De Vos, Strydom, Fouché, & Delport, 2011). One of the disadvantages noted in survey design is that the results can only be generalised to the sample (Creswell, 2009; De Vos, et al., 2011). The research hypotheses will be tested by means of descriptive, correlation and inferential or multivariate statistics.

The empirical phase consisted of nine steps as indicated below:

- Step 1: Determination of the measuring instruments
- Step 2: Description of the population and sample
- Step 3: Administering of the measuring instruments
- Step 4: Capturing of the data
- Step 5: Formulation of the research hypotheses
- Step 6: Analysing the data
- Step 7: Reporting and interpretation of the statistical findings
- Step 8: Integration with the research
- Step 9: Writing up the conclusions, limitations and recommendations

Steps 1 to 6 are addressed in this chapter, steps 7 and 8 in chapter 6, and step 9 in chapter 7.

## **5.1 DETERMINATION AND DESCRIPTION OF THE SAMPLE**

According to De Vos et al. (2011), a population can be defined as individuals in the universe who retain specific characteristics or a set of entities that denotes all the measurements of interest to the researcher. A sample is a subset of the population and should be representative of the population of the study (De Vos et al., 2011). For purposes of the empirical study, a non-probability purposive sampling technique was selected. Sampling entails the selection of a portion of the population being researched. A non-probability sample does not attempt to select a random sample from the population being researched, but instead, subjective methods are employed to decide which elements are included in the sample. Furthermore, the aim of using purposive sampling is to produce a sample that can be considered representative of the population being researched (Babbie, 2012). Purposive sampling is considered appropriate for the selection of small samples from a restricted population. Non-probability purposive sampling is also less expensive and can be implemented at a faster rate (Babbie, 2012).

In the current empirical study, the population consisted of 3 000 employees who were at the time employed in the selected FMCG company. A purposive sample of 400 employees (N = 400) was taken. The 400 participants were selected deliberately on the basis that they were undergoing a process of change. A total of 350 questionnaires were identified as usable (N = 350). A response rate of 88% was thus achieved. The profile of the sample is described according to the following biographical variables: age, gender, race and employment level. The decision to include these biographical variables was based on the exploration of biographical variables that influence sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change, as discussed in the literature review.

### **5.1.1 Composition of age groups in the sample**

Table 5.1 and Figure 5.1 illustrate the age distribution of the participants in the sample. There were 67% of participants in the 26 to 40 age category, and 17% of the participants were in the 41 to 55 age category. The 25 years and younger category comprised 14%. The 56 years and older category comprised 2%.

Table 5.1

*Age Distribution of the Sample (n = 350)*

<b>Age</b>	<b>N</b>	<b>Percentage</b>
25 years and younger	48	14%
26 – 40 years	236	<b>67%</b>
41 – 55 years	58	17%
56 years and older	8	2%
<i>Total (N)</i>	<i>350</i>	<i>100%</i>

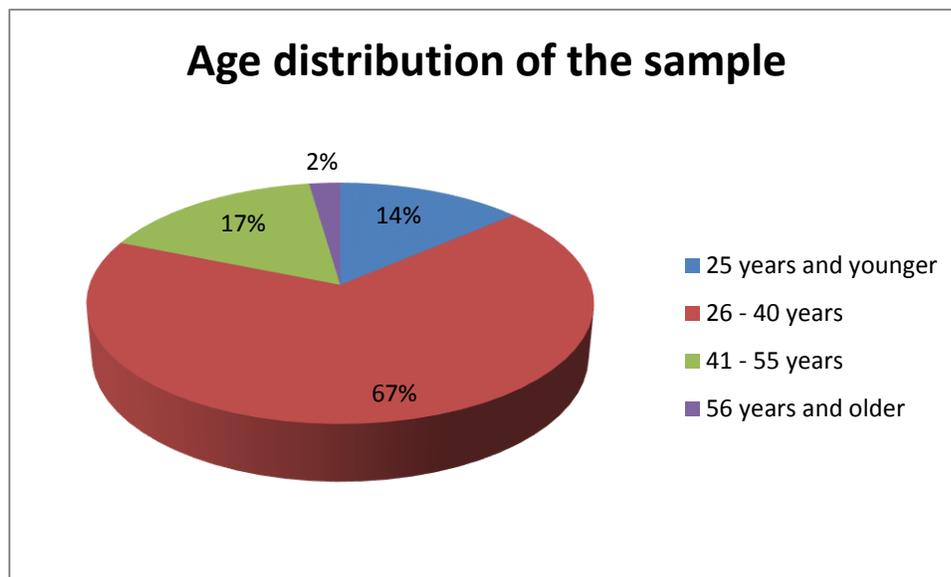


Figure 5.1. Sample distribution by age (n = 350)

### 5.1.2 Composition of gender groups in the sample

Table 5.2 and Figure 5.2 indicate the gender distribution of the participants in the sample. In the sample there were 69% male and 31% female participants (n = 350).

Table 5.2

*Gender Distribution of the Sample (n = 350)*

<b>Gender</b>	<b>N</b>	<b>Percentage</b>
Male	242	<b>69%</b>
Female	108	31%
<i>Total (N)</i>	<i>350</i>	<i>100%</i>

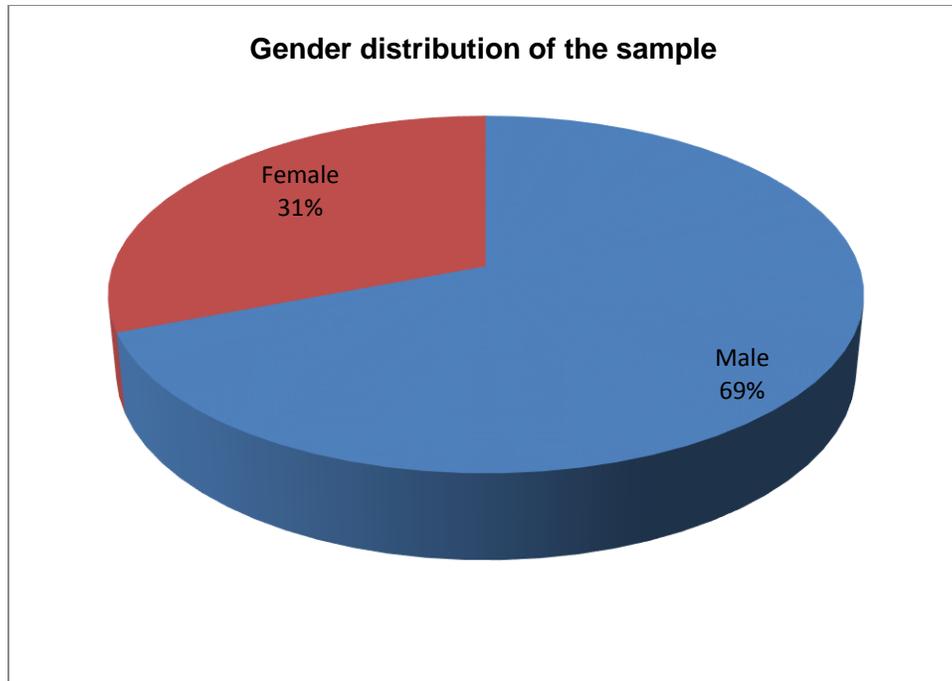


Figure 5.2. Sample distribution by gender (n = 350)

### 5.1.3 Composition of race groups in the sample

Table 5.3 and Figure 5.3 indicate the race distribution of the participants in the sample. There were 67% African black participants in the sample. White participants comprised 23% of the sample, and there were 6% Indian, 4% coloured and 0% other participants (n = 350).

Table 5.3

*Race Distribution of the Sample (n = 350)*

<b>Race</b>	<b>N</b>	<b>Percentage</b>
African black	234	<b>67%</b>
Coloured	14	4%
Indian	21	6%
White	80	23%
Other	1	0%
<i>Total (N)</i>	<i>350</i>	<i>100%</i>

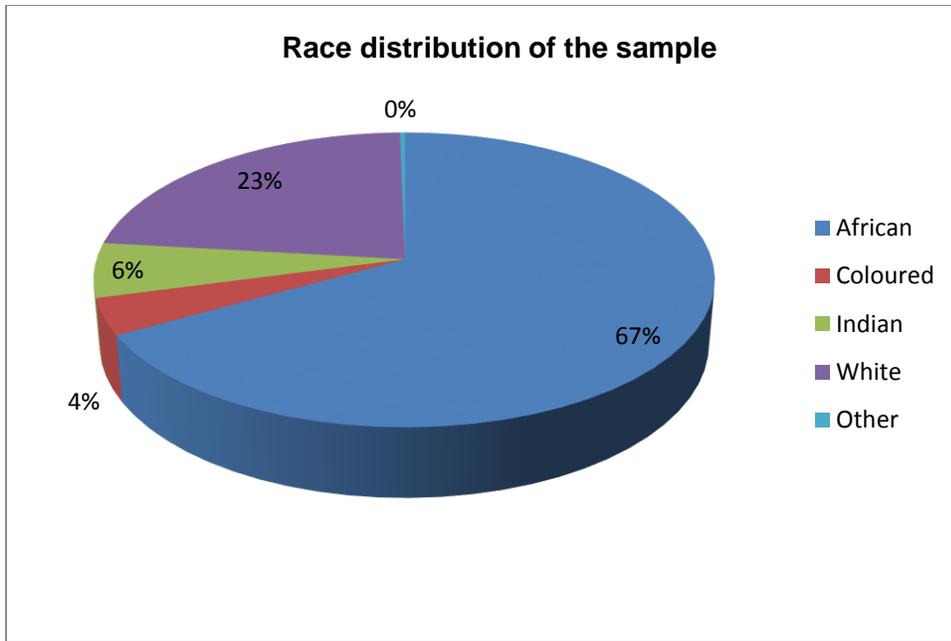


Figure 5.3: Sample distribution by race (n = 350)

#### 5.1.4 Composition of employment level groups in the sample

Table 5.4 and Figure 5.4 indicate the employment level distribution of the participants in the sample. There were 55% upper administrative level participants. Middle management made up 16% of the participants, 13% of the participants were administrative level, 9% of the participants were junior management and 7% were executive level and above participants (n = 350).

Table 5.4

*Employment Level Distribution of the Sample (n = 350)*

Employment level	N	Percentage
Executive level and above	25	7%
Middle management level	56	16%
Junior management level	32	9%
Upper administrative level	193	<b>55%</b>
Administrative level	44	13%
<i>Total (N)</i>	<i>350</i>	<i>100%</i>

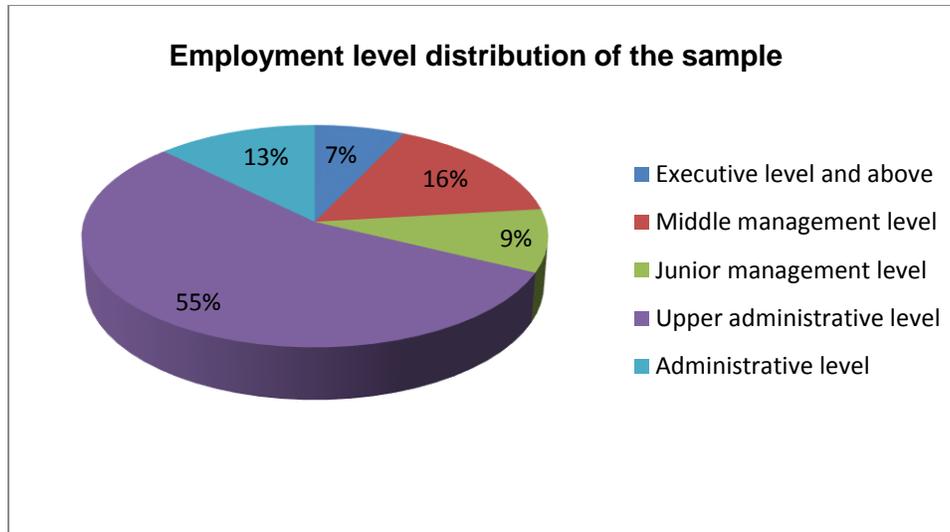


Figure 5.4: Sample distribution by employment level (n = 350)

### 5.1.5 Summary

In summary, the biographical sample profile showed that the predominant sample characteristics that needed to be considered in terms of the empirical study were age, gender, race and employment level. Table 5.5 shows that participants in the sample were primarily African black, males, aged between 26 and 40 (career establishment stage) and at an upper administrative level.

## 5.2 CHOOSING AND MOTIVATING THE PSYCHOMETRIC BATTERY

The deliberation given to the selection of the psychometric battery was informed by the literature review. The literature review can be viewed as exploratory research in which the relevant theories and models of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change were presented in an integrated manner. The applicability of the selected psychometric battery was considered in relation to the relevant theories and models of the research. Emphasis was placed on the reliability and validity of the various psychometric instruments.

The following measuring instruments were applicable in the empirical study:

- The biographical questionnaire was used to elicit biographical details
- The sources of job stress scale developed by Coetzee and De Villiers (2010) to measure the sources of work stress construct
- The organisational commitment questionnaire developed by Meyer and Allen (1997) to measure the construct of organisational commitment
- The job embeddedness questionnaire developed by Mitchell et al. (2001) to measure the construct of job embeddedness
- The attitudes towards change questionnaire developed by Dunham et al. (1989) to measure the construct of attitudes towards change

The above-mentioned measuring instruments were chosen on the basis of their reliability, validity, applicability and cost effectiveness. The measuring instruments will be further discussed in the sections to follow.

### **5.2.1 The sources of job stress scale (SJS)**

The section below explores the rationale, purpose, administration, interpretation, validity and reliability of the SJS and the reason the measuring instrument was chosen.

#### *5.2.1.1 Rationale and purpose*

The sources of job stress scale (Coetzee & De Villiers, 2010) is regarded as a self-report measure. The measuring instrument is used to measure sources of work stress.

#### *5.2.1.2 Description of the SJS*

The sources of job stress scale comprises of six items, measuring a source of job stress, that is, job role and ambiguity, job tools and equipment, career advancement prospects, job security, job autonomy and relationships. Participants rate each statement on a five-point Likert scale based on their self-perceived experiences of six sources of work stress.

Responses are measured on the following scale:

1	2	3	4	5
None at all	Very little	Some	Quite a lot	Very much

#### *5.2.1.3 Administration of the SJS*

This is a self-administered questionnaire. Participants receive clear, unambiguous instructions on how to complete the scale. The questionnaire takes approximately ten minutes to complete.

#### *5.2.1.4 Interpretation*

Each subscale (job role and ambiguity, job tools and equipment, career advancement prospects, job security, job autonomy and relationships) is measured separately and reflects the employees' sources of job or work stress on each of the dimensions. The higher the score the more accurate the statement is for the participant, therefore higher levels of work stress would be experienced.

#### *5.2.1.5 Reliability and validity of the SJS*

The reliability of the sources of job stress scale was measured by using Cronbach alpha coefficients. These ranged from .75 to .79 (Coetzee & De Villiers, 2010). Thus the sources of job stress scale were regarded as acceptable for the purpose of this study. The validity of the sources of job stress scale was ensured by means of the literature review which indicated these as core sources of work stress that emerged from various studies (Cartwright & Cooper, 2002; De Bruyn & Taylor, 2006).

#### *5.2.1.6 Motivation for using the SJS*

The SJS was developed to measure the sources of work stress. Moreover, it was used and tested in the South African context with well-established reliability and validity (Coetzee & De Villiers, 2010).

## 5.2.2 The organisational commitment questionnaire (OCQ)

The section below explores the rationale, purpose, administration, interpretation, validity and reliability of the OCQ and the reason the measuring instrument was chosen for this study.

### 5.2.2.1 Rationale and purpose

The OCQ is a self-report measure consisting of three factors (affective commitment, continuance commitment and normative commitment) (Meyer & Allen, 1997). The affective commitment items measure an employee's emotional attachment to the organisation. The continuance commitment items measure employees' awareness of the costs associated with leaving the organisation. The normative commitment items measure employees' feelings of obligation to remain with the organisation (Meyer & Allen, 1997). Moreover, the measuring instrument is used to measure organisational commitment (affective, continuance and normative) as a psychological state that connects an employee to an organisation (Allen & Meyer, 1990).

### 5.2.2.2 Description of the OCQ

There are 23 items measuring affective (8 items), normative (6 items) and continuance commitment (9 items). An example of the affective commitment item includes "I would be very happy to spend the rest of my career in this organisation". "I am not afraid of what might happen if I quit my job without having another one lined up" is an example of the continuance commitment item. In terms of normative commitment, an example of this item is "I do not feel any obligation to remain with my current employer". The items on the questionnaire are structured in a statement format with a seven-point Likert scale. The scale on the OCQ is:

1	2	3	4	5	6	7
Strongly disagree	Disagree	Sometimes disagree	Neutral	Sometimes agree	Agree	Strongly agree

### 5.2.2.3 *Administration of the OCQ*

The OCQ is a self-administered questionnaire and takes about ten to fifteen minutes to complete. Clear guidelines and instructions are provided to participants. Participants rate the statements on their perceived organisational commitment.

### 5.2.2.4 *Interpretation*

Each subscale (affective commitment, continuance commitment and normative commitment) is measured separately and reflects the participant's organisational commitment to the organisation. It is therefore possible to assess which of the dimensions are perceived to be true and which are not. High scores are indicative of higher levels of commitment.

### 5.2.2.5 *Reliability and validity of the OCQ*

The reliability of the OCQ is good, representing a Cronbach alpha of between .77 to .88 for affective commitment, .65 to .86 for normative commitment and .69 to .84 for continuance commitment (Fields, 2002, p. 51). Research has shown that the organisational commitment scale demonstrates instrument validity, that is, both convergent and discriminant validity (Nunnally, 1978; Meyer & Allen, 1997). Coetzee et al. (2007) and Ferreira (2009) examined careers in relation to organisational commitment and they found that the organisational commitment scale demonstrates adequate reliability and validity in the South African context.

### 5.2.2.6 *Motivation for using the OCQ*

The OCQ was developed to measure organisational commitment in terms of the three dimensions (affective commitment, continuance commitment and normative commitment). Since the purpose of the research was to investigate organisational commitment in terms of all three dimensions, the OCQ was deemed applicable for this purpose.

### 5.2.3 The job embeddedness questionnaire (JEQ)

The section below explores the rationale, purpose, administration, interpretation, validity and reliability of the JEQ and the reason why the measuring instrument was chosen.

#### 5.2.3.1 Rationale and purpose

The JEQ is a self-report measure consisting of multi-factors (fit, links and sacrifice). The measuring instrument is used to measure job embeddedness (Mitchell et al., 2001).

#### 5.2.3.2 Description of the JEQ

There are 23 items measuring job embeddedness. Seven items measure fit, six items measure links and ten items measure sacrifice. The items on the questionnaire are structured in a format with a six-point Likert scale. The scale for the JEQ is as follows:

1	2	3	4	5	6
Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

Moreover, fit is the perceived compatibility or comfort of an employee with an organisation. It incorporates the ideas of how well the employee perceives his or her personal values, goals, and needs to be in harmony with those of the organisation. Using seven items, organisational fit assesses whether co-workers are similar to employees and whether they can achieve their professional goals working for a particular organisation, for example, “My job utilises my skills and talents well”.

Organisational sacrifice is the perceived cost of material or psychological benefits that may be lost by leaving a job. This dimension of job embeddedness uses ten items to assess attitudes towards compensation for performance level, potential sacrifices if leaving the current job and the freedoms of the job, for example, “I would sacrifice a lot if I left this job”.

Organisational links comprise six items. This component assesses the quantifiable links employees have with the organisation, links to other employees in the organisation and various other links established as a by-product of being employed by their current organisation. Links assess quantifiable numbers associated with effects such as current tenure, the number of co-workers' and so forth (Mitchell et al., 2001). For example, "I have close links with many people in this organisation".

#### *5.2.3.3 Administration of the JEQ*

The JEQ is a self-administered questionnaire and takes about ten to 15 minutes to complete. Clear guidelines and instructions are provided to participants. Participants rate the statements on their perceived job embeddedness.

#### *5.2.3.4 Interpretation*

Each subscale (fit, links and sacrifice) is measured separately and reflects the participant's job embeddedness. High scores are indicative of higher levels of job embeddedness.

#### *5.2.3.5 Reliability and validity of the JEQ*

The scale has good established validity and reliability. Internal consistency reliability (Cronbach alpha) was .89 (Mitchell et al., 2001).

#### *5.2.3.6 Motivation for using the JEQ*

Since the purpose of the research was to measure job embeddedness in terms of all three dimensions (fit, link and sacrifice), the JEQ was deemed suitable for this purpose.

## 5.2.4 The attitudes towards change questionnaire (ACQ)

### 5.2.4.1 Rationale and purpose

The ACQ (Dunham et al., 1989) is regarded as a self-rating measure consisting of multi-factors (affective, cognitive and behavioural attitudes towards change). The measuring instrument is used to determine an employee's attitudes towards change.

### 5.2.4.2 Description of the ACQ

This scale comprises 18 items, which further consist of three subscales, the cognitive (6 items), affective (6 items) and behavioural (6 items) scales. The cognitive dimension of the scale focuses on the degree to which an individual believes that change tends to produce positive effects for the organisation, for co-workers, and for himself or herself, for example, "change usually benefits the organisation". The affective dimension of the scale focuses on the feelings people have about change, for example, "I look forward to change at work". The behavioural tendency dimension of the scale focuses on the degree to which the person is likely to support change and is likely to initiate change, for example, "I usually resist new ideas". Participants rate the statements on a five-point Likert scale. The responses are measured in terms of the following scale:

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

### 5.2.4.3 Administration of the ACQ

The ACQ is a self-administered questionnaire. Participants receive clear instructions on the completion of the questionnaire. The questionnaire usually takes approximately ten minutes to complete. Participants rate the statements based on their self-perceived attitudes towards change.

#### 5.2.4.4 *Interpretation*

Each subscale (affective, cognitive and behavioural) is measured separately and reflects the participants' attitudes towards change. Lower scores on the ACQ reflect more positive attitudes towards change. High scores on the ACQ reflect more negative attitudes towards change.

#### 5.2.4.5 *Reliability and validity of the ACQ*

According to Dunham et al. (1989), the ACQ demonstrates adequate reliability and validity and internal consistency, that is, Cronbach's alpha for overall attitudes towards change is .89, while the coefficients for each of the dimensions on cognitive, affective, and behavioural components are .78, .77 and .79.

#### 5.2.4.6 *Motivation for using the ACQ*

The ACQ was designed to assess an employee's attitudes towards change in the organisation which was relevant to this research. Since the aim of this research was to investigate an employee's attitudes towards change from an affective, cognitive and behavioural perspective, this measuring instrument was deemed relevant for this purpose.

### **5.2.5 Limitations of the psychometric battery**

All the measuring instruments used in the empirical research were self-report questionnaires which may have been a disadvantage. According to Neuman (2000), the individual's responses are only as true as the individual wishes to represent himself or herself. Moreover, the possibility of representing oneself in a favourable light or faking response exists (Neuman, 2000). This could mean that the results could be biased (De Vos et al., 2011; Neuman, 2000).

In conclusion, the instruments selected for this research namely the SJS, OCQ, JEQ and ACQ were selected on the basis of extensive review of other instruments used to measure sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. A determining factor in the selection of these instruments was the ability to use statistical correlation analysis to determine the extent of the relationship between

the various variables in this study. However, the limitations of the self-report questionnaires needed to be carefully considered when interpreting the results of the empirical study.

### **5.3 DATA COLLECTION**

Various quantitative data gathering techniques exist such as scales and indices, checklists and questionnaires (De Vos et al., 2011). For the purposes of this empirical study, the following data collection process was followed:

- A biographical questionnaire was included which enclosed questions on four variables (age, gender, race and employment level).
- The SJS, OCQ, JEQ, ACQ were handed out to all respondents in the selected sample.
- The respondents completed the questionnaires during the time in which the questionnaires were administered. The researcher collected the questionnaires upon completion by the respondents.

According to De Vos et al. (2011), the above-mentioned data collection process is referred to as personal questionnaires. In this type of data collection, the involvement of the researcher should be minimal, but he or she should be available to support participants' when required (De Vos et al., 2011). This type of data collection yields a higher response rate. The human resources business partners were used as resources to support the collection of data from the sample. The rationale, purpose of the study and instructions for completion of the questionnaires were provided to the respondents. Ethical clearance was obtained from the research institution (Unisa), and permission to conduct the research from the management of the FMCG company was also obtained. The cover letter informed respondents that the results of the study would be used for research purposes only.

### **5.4 ETHICAL CONSIDERATIONS**

Ethics can be defined as a collection of ethical or honest principles which guides (1) the quality of the entire research process, and (2) protects the moral obligations towards respondents of the study (De Vos et al., 2011). All processes carried out during the empirical study complied with all the necessary ethical obligations. Ethical clearance to conduct the research was obtained from the department of Psychology at the University of South Africa.

The following ethical obligations were adhered to:

- Permission to conduct the research was obtained.
- Both conventional and recent sources were used to describe concepts, which were acknowledged by means of citing references.
- Subject matter experts in the field were consulted to ensure a rigorous empirical research process.
- Informed consent was obtained from the respondents.
- The respondents were assured of anonymity and confidentiality as well as how the results of the research would be used, that is, for research purposes only.
- The reliability and validity of the measuring instruments were ensured as an obligation of the researcher to the Employment Equity Act 55 of 1998.
- The results of the research were collected, analysed and reported in a fair, reliable and valid manner.
- The participants were informed that the results of the study would remain completely confidential and anonymous. The information about any participant would be respected as private. The personal information of participants would only be known by the researchers, who would ensure that each participant would be unrecognisable in the reporting of the study results.

## **5.5 FORMULATION OF RESEARCH HYPOTHESES**

According to Kerlinger and Lee (2000), hypotheses are statements that contain two or more variables that are measurable or potentially measurable and they specify how the variables might be predictably related. In the literature review section of the research, the central hypothesis was formulated to determine the relationship between sources of work stress, psychological attachment and attitudes towards change. The research hypotheses below were formulated in alignment to the empirical objectives of this study.

Table 5.5

*Research Hypotheses*

<b>Research aim</b>	<b>Research hypothesis</b>	<b>Statistical procedures</b>
<p><b>Research aim 1:</b> To assess the empirical inter-relationships between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change as displayed in a sample of respondents in the South African FMCG context</p>	<p>H01: There is no statistically significant positive inter-relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.</p> <p>Ha1: There is a statistically positive inter-relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.</p>	<p>Zero-order (bivariate) correlations</p>
<p><b>Research aim 2:</b> To assess the overall statistical relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) as independent variables and attitudes towards change (as the dependent variable)</p>	<p>H02: There is no statistically significant overall relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.</p> <p>Ha2: There is a statistically significant overall relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.</p>	<p><u>Inferential statistics:</u> Canonical correlations</p>

Research aim	Research hypothesis	Statistical procedures
<p><b>Research aim 3:</b> To assess whether psychological attachment (organisational commitment and job embeddedness) significantly mediate the relationship between sources of work stress and attitudes towards change</p>	<p>H03: Psychological attachment (organisational commitment and job embeddedness) does not significantly mediate the relationship between sources of work stress and attitudes towards change.</p> <p>Ha3: Psychological attachment (organisational commitment and job embeddedness) significantly mediates the relationship between sources of work stress and attitudes towards change.</p>	<p><u>Inferential statistics:</u> Mediation modelling</p>
<p><b>Research aim 4:</b> To assess whether the biographical variables (age, gender, race and employment level) significantly moderate the relationship between sources of work stress and attitudes towards change</p>	<p>H04: The biographical variables (age, gender, race and employment level) do not significantly moderate the relationship between sources of work stress and attitudes towards change.</p> <p>Ha4: The biographical variables (age, gender, race and employment level) significantly moderate the relationship between sources of work stress and attitudes towards change.</p>	<p><u>Inferential statistics:</u> Hierarchical moderating regression analysis</p>

Research aim	Research hypothesis	Statistical procedures
<p><b>Research aim 5:</b> To assess whether the biographical variables (age, gender, race and employment level) that functioned as significant moderating variables in the sources of work stress-attitudes towards change relation differ significantly regarding their sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change</p>	<p>H05: The biographical variables (age, gender, race and employment level) that did not function as significant moderating variables in the sources of work stress-attitudes towards change relation do not differ significantly regarding their sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.</p> <p>Ha5: The biographical variables (age, gender, race and employment level) that functioned as significant moderating variables in the sources of work stress-attitudes towards change relation differ significantly regarding their sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.</p>	<p>Tests for significant mean differences</p>

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Note: H0 (null hypothesis); Ha (alternative hypothesis)

## 5.6 DATA ANALYSIS

The statistical package for the social sciences 2.0 (SPSS, 2003) programme, SAS was used for the canonical correlations and the M-Plus 7.2 programme (Muthén & Muthén, 2014) was used for the statistical analysis. The detailed techniques used in this research will be discussed below. Data analysis is the process in which data is interpreted to explore the answers to the research questions and to test the various research hypotheses. This process involves the following three basic steps: (1) organising the data, (2) providing a description of the data, and (3) testing the various models and hypotheses (Creswell, 2009; De Vos et al., 2011).

In step 1, organising the data phase, the data is scrutinised, checked for accuracy prior to entering it into the system. The data is then developed into a database that assimilates the various measures. This process was executed by a statistician. In step 2, providing a description of the data, basic synopses of the sample in alignment to the measuring instruments are provided. This is referred to as the descriptive statistics (Creswell, 2009; De Vos et al., 2011; Hair et al., 2010). In step 3, testing the various models and hypotheses, correlational and inferential (multivariate) statistics are used to test the research questions, models and hypotheses. In other words, inferences are made from the data to the sample (Hair et al., 2010). In the process of determining the overall psychological change profile of the sample, there was a rigorous analysis of whether or not a relationship exists between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. Moreover, the sample's biographical characteristics (age, gender, race and employment level) were examined as potential moderators in the relationship between sources of work stress and attitudes towards change. This rigorous analysis was conducted by means of three stages during the statistical analysis. This is illustrated in Figure 5.5 below.

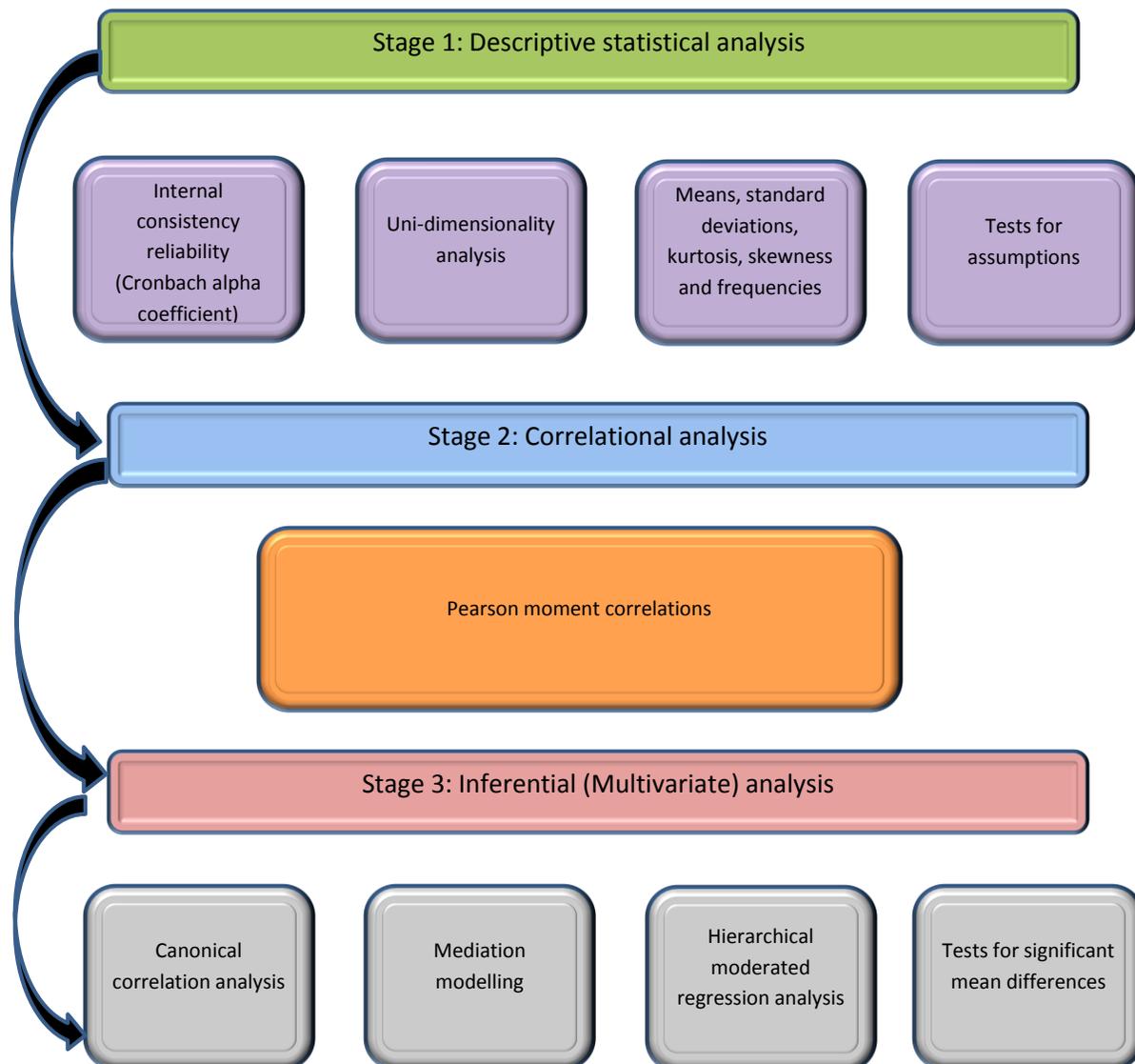


Figure 5.5. Data analysis process

### 5.6.1 Stage 1: Descriptive statistical analysis

The descriptive statistics used in this empirical research were means, standard deviations and frequencies which involved a process of analysis of the numerical data retrieved from the sample, discrete or continuous, that yielded information on spread, centring or normality (De Vos et al., 2011).

Stage 1 consisted of four steps:

- Step 1: Establishing the *internal consistency reliability* of the instruments. This was indicated by the Cronbach alpha coefficient
- Step 2: Assessing the *unidimensionality* of the instruments through Rasch analysis
- Step 3: Establishing the *means, standard deviations, kurtosis, skewness and frequency of data*
- Step 4: Lastly, *testing assumptions*

Each of the four steps is discussed below.

#### *5.6.1.1 Step 1: Internal consistency reliability*

Reliability of a measuring instrument can be defined as whether or not the instrument measures the same item repeatedly with the same outcome. Moreover, each item on the scale needs to correlate (Creswell, 2009; Hair et al., 2010). Acceptable reliability ranges from .70 to .75 (Terre Blanche et al., 2006). However, Anastasi (1976) indicated that acceptable reliability should range from 0.80 to 0.90 as this impacts the accuracy with which the test results can be interpreted. However, Hair et al. (2010) regard .60 as the lower limit for broad research purposes in the social sciences. The Cronbach alpha is a dominant measure of internal reliability consistency and was applied in this empirical research to determine the reliabilities of the measuring instruments used. The Cronbach alpha typically ranges from 0, which implies there is no internal consistency to 1, which is the maximum that can be achieved (Terre Blanche et al., 2006).

#### *5.6.1.2 Step 2: Unidimensionality*

Unidimensionality is determined by Rasch analysis by calculating the chi-square statistics, which yield an outcome of how well the items measured the constructs being measured. Moreover, according to Hair et al. (2010), latent variables are assessed through the items for all individuals in the samples – hence fit can be established.

### *5.6.1.3 Means, standard deviations, kurtosis and skewness, frequency data*

The means and standard deviations were determined for all dimensions under investigation in the study, that is, sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. The mean is the average score across the sample, where the standard deviation can be defined as how far from the mean the scores deviate (Creswell, 2009). Moreover, skewness and kurtosis were also important to be determined in the empirical study.

Skewness denotes the degree or lack of symmetry. When applying skewness to data, symmetrical data occur when the data on each side of the average point are the same. Positive values of skewness shows that data are skewed right and negative values of skewness show that data are skewed left. Kurtosis means that data are relatively flat or peaked in relation to the normal distribution. These values (skewness and kurtosis) range between -1 and +1 (Creswell, 2009; Hair et al., 2010).

Frequency distribution was used in this empirical study to assess the distribution of scores on a variable that is biographical data which enable the researcher to better understand the sample profile characteristics (Creswell, 2009; Hair et al., 2010).

### *5.6.1.4 Testing assumptions*

Testing assumptions was a primary objective of the empirical research in order to assist the researcher to make inferences from the sample to the broader population. The inferences made from the sample are usually difficult as the sample may not be an accurate representation of the population. Hence tests for assumptions through confidence levels provide the researcher with confidence to determine inferences. Null hypotheses are another method that can be used to assist the researcher with inferences (Hair et al., 2010). Other factors such as (1) outliers, (2) multicollinearity and singularity, (3) accuracy of data and missing values, (4) ratio of cases to independent variables, and (5) normality, linearity and homoscedasticity need to be carefully considered. These factors will be explained in the section below.

- (1) *Outliers*. This means that a variable (univariate) or multiple variables (multivariate) has/have an extreme value that influences the statistics in an unexplained manner (Tabachnick & Fidell, 2001). Outliers in this empirical study were determined by reviewing the standardised scores for each variable. Outliers need to be carefully dealt with to ensure confidence when interpreting results.
- (2) *Multicollinearity and singularity*. When variables are extremely highly correlated, multicollinearity occurs ( $r = .90$ ). By contrast, singularity occurs when variables correlate seamlessly. High correlations without explanation in the results may be an issue for the researcher (Hair et al., 2010). In terms of this empirical research, no issues of multicollinearity were experienced.
- (3) *Accuracy of data and missing values*. Accuracy of data is critical to the interpretation of the results. As such, the researcher ensured data from the sample were screened for miscoding and missing values. By using SPSS, data were screened in terms of minimums, maximums, means and standard deviations (Hair et al., 2010). The results of this screening showed that the data fell within an acceptable standard. Moreover, by utilising a rigorous data collection process, no missing value issues were experienced.
- (4) *Ratio of cases to independent variables*. The sample size in relation to the population is essential to ensure confidence when interpreting the results. Generally, an adequate sample size to enable testing of multiple correlation coefficients is determined by the equation:  $n \geq 50 + 8m$  (number of independent variables). In terms of this equation, the standard conventional alpha level between the dependent and independent variables is assumed to be ( $\alpha = .05$  and  $\beta = .20$ ). Hence the sample size of  $N = 350$  was more than acceptable for this study in terms of statistical power.
- (5) *Normality, linearity and homoscedasticity*. The assumption that every variable is normally distributed and independent is referred to as multivariate normality. This includes all linear groupings of the variables. As variables move away from normality, the inferences a researcher is able to make become more difficult. The current study made use of skewness and kurtosis to assess the normality of variables. Linearity exists when there is a straight-line relationship between the variables being tested on a scatterplot (bivariate). In terms of homoscedasticity, the variability of scores yielded for one continuous variable is approximately at the same value for another continuous variable. The phenomenon of homoscedasticity is closely correlated to normality because when normality is achieved, the variables are homoscedastic.

In this empirical research, bivariate scatterplots were applied to all potential variable pairs to test for linearity and homoscedasticity. No issues were evident (Hair et al., 2010; Tabachnick & Fidell, 2001).

### **5.6.2 Stage 2: Correlational analysis**

Correlational analysis was used in this research to test the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. Pearson's product moment correlation coefficient ( $r$ ) was used to calculate both the strength of and direction between the variables. According to (Neuman, 2000; Steyn, 1999), the strength of the linear relationship was determined by the absolute value of  $r$ . A negative value reflects an inverse relationship between variables. A strong correlation does not necessarily denote a cause-effect relationship. For the purposes of this empirical study,  $r \geq .30$  was the cut-off point and  $p \leq .05$  was used to assess the correlation coefficients between the variables.

### **5.6.3 Stage 3: Inferential and multivariate statistical analysis**

Inferential and multivariate statistics were used in this research to allow the researcher to make inferences from the sample. Stage 3 comprised of the four steps below:

- (1) *Step 1. Canonical correlation analysis* was used to assess the overall relationship between the independent latent variable (sources of work stress), psychological attachment (organisational commitment and job embeddedness) and dependent latent variable (attitudes towards change).
- (2) *Step 2. Mediation modelling*, using structural equation modelling (SEM) methods was applied to assess whether psychological attachment (organisational commitment and job embeddedness) significantly mediated the relationship between sources of work stress and attitudes towards change.
- (3) *Step 3. Hierarchical moderated regression analysis* was used to assess whether the biographical variables (age, gender, race and employment level) moderated the relationship between sources of work stress and attitudes towards change.
- (4) *Step 4. Tests for significant mean differences* were used to determine whether significant differences existed between the biographical variables that functioned as moderators

between the sources of work stress (independent variable), psychological attachment (organisational commitment and job embeddedness) (mediating variables) and attitudes towards change (dependent variable).

#### 5.6.3.1 Step 1: Canonical correlation analysis

Canonical correlation analysis represented step 1 in the inferential statistical analysis and was used to determine the overall potential relationship between the independent latent variable (sources of work stress and psychological attachment – i.e. organisational commitment and job embeddedness) and dependent latent variable (attitudes towards change).

Canonical correlation analysis is a statistical technique that enables one to study linear interrelationships between two sets of variables (independent and dependent variables) – a canonical variate is formed for each set (Hair et al., 2010). Canonical variates can be compared to a variate or linear composite formed from a set of independent variables in multiple regressions. However, in canonical correlation, there is also a variate stemming from several dependent variables, whereas in multiple regressions only one variable can be accommodated (Hair et al., 2010).

Moreover, canonical correlation analysis cultivates a canonical function that will maximise the canonical correlation coefficient between two variables. The measure of the strength between two variates is conveyed as a canonical correlation coefficient ( $R_c$ ) (Hair et al., 2010). Canonical analysis also resembles the factor analysis and principal component analysis in the development of dimensionality of every variable set that capitalises on the relationship between the dependent and independent variable (Hair et al., 2010). One should note that canonical analysis focuses on the linear relationships between the two variates, whereas factor analysis and principal component analysis focus on the linear relationship between a set of an unknown number of variates.

According to Hair et al. (2010), canonical correlation analysis has many benefits for the researcher, as highlighted below.

- (1) It limits type I errors. The risk of type I errors correlates to the probability of finding a statistically significant result even though this may not exist.

- (2) It demonstrates an accurate reality of the current study and variables under investigation.
- (3) It can assist the researcher to identify more than two exceptional relationships should they exist.

The researcher needs to ensure that the results derived from the sample using canonical correlation analysis are generalisable to the broader population. Furthermore, according to Hair et al. (2010), the following limitations also exist when using canonical analysis:

- (1) Canonical correlation analysis can be interpreted by canonical weights. Variables with larger weights contribute more to the variates. The same can be said of variables with smaller weights. Because canonical weights are derived to maximise the canonical correlations, they may be exposed to instability from one sample to another.
- (2) Canonical weights are also derived to maximise the correlation between linear composites and not the variance removed.

According to Hair et al. (2010), the redundancy index of a canonical variate is equal to the percentage of variance described by its own set of variables multiplied by the squared canonical correlation for the pair of variates. The redundancy of indices for the independent variables describing the dependent variables is set out below:

$$Rly1: x = SVx_1 \times Rc1^2$$

$$Rly2: y = SVx_2 \times Rc2^2$$

### 5.6.3.2 Step 2: Mediation modelling

Mediation modelling denotes the second stage of the inferential statistical analysis, which enabled the researcher to test if psychological attachment (organisational commitment and job embeddedness) significantly mediated the relationship between experiences of sources of work stress and attitudes towards change. Mediation modelling using structural equation modelling (SEM) techniques was implemented. According to Garson (2009), structural SEM relates to statistical techniques that include path analysis and factor analysis. Moreover, SEM utilises different types of models to illustrate relationships between variables with the aim of testing the theoretical model.

The SEM model consisted of two main parts, that is, the measurement model and structural model. In the measurement model, the latent variables were tested through confirmatory factor analysis (CFA) before testing the underlying structural mediation model. It should be noted that in SEM there are typically two types of variables, that is, latent variables (which are not directly observable – i.e. indirectly observed) and observed variables (i.e. variables that infer or define the latent variable). Moreover, regression paths were added to the measurement model to constitute a structural model. The structural model was tested by using latent variable modelling as implemented by MPlus version 7.2 (Muthén & Muthén, 2014). The structural model was a modification of the best fit measurement model and consisted of the following latent variables: experiences of sources of work stress as a single first-order factor; affective commitment; continuance commitment and normative commitment as first-order factors; job embeddedness as a second-order factor on to which links, fit and sacrifice loaded; and attitudes towards change as a single first-order factor. Table 5.6 below provides an overview and summary of the main components of SEM.

Table 5.6

*Summary of the Main Components of SEM*

<b>Components of SEM</b>	<b>Description of the components</b>
Confirmatory factor analysis	Confirmatory factor analysis (CFA) is a statistical technique used to validate the factor structure of a set of observed variables. CFA permits the researcher to test the hypothesis that a relationship exists between observed variables and their underlying latent constructs (Hu & Bentler, 1999; Suhr, 2006). CFA models allow the researcher to determine the role of measurement error and confirm a multifactorial model (Suhr, 2006).
Regression model	In the regression model, the single, observed dependent variable is explained or predicted by one or more independent observed variables (Hair et al., 2006).

Components of SEM	Description of the components
Path model	Path model analysis is an extension of the regression model. A path model consists of observed variables that allow the researcher to test more than one dependent and independent variables (Garson, 2008).

Lastly, the model acceptability was determined through the goodness of fit measures. This will further be explained in section 5.6.4.

### 5.6.3.3 Step 3: Hierarchical moderated regression analysis

Hierarchical moderated regression analysis represents step 3 in the inferential analysis and is used to determine how a variable moderates or influences the relationship between variables (Hair et al., 2010). Moderation occurs when the moderator variable, a second independent variable, changes the form of the relationship between another independent variable and dependent variable. For example, it could be concluded that a relationship is moderated by gender if it was found that the relationship between the two variables differed significantly between females and males (Hair et al., 2010).

Predictor-criterion relationship analysis specifically provides information on the strength of the relationship between variables. This is denoted through either slopes of regression lines, coefficients or percentages of misclassifications (Hair et al., 2010). Moreover, exploring the statistical significance of the difference in  $R^2$  values assists the researcher to determine the moderating effect, which is shown by statistically significant differences in the dependent and independent variable correlation coefficients for more than two moderator variable based subgroups (Hair et al., 2010).

### 5.6.3.4 Step 4: Tests for significant mean differences

Tests for significant mean differences represents step 4 in the inferential statistical analysis. The Kruskal Wallis test, a non-parametric test, was used to enable the researcher to determine if there were any significant differences between the groups of biographical variables (age, race and employment level) that acted as significant moderators between the sources of work stress

(independent variable), psychological attachment (organisational commitment and job embeddedness) (mediating variables) and attitudes towards change (dependent variable). Research hypothesis Ha5 was thus tested by using the Kruskal Wallis test.

#### 5.6.4 Statistical significance level

The statistical significance level is paramount when testing the hypotheses. The most generally used statistical differences are grounded on  $p \leq .05$  as a rule, thus providing 95% confidence in the results being recognised as the standard when being contextualised to other research perspectives (Neuman, 2000). It is important to acknowledge that the researcher can make two types of common errors, that is, type I and type II errors. A type I error occurs when the researcher falsely *rejects* a null hypothesis by affirming that a relationship exists when there is no relationship. A type II error happens when the researcher falsely *accepts* a null hypothesis by maintaining that a relationship exists, when there is no relationship between the variables.

The level of significance articulates statistical significance in terms of giving the specific probability – hence different levels of significance are identified. Table 5.7 shows the different levels of statistical significance.

Table 5.7

*Various Levels of Statistical Significance (Tredoux & Durrheim, 2002)*

Probability	Level/range	Significance
$p$	.001	Extremely significant
$p$	.001 - .01	Very significant
$p$	.01 - .05	Significant
$p$	.10	Least significant

According to Tredoux and Durrheim (2002), when the t-test of significance is conducted and the  $p$  value yields a low significance value, the null hypothesis (H0) will be rejected. The alternative (Ha) will therefore be accepted because the results will be statistically significant.

#### 5.4.6.1 Level of statistical significance: Correlational analysis

In this study,  $p \leq .05$  as a statistical difference was applied which means that there was a 95% confidence level. According to Hair et al. (2010), the researcher needs to be aware of the type I and type II errors. Type I errors occur when the researcher falsely rejects the null hypotheses, whereas type II errors occur when the researcher falsely accepts the null hypotheses. According to Cohen, Cohen, West, and Aiken (2003), the Pearson moment correlations coefficient ( $r$ ) enables the researcher to make a more informed decision by determining the magnitude of the effect.

Table 5.8

*Effect Size Determined by Pearson Moment Correlation (Cohen et al., 2003)*

<b>Effect Size</b>	<b>Pearson moment correlation coefficient (<math>r</math>)</b>
Large effect	$r \leq .50$
Medium effect	$r \geq .30 \leq .49$
Small effect	$r \leq .20$

The significance level of a canonical correlation considered to be the minimum acceptable is the .05 level, where .01 has become more acceptable to regard as statistically significant. Moreover, a multivariate test of all canonical roots can also be done to evaluate the significance of discriminant functions. These multivariate tests include Wilk's lambda, Hotelling's trace, Pillai's trace and Roy's greatest characteristic root (gcr). The researcher needs to consider the practical significance of the canonical functions, which is represented by the size of the canonical correlations, when deciding which functions to interpret. The general rule of thumb regarding the suitable size for correlations is said to be an Rc loading of  $\geq .30$ . In terms of this empirical study, the level of significance chosen as a cut-off point for this study that was acceptable to reject the null hypotheses was  $r \geq .30$  and  $p \leq .05$ .

#### 5.4.6.2 Level of statistical significance: Mediation modelling (SEM)

According to Hancock and Mueller (2006) and Hair et al. (2010), it is best practice to ensure the researcher reports multiple fit indices in SEM. For the purposes of this study, the chi-square, comparative fit index (CFI), Tucker-Lewis index (TLI), the root means square error of

approximation (RMSEA), the weighted root mean square residual (WRMR), AIC (the Akaike information criterion) and BIC (Bayes information criterion) fit indices were used.

- (1) *Chi-square*. The chi-square was used as a goodness-of-fit test. According to Garson (2008), the chi-square assists the researcher to determine the difference between the observed data and the hypothesised model. In terms of significance, a significant chi-square indicates a poor model fit, whereas a non-significant chi-square indicates a good model fit. It is important for the researcher to also note that the sample size does in fact affect the chi-square values – hence the need to take this into consideration when interpreting the results.
- (2) *The comparative fit index (CFI)*. The CFI was used in this study because it provides a measure of fit of the hypothesised model in comparison to an independent model. The CFI should be at least .90 in order to be accepted as a good model fit (Bentler, 1990).
- (3) *The Tucker-Lewis index (TLI)*. The TLI was applied to determine co-variation in the model, where a cut-off point close to .95 is generally acceptable (Hancock & Mueller, 2006).
- (4) *The root means square error of approximation (RMSEA)*. The RMSEA was used in this research to indicate the extent of the discrepancy between the covariance matrix and the reproduced covariance matrix. RMSEA measures the error of approximation in the population separately from the error of estimation attributed to sampling errors. Accordingly, in this empirical research, because the sample size was large, even small differences between the data and the model would yield a statistically significant result (Garson, 2008). According to Brown and Cudeck (1993), RMSEA and the 90% confidence level of RMSEA need to be used as a method to deal with the issue of sample size. The objective of the RMSEA is to evaluate the extent to which the model fails to fit the data – hence RMSEA estimates the general amount of error. According to Hu and Bentler (1999) and Raykov and Marcoulides (2000), RMSEA point estimates should be .05 or less of which the upper limit of the confidence interval should not exceed 0.08 or .06 respectively.
- (5) *The weighted root mean square residual (WRMR)*. This is a measure that Muthén and Muthén (2014) have suggested for fit of models with categorical observed variables. A model with a WRMR of less than 1.0 indicates good fit.
- (6) *AIC (Akaike information criterion) and BIC (Bayes information criterion)*. AIC is a comparative measure of fit and is meaningful when different models are estimated; BIC is a measure that provides an indication of model parsimony (Kline, 2010).

Both the AIC and BIC can be used to compare competing models and make a trade-off between model fit and model complexity (a computation of the number of parameters). A lower AIC or BIC value shows a better trade-off between fit and complexity. There is no rule of thumb. The values depend on the actual dataset and the model basically chooses the model with the lowest IC value (Kline, 2010).

#### 5.4.6.3 *Level of statistical significance: Hierarchical moderated regression*

Cohen (1992) provided the following guidelines for determining the degree of significance of regression:

- large practical effect:  $R^2 \geq .26$
- medium practical effect: adjusted  $R^2 \geq .13 \leq .25$
- Small practical effect: adjusted  $R^2 \leq .12$

According to Cohen and Cohen (1983), the F-statistic for the increase in  $R^2$  equals the square of the t-statistic (interaction term). As an example, the significant t-value of the coefficient of the interaction term suggests a significant moderating effect of X1 on the relationship between X2 and Y.

Hence the effect size estimate for the interaction term ( $f^2$ ) was deliberated during the interpretation of moderated regression. The  $f^2$  can deliver the proportion of systematic variance accounted for by the interaction, relative to the unaccounted variance in the criterion. Cohen and Cohen (1983) and Steyn (1999) suggest the following guidelines:

$f^2 = .02$  (small effect)

$f^2 = .15$  (moderate effect)

$f^2 = .35$  (large effect)

#### 5.4.6.4 *Level of statistical significance: Tests for significant mean differences*

The probability of  $p \leq .5$  means that the analysis is both significant and valid. Tests for significant mean differences are required to analyse differences on the biographical variables in relation to all variables in the study, especially when there is non-normality of the data.

## 5.7 CHAPTER SUMMARY

This chapter discussed the empirical investigation process. The population and sample, the measuring instruments, data collection and data analysis processes were explained. The chapter concluded with the formulation of the research hypotheses.

Chapter 6 will deliberate the following research aims relating to the empirical research:

**Research aim 1:** To assess the empirical inter-relationships between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change as displayed in a sample of respondents in the South African, FMCG context.

**Research aim 2:** To assess the overall statistical relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) as independent variables and attitudes towards change (as the dependant variable).

**Research aim 3:** To assess whether psychological attachment (organisational commitment and job embeddedness) significantly mediates the relationship between sources of work stress and attitudes towards change.

**Research aim 4:** To assess whether the biographical variables (age, gender, race and employment level) significantly moderate the relationship between sources of work stress and attitudes towards change.

**Research aim 5:** To assess whether the biographical variables function as significant moderating variables in the sources of work stress attitudes toward change relation and whether participants differ significantly regarding their sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.

Chapter 6 deals with the statistical results obtained from the empirical study.

## CHAPTER 6: RESEARCH RESULTS

This chapter discusses the statistical results derived from the empirical study. The statistical results are reported in terms of descriptive, correlational and inferential (multivariate) statistics. Lastly, the integration of the literature review and empirical study is also explained.

### 6.1 DESCRIPTIVE STATISTICS

This section discusses the steps relevant to descriptive statistics, namely (1) the internal consistency reliability of the measuring instruments using Cronbach's alpha coefficients; (2) the unidimensionality of the measuring instruments by means of Rasch analysis; and (3) the means, standard deviations, bivariate correlations, kurtosis and skewness of the categorical data and frequency data.

#### 6.1.1 Reporting and interpretation of internal consistency reliability: Rasch analysis and Cronbach's alpha coefficients of the measures

This section reports on the internal consistency and scale reliability of the following measuring instruments: The sources of job stress scale (SJS), the organisational commitment questionnaire (OCQ), the job embeddedness questionnaire (JEQ) and the attitudes towards change questionnaire (ACQ). Rasch analysis was performed on all the items of each scale to evaluate the reliability (determined by the item separation index and item reliability index and the person separation index and the person reliability index) of each dimension of the relevant scale. Rasch analysis was also used to evaluate the unidimensionality (validity) of the overall scale and its dimensions by calculating the infit and outfit chi-square statistic. This was done to determine how well the items measure the underlying constructs of each scale dimension (Bond & Fox, 2007).

##### 6.1.1.1 Sources of job stress scale (SJS)

Table 6.1 below reports an acceptable Cronbach alpha coefficient ( $\alpha = .89$ ) and item reliability ( $\geq .97$ ) for the overall sources of job stress scale (SJS), indicating that the items of the scale differentiated well among the measured variable ( $> .80$ ).

The item separation and person separation for the overall SJS ( $\geq 2.22$ ) were adequate compared to the guideline of at least (2.00), which means that participants would probably have indicated similar responses in other contexts. Moreover, item and person separation indices revealed that logical information was provided (Bond & Fox, 2007).

The mean item fit and person fit were acceptable, showing that the responses neither underfitted ( $\geq 1.30$ ) nor overfitted ( $\leq 0.70$ ). This indicates that the Rasch item and the person fit results suggest that the items of the SJS provided logical and useful information.

Table 6.1

*Descriptive Statistics: Rasch Summary Statistics for the Sources of Job Stress Scale (SJS)*

<b>Scale Dimension</b>	<b>Average measure (SD)</b>	<b>Infit (SD)</b>	<b>Outfit (SD)</b>	<b>Separation</b>	<b>Reliability</b>	<b>Alpha</b>
<b>Scale overall</b>						
Person	.42 (1.33)	.98(.73)	.98(.73)	2.22	.83	.89
Item	.00 (.40)	.99 (.15)	.98 (.13)	5.55	.97	-

*Note:* N = 350

Because the SJS consists of six one-item dimensions which cannot be measured by the Rasch statistics, item reliability for each dimension was also determined. Table 6.2 reports acceptable item reliability for the six items of the SJS, which ranged from .86 to .89. These results indicate that the internal consistency coefficient reliability of the SJS could be considered adequate for purposes of this empirical study.

Table 6.2

*Internal Consistency Reliability of the SJS items*

<b>Variable</b>	<b>Cronbach alpha coefficient</b>
Overall SJS	.89
Job and role ambiguity	.87
Relationships	.86
Job tools and equipment	.87
Career advancement prospects	.87
Job security	.88
Lack of job autonomy	.86

*Note:* N = 350

### 6.1.1.2 *The Organisational Commitment Questionnaire (OCQ)*

As indicated in Table 6.3, the Cronbach alpha coefficient value for the overall scale of the OCQ ( $\alpha = .67$ ) and the subscales ranged from .16 (affective commitment) to .73 (normative commitment). The internal consistency reliability of the OCQ and the continuance and normative commitment dimensions were deemed to be acceptable for broad research purposes. Hair et al. (2010) regard .60 as the lower limit of acceptability for broad research purposes in the social sciences. With the exception of normative commitment, the item separation for the continuance and affective commitment dimensions of the OCQ ( $\geq 4.13$ ) were sufficient compared to the guideline of at least 2.00 and/or higher (Bond & Fox, 2007). The Rasch reliability statistics further suggested that the affective commitment items did not differentiate well between the measured variable. The internal consistency reliability, person separation index and reliability of the affective commitment dimension were extremely low. This finding was taken into account in the statistical analyses and interpretation of the findings.

Table 6.3 shows that the person and item infit and outfit statistics of all the OCQ dimensions were either close to or higher than the threshold value of 1.00 suggested by Cervellione, Lee, and Bonnano (2009). The mean item fit and person fit also showed that the responses neither underfitted ( $\geq 1.30$ ) nor overfitted ( $\leq .70$ ).

According to the guidelines provided by Bond and Fox (2007), the item statistics suggested that useful and logical information was obtained from the participants and those participants in other settings would probably have provided the same answers. The person fit statistics suggested that the participants responded to the items of each dimension consistently. The continuance commitment dimension showed the highest person average measure (.17;  $SD = .51$ ), while the affective dimension showed the lowest person average measure (.02;  $SD = .30$ ).

Table 6.3

*Descriptive Statistics: Rasch Summary Statistics for the OCQ*

Scale dimension	Average measure (SD)	Infit (SD)	Outfit (SD)	Separation	Reliability	Alpha
<b>Scale overall</b>						
Person	.08 (.25)	1.02 (.73)	1.02 (.72)	1.53	.70	.67
Item	.00 (.15)	1.00 (.19)	1.02 (.21)	4.28	.95	-
<b>Affective commitment</b>						
Person	.02 (.30)	.99 (.91)	.99 (.90)	.83	.41	.16
Item	.00 (.15)	1.00 (.10)	0.99 (.08)	4.13	.94	-
<b>Continuance commitment</b>						
Person	.17 (.51)	1.07 (.94)	1.06 (.93)	1.77	.76	.71
Item	.00 (.21)	1.00 (.29)	1.06 (.40)	5.45	.97	-
<b>Normative Commitment</b>						
Person	.06 (.63)	1.11 (1.24)	1.11 (1.24)	1.63	.73	.73
Item	.00 (.06)	1.00 (.92)	1.11 (1.13)	1.00	.50	-

Note: N = 350

### 6.1.1.3 *The job embeddedness questionnaire (JEQ)*

Table 6.4 shows that the Cronbach alpha coefficients for the JEQ dimensions ranged between .71 and .89. The alpha coefficients for the overall scale ( $\alpha = .91$ ) and the links dimension ( $\alpha = .71$ ), the fit dimension ( $\alpha = .89$ ) and sacrifice dimension ( $\alpha = .89$ ) were higher than the guideline of  $\geq .70$  (Hair et al., 2010). The person and item reliability indicated that the items of the scale differentiated well among the measured variables. The item separation for all the dimensions of the JEQ ( $\geq 7.62$ ) were sufficient compared to the guideline of at least 2.00 and/or higher (Bond & Fox, 2007). This finding indicated that useful data were obtained from the JEQ measurement. The somewhat lower person separation index for the links dimension (1.57) indicated either that this subdimension did not separate or discriminate well among respondents with different abilities, or that the respondents misunderstood the items, or that they were reluctant to answer the questions with the required intensity (Bond & Fox, 2007). The links dimension showed the highest person average measure (.97;  $SD = 1.15$ ), while the sacrifice dimension showed the lowest person average measure (.38;  $SD = 1.05$ ). The mean item fit and person fit were acceptable, showing that the responses neither underfitted ( $\geq 1.30$ ) nor overfitted ( $\leq .70$ ). Overall, the Rasch item and the person fit results suggest that the items of the JES provided consistent and useful information (Bond & Fox, 2007).

Table 6.4

*Descriptive Statistics: Rasch Summary Statistics for the JEQ*

<b>Scale dimension</b>	<b>Average measure (SD)</b>	<b>Infit (SD)</b>	<b>Outfit (SD)</b>	<b>Separation</b>	<b>Reliability</b>	<b>Alpha</b>
<b>Scale overall</b>						
Person	.53 (.74)	1.05 (.64)	1.04 (.62)	3.21	.91	.91
Item	.00 (.47)	1.00 (.30)	1.04 (.36)	9.19	.99	-
<b>Links</b>						
Person	.97 (1.15)	1.00 (.98)	.98 (1.00)	1.57	.71	.71
Item	.00 (.98)	1.00 (.22)	.99 (.22)	14.87	1.00	-
<b>Fit</b>						
Person	.91 (1.30)	1.02 (.96)	1.01 (.96)	2.50	.86	.89
Item	.00 (.57)	.99 (.45)	1.01 (.55)	8.94	.99	-
<b>Sacrifice</b>						
Person	.38 (1.05)	1.05 (.94)	1.02 (.91)	2.84	.89	.89
Item	.00 (.43)	.98 (.25)	1.02 (.29)	7.62	.98	-

Note: N = 350

#### 6.1.1.4 The attitudes towards change questionnaire (ACQ)

Table 6.5 shows acceptable item reliability for the overall scale ( $\alpha = .97$ ) and the three scale dimensions ( $\alpha \geq .86$ ), indicating that the items of the scale differentiated well among the measured variables. The item separations for all the dimensions of the JES ( $\geq 2.48$ ) were sufficient compared to the guideline of at least 2.00 and/or higher (Bond & Fox, 2007). With the exception of the overall ACQ dimension (2.31) and cognitive dimension (2.39), the person separation indices for the dimensions of the ACQ were lower than the proposed guideline of 2.00 and/or higher. The low person separation indices indicate either that the subdimensions did not discriminate well among respondents with different abilities, or that the respondents misunderstood the items, or that they were reluctant to answer the questions with the required intensity (Bond & Fox, 2007). The person separation reliability of the affective dimension was 0.00 which also indicates low internal consistency reliability for this dimension. This finding was taken into account in the statistical analyses and in the interpretation of the findings.

The behavioural dimension showed the highest person average measure (.20; *SD* = .96) and the cognitive dimension showed the lowest person average measure (-1.67; *SD* = 1.83). The mean item fit and the person fit were acceptable, showing that the responses neither underfitted ( $\geq 1.30$ ) nor overfitted ( $\leq .70$ ). Overall, the Rasch item and the person fit results suggest that the items of the ACQ provided logical and useful information for all the participants and that the participants responded to the items in a consistent manner. The infit and outfit values showed a good fit of the data (close to 1.00), indicating the unidimensionality of the ACQ.

Table 6.5

*Descriptive Statistics: Rasch Summary Statistics for the ACQ*

<b>Scale dimension</b>	<b>Average measure (SD)</b>	<b>Infit (SD)</b>	<b>Outfit (SD)</b>	<b>Separation</b>	<b>Reliability</b>	<b>Alpha</b>
<b>Scale overall</b>						
Person	-1.42 (.61)	1.05 (.75)	1.06 (.76)	2.31	.84	.82
Item	.00 (.31)	.99 (.60)	1.06 (.69)	5.67	.97	-
<b>Affective</b>						
Person	.14 (.33)	1.01 (.71)	1.01 (.72)	.00	.00	.00
Item	.00 (.13)	1.00 (.15)	1.01 (.15)	2.48	.86	-
<b>Cognitive</b>						
Person	-1.67(1.83)	.98 (.89)	.98 (.90)	2.39	.85	.87
Item	.00 (.29)	.99 (.17)	.98 (.17)	3.77	.93	-
<b>Behavioural</b>						
Person	.20 (.96)	1.00 (.86)	1.05 (.97)	1.64	.73	.68
Item	.00 (.66)	.98 (.34)	1.05 (.45)	10.30	.99	-

*Note:* N = 350

In summary, the sources of job stress scale (SJS), the organisational commitment questionnaire (OCQ), the job embeddedness questionnaire (JEQ) and the attitudes towards change questionnaire (ACQ) showed acceptable internal consistency and scale reliability. In terms of the sources of job stress scale (SJS), an overall acceptable Cronbach alpha coefficient ( $\alpha = .89$ ) and item reliability ( $\geq .97$ ) were obtained.

In terms of the organisational commitment questionnaire (OCQ), the overall Cronbach alpha coefficient ( $\alpha = .67$ ) was obtained and the subscales ranged from .16 (affective commitment) to .73 (normative commitment). The internal consistency reliability of the OCQ, continuance and normative commitment were deemed acceptable. However, the Rasch reliability statistics suggested that the affective commitment items did not discriminate well among the measured variables. Moreover, reliability for affective commitment was low.

The person and item infit and outfit statistics of all OCQ dimensions were either close to or higher than 1.00; the mean item fit and person fit also revealed that responses were received in a useful and logical manner (Bond & Fox, 2007).

In terms of the job embeddedness questionnaire (JEQ) the overall Cronbach alpha coefficients ranged between .71 and .89. The alpha coefficients of the overall scale ( $\alpha = .91$ ), the links dimension ( $\alpha = .71$ ), the fit dimension ( $\alpha = .89$ ) and sacrifice ( $\alpha = .89$ ) were all acceptable. The Rasch analysis further indicated that person and item reliability differentiated well among the measured variables, and the item separation for all the dimensions of the JEQ was sufficient, which indicated that useful data were obtained. The links dimension, however, showed a lower person separation index, which means that this dimension did not separate well or the respondents misunderstood the items (Bond & Fox, 2007).

The attitudes towards change questionnaire (ACQ) showed acceptable item reliability ( $\alpha = .97$ ) and the Rasch analysis showed acceptable item separation. In terms of the person separation indices, the dimensions of the ACQ were lower than the guideline of 2.00, with the exception of the ACQ and cognitive dimension. The person separation reliability of the affective dimension was extremely low, 0.00 indicating low internal consistency reliability for this dimension.

### **6.1.2 Testing for common method variance**

Owing to the cross-sectional design of the present study and the collection of self-reported data by means of the same questionnaires during the same period of time, concerns about common method variance were addressed.

Common method variance (a variance attributed to the measurement method rather than the constructs of relevance to the research) may cause systematic measurement error, further bias the estimates of the true relationship between the theoretical constructs, and either inflate or deflate observed relationships between the constructs, thus leading to both type I and type II errors (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). In line with the guidelines provided by Podsakoff et al. (2003), Harman's one-factor test and confirmatory factor analysis were conducted to test the presence of common method effect in the OCQ, JEQ and ACQ. The SJS was not tested for common method effect owing to the single item nature of the scale.

In terms of the OCQ, the three variables (affective, continuance and normative commitment) were subjected to an exploratory factor analysis, using unrotated principal component factor analysis, principal component analysis with varimax rotation and principal axis analysis with varimax rotation to determine the number of factors necessary for accounting for the variance in the variables. The results revealed that the single factor that emerged accounted for 33.17% of the covariance among the variables. The three variables were then loaded on one factor to examine the fit of the confirmatory factor analysis (CFA) model. As shown in Table 6.6, the single-factor model did not fit the data well (CMIN = 917.68;  $df = 226$ ;  $p = .00$ ; GFI = .79; CFI = .82; TLI = .80; RMSEA = .09; SRMR = .12), indicating that common method variance was not largely responsible for the relationship between the variables.

A similar procedure was followed with the JEQ and ACQ. In terms of the JEQ, the single factor that emerged accounted for 38.96% of the covariance among the variables (fit, links, and sacrifice). As shown in Table 6.6, the CFA single-factor model did not fit the data well (CMIN = 968.91;  $df = 185$ ;  $p = .00$ ; GFI = .76; CFI = .82; TLI = .80; RMSEA = .11; SRMR = .10). In terms of the ACQ, the single factor that emerged accounted for 49.53 % of the covariance among the variables (affective, cognitive and behavioural). As shown in Table 6.6, the CFA single-factor model did not fit the data well (CMIN = 1367.44;  $df = 134$ ;  $p = .00$ ; GFI = .70; CFI = .68; TLI = .64; RMSEA = .16; and SRMR = .32). These results showed that the relationship between the variables of the three scales respectively was not largely due to common method variance. The results of the statistical analysis could therefore be interpreted with greater confidence.

Table 6.6

*Results of Tests for Common Method Variance*

	<b>Percentage variance explained by single factor (EFA)</b>	<b>CMIN (df)</b>	<b>GFI</b>	<b>CFI</b>	<b>TLI</b>	<b>RMSEA</b>	<b>SRMR</b>
OCQ	33.17%	917.68 (226)	.79	.82	.80	.09	.12
JEQ	38.96%	968.91(185)	.76	.82	.80	.11	.10
ACQ	49.53%	1367.44 (134)	.70	.68	.64	.16	.32

**6.1.3 Reporting of descriptive statistics: Means and standard deviations**

This section provides the descriptive information on each of the four measuring instruments' subscales. The means and standard deviations for each of the four measuring instruments (SJS, OCQ, JEQ and ACQ) were calculated and are reported in the sections below.

*6.1.3.1 Means and standard deviations of the sources of job stress scale (SJS)*

The SJS is scored by obtaining a mean score across all six items in the overall SJS scale. A mean score is obtained by summing up all individual scores and then dividing by 6. Each item can range from 1 to 5. A 1 is the minimum score if a respondent scores each of the items as a 1; likewise a score of 5 is possible if all items are scored a 5 applicable to the SJS scale. Each of the six items of the SJS represents a core work stress-related construct variable, and a separate mean score is also obtained for each of the six items. Table 6.7 provides the descriptive information for the six items (construct variables) on the SJS. The descriptive information includes the minimum score, maximum score, mean, standard deviation, skewness and kurtosis.

Table 6.7

*Means and Standard Deviations of the SJS (n = 350)*

	Minimum	Maximum	Mean	SD	Skewness	Kurtosis
SJS	1.1	5.0	3.58	1.03	-.25	-.75
Job and role ambiguity	1.0	5.0	3.68	1.21	-.44	-.90
Relationships	1.0	5.0	3.16	1.45	-.07	-1.38
Job tools and equipment	1.0	5.0	3.40	1.33	-.30	-1.13
Career advancement prospects	1.0	5.0	3.69	1.24	-.68	-.48
Job security	1.0	5.0	3.90	1.25	-.88	-.30
Lack of job autonomy	1.0	5.0	3.63	1.24	-.47	-.77

Table 6.7 shows that the mean scores ranged from 3.16 to 3.90, indicating mid-range scores. The sample of participants obtained the highest mean score on job security ( $M = 3.90$ ;  $SD = 1.25$ ), and the lowest mean score on relationships ( $M = 3.16$ ;  $SD = 1.45$ ). The standard deviations ranged from 1.03 and 1.45. The skewness values for the SJS ranged from  $-.07$  to  $-.88$ , indicating that the distribution was flatter than a normal distribution with a broader peak to the left. The kurtosis values ranged from  $-.30$  to  $-1.38$ , thereby falling within the  $-1$  and above  $1$  normality range suggested for these coefficients (Pallant, 2010).

#### 6.1.3.2 Means and standard deviations of the organisational commitment questionnaire (OCQ)

The OCQ is scored by obtaining a mean score across all three subscales. A mean score is obtained by summing up all the individual scores for each subscales and then dividing the total score for each subscale by 3. Each subscale can range from 1 to 7. A 1 is the minimum score if a respondent scores each of the items as a 1; likewise, a score of 23 is possible if all items are scored at 7, which is applicable to the OCQ scale. Table 6.8 provides the descriptive information for the overall scale and subscales of the OCQ. The descriptive information includes the minimum score, maximum score, mean, standard deviation, skewness and kurtosis.

Table 6.8

*Means and Standard Deviations of the OCQ (n = 350)*

	Minimum	Maximum	Mean	SD	Skewness	Kurtosis
OCQ	2.70	6.09	4.28	.59	-.02	.17
Affective commitment	1.75	6.75	4.20	.64	.17	1.60
Continuance commitment	1.22	6.56	4.44	.92	-.16	.03
Normative commitment	1.67	7.00	4.13	1.08	.28	-.14

Table 6.8 shows that the mean scores ranged from 4.13 to 4.44, indicating mid-range scores. The sample of respondents obtained the highest scores on the continuance commitment subscale ( $M = 4.44$ ;  $SD = .92$ ). The lowest scores were obtained on normative commitment ( $M = 4.13$ ;  $SD = 1.08$ ). The standard deviations ranged from .59 and 1.08. The skewness values for the OCQ ranged between -.02 to and .28, thereby falling within the -1 and +1 normality range suggested for these coefficients (Pallant, 2010). The kurtosis values ranged between -.14 and 1.60 thereby falling within -1 and above +1, thus providing evidence that the non-normal distribution range suggested for these coefficients exists (Pallant, 2010).

### 6.1.3.3 Means and standard deviations of the job embeddedness questionnaire (JEQ)

The JEQ is scored by obtaining a mean score across all three subscales. A mean score is obtained by summing up all the individual scores for each subscale and then dividing the total score for each subscale by 3. Each subscale can range from 1 to 6. A 1 is the minimum score if a respondent scores each of the items as a 1; likewise a score of 21 is possible if all items are scored at 6, which is applicable to the JEQ scale. Table 6.9 provides the descriptive information for the overall scale and subscales of the JEQ. The descriptive information includes the minimum score, maximum score, mean, standard deviation, skewness and kurtosis.

Table 6.9

*Means and Standard Deviations of the JEQ (n = 350)*

	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>SD</b>	<b>Skewness</b>	<b>Kurtosis</b>
JEQ	1.00	6.00	4.17	.82	-.07	-.10
Links	1.00	6.00	4.41	.94	-.47	.53
Fit	1.00	6.00	4.33	1.08	-.18	-.81
Sacrifice	1.00	6.00	3.95	.97	-.05	-.37

Table 6.9 shows that the mean scores ranged from 3.95 to 4.41, indicating mid-range to high scores. The sample of respondents obtained the highest scores on the links subscale ( $M = 4.41$ ;  $SD = .94$ ). The lowest scores were obtained on the sacrifice subscale ( $M = 3.95$ ;  $SD = .97$ ). The standard deviations were fairly similar, ranging from .82 to 1.08. The skewness values for the JEQ ranged from -.05 to -.47, thereby falling within the -1 and +1 normality range suggested for these coefficients (Pallant, 2010). The kurtosis values ranged from -.10 to .53, thereby falling within the -1 and 1 spectrum, thus providing evidence that the non-normal distribution range suggested for these coefficients exists (Pallant, 2010).

#### 6.1.3.4 Means and standard deviations of the attitudes towards change questionnaire (ACQ)

The ACQ is scored by obtaining a mean score across all three subscales. A mean score is obtained by summing up all the individual scores for each subscale and then dividing the total score for each subscale by 3.

Each subscale can range from 1 to 5. A 1 is the minimum score if a respondent scores each of the items as a 1; likewise a score of 18 is possible if all items are scored at 5, which is applicable to the ACQ scale. Table 6.10 provides the descriptive information for the overall scale and subscales of the ACQ. The descriptive information includes the minimum score, maximum score, mean, standard deviation, skewness and kurtosis.

Table 6.10

*Means and Standard Deviations of the ACQ (n = 350)*

	Minimum	Maximum	Mean	SD	Skewness	Kurtosis
ACQ	1.50	4.94	3.14	.58	.34	.12
Affective	1.67	5.00	3.15	.43	.39	1.49
Cognitive	1.00	5.00	3.15	.91	.04	-.65
Behavioural	1.50	5.00	3.11	.67	.65	.47

Table 6.10 shows that the mean scores ranged from 3.11 to 3.15, indicating mid-range scores. The sample of respondents obtained the highest scores on the affective subscale ( $M = 3.15$ ;  $SD = .43$ ) and the lowest scores were obtained on the behavioural subscale ( $M = 3.11$ ;  $SD = .67$ ). The skewness values ranged between .04 and .65, thereby falling within the -1 and +1 normality range suggested for these coefficients (Pallant, 2010). The kurtosis values ranged from -.65 to 1.49, thereby falling within the -1 and above +1 normality range suggested for these coefficients (Pallant, 2010).

## 6.2 CORRELATIONAL STATISTICS

In order to investigate the relationship between the variables in this study, the descriptive statistics were transformed into correlational (explanatory) statistics to determine whether the results provided adequate evidence in support of research hypotheses Ha1.

Ha1: There is a statistically positive inter-relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.

### 6.2.1 Relationship between the independent and dependent construct variables

The following section reports the results obtained from the correlational analyses. Table 6.11 summarises the results of the zero-order correlations between the construct variables.

Table 6.11

*Correlations between the Independent (SJS, OCQ and JEQ) and Dependent Construct Variables (ACQ)*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
1 Age																										
2 Gender																										
3 Race	-	-	-	-																						
4 Employment level	-	-	-	-																						
5 SJS overall scale	.08	.09	.06	.02	-																					
6 Job and role ambiguity	.07	.09	.07	.00	<b>.81**</b>	-																				
7 Relationships	.06	.06	.01	.03	<b>.84**</b>	<b>.67**</b>	-																			
8 Job tools and equipment	-.00	.07	.04	.04	<b>.82**</b>	<b>.56**</b>	<b>.68**</b>	-																		
9 Career advancement prospects	-.03	.09	.05	-.05	<b>.78**</b>	<b>.49**</b>	<b>.61**</b>		-																	
10 Job security	<b>.14*</b>	.09	.08	.03	<b>.73**</b>	<b>.52**</b>	<b>.47**</b>			-																
11 Lack of job autonomy	<b>.16**</b>	.06	.04	.00	<b>.83**</b>	<b>.66**</b>	<b>.57**</b>	<b>.63**</b>	<b>.56**</b>	<b>.60**</b>	-															
12 JEQ overall scale	.08	<b>-.19**</b>	.01	-.02	<b>-.45**</b>	<b>-.41**</b>	<b>-.37**</b>	<b>-.29**</b>	<b>-.33**</b>	<b>-.36**</b>	<b>-.39**</b>	-														
13 Links	<b>.11*</b>	<b>-.16**</b>	.06	-.04	.05	-.01	.01	.03	.02	.09	.06	<b>.44**</b>	-													
14 Fit	.07	<b>-.16**</b>	-.00	-.06	<b>-.51**</b>	<b>-.45**</b>	<b>-.44**</b>	<b>-.36**</b>	<b>-.34**</b>	<b>-.38**</b>	<b>-.46**</b>	<b>.88**</b>	<b>.24**</b>	-												
15 Sacrifice	.03	<b>-.14**</b>	-.02	.00	<b>-.41**</b>	<b>-.37**</b>	<b>-.32**</b>	<b>-.25**</b>	<b>-.32**</b>	<b>-.38**</b>	<b>-.36**</b>	<b>.91**</b>	<b>.21**</b>	<b>.69**</b>	-											
16 OCQ	<b>.21**</b>	<b>-.11*</b>	.01	.07	.10	<b>.12*</b>	.08	.05	-.05	<b>.18**</b>	.09	<b>.26**</b>	<b>.21**</b>	<b>.17**</b>	<b>.24**</b>	-										

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
17	Affective commitment	<b>.17**</b>	-0.06	<b>.19**</b>	-0.04	<b>.18**</b>	<b>.16**</b>	<b>.12*</b>	.10	.10	<b>.25**</b>	<b>.15**</b>	-0.04	<b>.13*</b>	-0.07	-0.07	<b>.58**</b>	-								
18	Continuance commitment	<b>.19**</b>	-0.05	.04	.09	<b>.28**</b>	<b>.30**</b>	<b>.24**</b>	<b>.15**</b>	.08	<b>.32**</b>	<b>.26**</b>	-0.02	<b>.14**</b>	-0.09	-0.01	<b>.81**</b>	<b>.30**</b>	-							
19	Normative commitment	.08	<b>-.12*</b>	<b>-.13*</b>	.05	<b>-.29**</b>	<b>-.25**</b>	<b>-.22**</b>	<b>-.17**</b>	<b>-.27**</b>	<b>-.24**</b>	<b>-.26**</b>	<b>.58**</b>	<b>.14**</b>	<b>.54**</b>	<b>.56**</b>	<b>.59**</b>	.03	<b>.17**</b>	-						
20	ACQ overall scale	.07	-0.02	-0.03	<b>.14**</b>	<b>.51**</b>	<b>.43**</b>	<b>.39**</b>	<b>.34**</b>	<b>.32**</b>	<b>.48**</b>	<b>.48**</b>	<b>-.46**</b>	.04	<b>-.46**</b>	<b>-.47**</b>	.05	.10	<b>.23**</b>	<b>-.27**</b>	-					
21	Affective	-0.05	.01	-0.00	-0.02	<b>.15**</b>	.08	.09	<b>.12*</b>	<b>.13*</b>	<b>.15**</b>	<b>.17**</b>	<b>-.21**</b>	-0.05	<b>-.13*</b>	<b>-.26**</b>	.00	-0.00	.06	-0.07	<b>.65**</b>	-				
22	Cognitive	.08	-0.01	.01	<b>.12*</b>	<b>.58**</b>	<b>.52**</b>	<b>.45**</b>	<b>.40**</b>	<b>.36**</b>	<b>.54**</b>	<b>.54**</b>	<b>-.51**</b>	.05	<b>-.55**</b>	<b>-.49**</b>	.06	<b>.13*</b>	<b>.27**</b>	<b>-.32**</b>	<b>.93**</b>	<b>.42**</b>	-			
23	Behavioural	<b>.12*</b>	-0.06	-0.08	<b>.17**</b>	<b>.42**</b>	<b>.34**</b>	<b>.34**</b>	<b>.26**</b>	<b>.26**</b>	<b>.40**</b>	<b>.40**</b>	<b>-.35**</b>	.06	<b>-.36**</b>	<b>-.37**</b>	.04	.08	<b>.19**</b>	<b>-.21**</b>	<b>.91**</b>	<b>.47**</b>	<b>.77**</b>			

Note: N = 350. Significant correlations are in boldface. \*\*\* $p \leq .001$  – statistically significant. \*\* $p \leq .01$  – statistically significant. \* $p \leq .05$  – statistically significant. Significant statistical correlations are shown in boldface.

### 6.2.1.1 Correlations between sources of job stress (SJS), organisational commitment (OCQ), job embeddedness (JEQ) and attitudes towards change (ACQ)

#### Correlations between the variables of each scale

- In terms of the bi-variate correlations, Table 6.11 shows that the correlations between the six SJS variables ranged between  $r \geq .45 \leq .68$  ( $p \leq .001$ ; moderate to large practical effect), suggesting that the values were below the threshold value for multi-collinearity concerns ( $r \leq .85$ ). All the variables correlated positively and strongly ( $r \geq .73 \leq .84$ ;  $p \leq .001$ ; large practical effect) with the overall SJS construct, thus confirming the overall construct validity of the SJS.
- The bi-variate correlations between the three OCQ variables (Table 6.11) ranged between  $r \geq .17 \leq .30$  ( $p \leq .01$ ; small to moderate practical effect), suggesting that the values were below the threshold value for multi-collinearity concerns ( $r \leq .85$ ). However, no significant correlation was observed between the normative commitment variable and affective commitment variable. All the variables correlated positively and strongly ( $r \geq .58 \leq .81$ ;  $p \leq .01$ ; large practical effect) with the overall OCQ construct, confirming the overall construct validity of the OCQ.
- The bi-variate correlations between the three JEQ variables (Table 6.11) ranged between  $r \geq .21 \leq .69$  ( $p \leq .01$ ; small to large practical effect), suggesting that the values were below the threshold value for multi-collinearity concerns ( $r \leq .85$ ). All the variables correlated positively and strongly ( $r \geq .44 \leq .91$ ;  $p \leq .01$ ; moderate to large practical effect) with the overall JEQ construct, confirming the overall construct validity of the JEQ.
- The bi-variate correlations between the three ACQ variables (Table 6.11) ranged between  $r \geq .42 \leq .77$  ( $p \leq .001$ ; moderate to large practical effect), suggesting that the values were below the threshold value for multi-collinearity concerns ( $r \leq .85$ ). All the variables correlated positively and strongly ( $r \geq .65 \leq .93$ ;  $p \leq .01$ ; large practical effect) with the overall ACQ construct, confirming the overall construct validity of the ACQ.

#### Correlations between sources of job stress (SJS) and organisational commitment (OCQ)

- Overall, Table 6.11 shows that the SJS variables correlated significantly and positively with the overall OCQ, affective and continuance commitment variables ( $r \geq .12 \leq .32$ ; small to moderate practical effect;  $p \leq .05$ ) and negatively with the normative commitment variables ( $r \geq -.17 \leq -.29$ ; small practical effect;  $p \leq .01$ ).

- The results (Table 6.11) indicate that total source of job stress correlated significantly and positively with affective commitment and continuance commitment ( $r \geq .18 \leq .28$ ; small effect;  $p \leq .05$ ) and negatively with normative commitment ( $r \leq -.29$ ; small effect;  $p \leq .05$ ).
- A significant positive correlation was evident between job and role ambiguity and total organisational commitment, affective commitment and continuance commitment ( $r \geq .12 \leq .30$ ; small to moderate effect;  $p \leq .05$ ), while a significant negative correlation was evident between job and role ambiguity and normative commitment ( $r \leq -.25$ ; small effect;  $p \leq .05$ ).
- A significant positive correlation was evident between relationships and affective commitment, continuance commitment ( $r \geq .12 \leq .24$ ; small effect;  $p \leq .05$ ), while a significant negative correlation was evident between relationships and normative commitment ( $r \leq -.22$ ; small effect;  $p \leq .05$ ). No significant correlation was evident between relationships and total organisational commitment.
- A significant positive correlation was evident between job tools and equipment and continuance commitment ( $r \leq .15$ ; small effect;  $p \leq .05$ ) and a significant negative correlation with normative commitment ( $r \leq -.17$ ; small effect;  $p \leq .05$ ). No significant correlations could be found between job tools and equipment with total organisational commitment and affective commitment.
- A significant negative correlation was evident also between career advancement prospects and normative commitment ( $r \leq -.27$ ; small effect;  $p \leq .05$ ). No significant correlations could be found between total organisational commitment, affective commitment and continuance commitment.
- A significant positive correlation was evident between job security and total organisational commitment, affective commitment and continuance commitment ( $r \geq .18 \leq .32$ ; small to moderate effect;  $p \leq .05$ ), while there was a significant negative correlation with normative commitment ( $r \leq -.24$ ; small effect;  $p \leq .05$ ).
- A significant positive correlation was observed between lack of job autonomy and affective commitment and continuance commitment ( $r \geq .15 \leq .26$ ; small effect;  $p \leq .05$ ) and a significant negative correlation with normative commitment ( $r \leq -.26$ ; small effect;  $p \leq .05$ ).

### Correlations between sources of job stress (SJS) and job embeddedness (JEQ)

- The results (Table 6.11) indicated negative correlations between total sources of job stress and total job embeddedness, fit and sacrifice ( $r \geq -.41 \leq -.51$ ; moderate to large effect;  $p \leq .05$ ). No correlation was evident between total source of job stress and the links job embeddedness variable.
- Significant negative correlations were evident between job role and ambiguity and total job embeddedness, fit and sacrifice ( $r \geq -.37 \leq -.45$ ; moderate effect;  $p \leq .05$ ).
- Significant negative correlations were evident between relationships and total job embeddedness, fit and sacrifice ( $r \geq -.32 \leq -.44$ ; moderate effect;  $p \leq .05$ ).
- The results indicated negative correlations between job tools and equipment and total job embeddedness, fit and sacrifice ( $r \geq -.25 \leq -.36$ ; small to moderate effect;  $p \leq .05$ ).
- The results also indicated negative correlations between career advancement prospects and total job embeddedness, fit and sacrifice ( $r \geq -.32 \leq -.34$ ; moderate effect;  $p \leq .05$ ).
- The results indicated negative correlations between job security and total job embeddedness, fit and sacrifice ( $r \geq -.36 \leq -.38$ ; small to moderate effect;  $p \leq .05$ ). No significant correlation could be found between job security and links.
- The results indicated significant negative correlations between lack of job autonomy and total job embeddedness, fit and sacrifice ( $r \geq -.36 \leq -.46$ ; moderate effect;  $p \leq .05$ ). No significant correlations could be found between lack of job autonomy and links.

### Correlations between sources of job stress (SJS) and attitudes towards change (ACQ)

- Significant positive correlations were evident between total sources of job stress and total attitudes towards change, affective, cognitive and behavioural attitudes towards change ( $r \geq .15 \leq .58$ ; small to large effect;  $p \leq .05$ ).
- Significant positive correlations were evident between job and role ambiguity and total attitudes towards change, cognitive and behavioural attitudes towards change ( $r \geq .34 \leq .52$ ; moderate to large effect;  $p \leq .05$ ).
- Significant positive correlations were observed between relationships and total attitudes towards change, and cognitive and behavioural attitudes towards change ( $r \geq .34 \leq .45$ ; moderate effect;  $p \leq .05$ ).
- Significant positive correlations were evident between job tools and equipment and total attitudes towards change, and affective, cognitive and behavioural attitudes towards change ( $r \geq .12 \leq .40$ ; small to moderate effect;  $p \leq .05$ ).

- Significant positive correlations were evident between career advancement prospects and total attitudes towards change, and affective, cognitive and behavioural attitudes towards change ( $r \geq .13 \leq .36$ ; small to moderate effect;  $p \leq .05$ ).
- Significant positive correlations were also evident between job security and total attitudes towards change, and affective, cognitive and behavioural attitudes towards change ( $r \geq .15 \leq .54$ ; small to large effect;  $p \leq .05$ ).
- Significant positive correlations were evident between lack of job autonomy and total attitudes towards change, and affective, cognitive and behavioural attitudes towards change ( $r \geq .17 \leq .54$ ; small to large effect;  $p \leq .05$ ).

#### 6.2.1.2 *Correlations between the psychological attachment variables: job embeddedness (JEQ) and organisational commitment (OCQ)*

- Table 6.11 shows that the JEQ and OCQ variables correlated significantly and positively ( $r \geq .14 \leq .58$ ; small to large practical effect;  $p \leq .05$ ).
- Significant positive correlations were observed between total job embeddedness and total organisational commitment and normative commitment ( $r \geq .26 \leq .58$ ; small to large effect;  $p \leq .05$ ). No significant correlations could be found between total job embeddedness and affective and continuance commitment.
- Positive correlations were evident between links and total organisational commitment, affective commitment, continuance commitment and normative commitment ( $r \geq .13 \leq .21$ ; small effect;  $p \leq .05$ ).
- Positive correlations were evident between fit, total organisational commitment and normative commitment ( $r \geq .17 \leq .54$ ; small to large effect;  $p \leq .05$ ).
- Positive correlations were evident between sacrifice, total organisational commitment and normative commitment ( $r \geq .24 \leq .56$ ; small to large effect;  $p \leq .05$ ).

#### 6.2.1.3 *Correlations between psychological attachment (job embeddedness and organisational commitment) and attitudes towards change*

##### Correlations between job embeddedness (JEQ) and attitudes towards change (ACQ)

- Significant negative correlations were evident between total job embeddedness and total attitudes towards change, affective, cognitive and behavioural attitudes towards change ( $r \geq -.21 \leq -.51$ ; small to large effect;  $p \leq .05$ ).

- Significant negative correlations were evident between fit and total attitudes towards change affective, cognitive and behavioural attitudes towards change ( $r \geq -.13 \leq -.55$ ; small to large effect;  $p \leq .05$ ).
- Significant negative correlations were evident between sacrifice and total attitudes towards change affective, cognitive and behavioural attitudes towards change ( $r \geq -.26 \leq -.49$ ; small to moderate effect;  $p \leq .05$ ).

#### Correlations between organisational commitment (OCQ) and attitudes towards change (ACQ)

- The results indicated that affective commitment correlated significantly and positively with cognitive attitudes towards change ( $r \leq .13$ ; small effect;  $p \leq .05$ ). No correlations were found between affective commitment and total attitudes towards change, affective and behavioural attitude towards change.
- Significant positive correlations were evident between continuance commitment and total attitudes towards change, cognitive and behavioural attitudes towards change ( $r \geq .19 \leq .27$ ; small effect;  $p \leq .05$ ).
- Significant negative correlations were observed between normative commitment and total attitudes towards change, and cognitive and behavioural attitudes towards change ( $r \geq -.21 \leq -.32$ ; small effect;  $p \leq .05$ ).

#### *6.2.1.4 Correlations between the control variables (age, gender, race and employment level) and the sources of job stress, psychological attachment (job embeddedness and organisational commitment) and attitudes towards change variables*

- Table 6.11 shows that the control variables correlated significantly ( $r \geq .12 \leq .93$ ; small to large practical effect;  $p \leq .05$ ) with positive correlations ( $r \geq -.11 \leq -.55$ ; small to large practical effect;  $p \leq .05$ ) for the SJS, OCQ, JEQ and ACQ variables.
- The results indicate that age correlated positively and significantly with job security and lack of job autonomy ( $r \geq .14 \leq .16$ ; small effect;  $p \leq .05$ ).
- Significant positive correlations were evident between age and affective commitment and continuance commitment ( $r \geq .17 \leq .19$ ; small effect;  $p \leq .05$ ).
- A significant positive correlation was evident between age and links ( $r \leq .11$ ; small effect;  $p \leq .05$ ).
- A significant negative correlation was evident between age and behavioural attitudes ( $r \leq -.12$ ; small effect;  $p \leq .05$ ).

- The results indicate that gender correlated significantly and negatively with total job embeddedness, links, fit and sacrifice ( $r \geq -.14 \leq -.19$ ; small effect;  $p \leq .05$ ).
- Significant negative correlations were also observed between gender and total organisational commitment and normative commitment ( $r \geq -.11 \leq -.12$ ; small effect;  $p \leq .05$ ).
- The results indicate that race correlated significantly and positively with affective commitment ( $r \leq .19$ ; small effect;  $p \leq .05$ ). A significant negative correlation was evident between race and normative commitment ( $r \leq -.12$ ; small effect;  $p \leq .05$ ).
- The results indicate that employment level correlated significantly and positively with the total attitude towards change, and cognitive and behavioural attitudes towards change ( $r \geq .12 \leq .17$ ; small effect;  $p \leq .05$ ).

Overall, the results showed that the significant correlations between the biographical variables and the SJS, OCQ, JEQ, and ACQ variables were small in practical effect.

The results obtained for the correlation analyses yielded supportive evidence for research hypothesis Ha1: There is a statistically positive inter-relationship between experiences of sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.

### **6.3 INFERENTIAL (MULTIVARIATE) STATISTICS**

Inferential statistics are primarily used with samples to deduce something about the population (Hair et al., 2010). The first stage of inferential statistics involved assessing the multivariate relationships between the SJS, OCQ, JEQ and ACQ variables in order to establish an overall profile of the relationship between the variables. Canonical correlations were therefore conducted to test Ha2.

Ha2: There is a statistically significant overall relationship between experiences of sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.

#### **6.3.1 Canonical correlations**

Canonical correlation analyses were conducted to assess the overall relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) as the set of independent latent variables and attitudes towards change as

the set of dependent latent variables. Canonical correlation analyses was considered relevant and valuable because canonical analysis limits the chances of committing type I errors and the statistical analyses entail exploring relationships between two composite sets of multiple variables (Hair et al., 2010).

Wilks' lambda chi-square test was used to test for the significance of the overall canonical correlation between the independent latent variables, namely sources of work stress, psychological attachment (organisational commitment and job embeddedness) and the dependent latent variables (attitudes towards change) of a canonical function. In an effort to counteract the probability of a type I error, the significance value to interpret the results was set at the 95% confidence interval level ( $Fp \leq .05$ ). Moreover, the Wilks' Lambda  $r^2$  type effect size (yielded by  $1-\lambda$ ) was utilised to determine the practical significance of the findings (Cohen, 1992). The cut-off criterion for factorial loadings ( $\geq .30$ ) was utilised to assess the relative importance of the canonical structure correlations (Hair et al., 2010). This guideline was also used to assess the loadings in deriving the canonical variate constructs (Hair et al., 2010).

According to Hair et al. (2010), the redundancy index is also important to be considered when determining the magnitude of the overall relationships (correlational) between the two variates of a canonical function. Hair et al. (2010) posit that the redundancy index is also useful to determine practical significance of the predictive ability of the canonical relationship. Cohen (1992) indicated that the squared canonical correlation ( $Rc^2$ ) values must be considered in the interpretation of the practical significance of the results. The interpretations of the squared canonical correlation ( $Rc^2$ ) values were based on the following effect sizes: a large practical effect:  $Rc^2 \geq .26$ ; medium practical effect:  $Rc^2 \geq .13 \leq .25$ ; small practical effect:  $Rc^2 \leq .12$ .

Table 6.12 shows that the model from the canonical correlation analysis yielded three canonical functions or dimensions of which the canonical correlation of the first function was statistically significant:  $Rc = .72$  ( $Rc^2 = .52$ ; large practical effect;  $F(p) = 8.88$  (.0001). It was decided that only the results of function one would be considered in the analysis of the results because of the large practical effect yielded by the function.

The canonical function clarifies the relationship between the two canonical variates (the variate for the composite set of independent variables and the variate for the composite set of dependent variables). The multivariate criteria (all four) and the  $F$  approximations for this model are statistically significant.

Table 6.13 shows that the full model  $r^2$  type's effect size (yielded by  $1-\lambda$ : 1-.44) was .56 (large practical effect), indicating that the full model explained a substantial proportion approximately 56% of the variance shared between the two variable sets: The independent canonical construct variate comprising sources of job stress and psychological attachment (organisational commitment and job embeddedness) in relation to the dependent canonical construct variate attitudes towards change.

Table 6.12 and Table 6.13 show that the canonical variables of the first function accounted for 52% (overall  $Rc^2 = .52$ ; large practical effect) of the data variability. Only the results of the first canonical were therefore considered for testing research hypothesis Ha2. The second function explained only an additional of 7% of the variance shared between the two variable sets and the data variability and the third function only 2%.

Table 6.12

*Canonical Correlation Analysis: Overall Model Fit Statistics Relating Sources of Work Stress, Psychological Attachment (Job Embeddedness and Organisational Commitment) and Attitudes Towards Change*

<b>Measures of overall model fit for canonical correlation analysis</b>					
<b>Canonical function</b>	<b>Overall canonical correlation (Rc)</b>	<b>Overall squared canonical correlation (Rc<sup>2</sup>)</b>	<b>Eigenvalue</b>	<b>F statistics</b>	<b>Probability (p)</b>
1	.72	.52	1.0686	8.88	<.0001***
2	.27	.07	.0774	1.56	.0488
3	.16	.02	.0256	0.86	.5693
<b>Multivariate tests of significance</b>					
<b>Statistics</b>	<b>Value</b>	<b>Approximate F statistic</b>	<b>Probability(p)</b>		
<b>Wilks' lambda</b>	.44	8.88	<.0001***		
<b>Pillai's trace</b>	.61	7.22	<.0001***		
<b>Hotelling-Lawley trace</b>	1.17	10.86	<.0001***		
<b>Roy's greatest root</b>	1.07	30.01	<.0001***		

Note: N = 350 \*\*\* $p \leq .001$ \*\* $p \leq .01$ \* $p \leq .05$

$Rc^2 \leq .12$  (small practical effect size);  $Rc^2 \geq .13 \leq .25$  (moderate practical effect size);  $Rc^2 \geq .26$  (large practical effect size)

The redundancy index results summarised in Table 6.13 show that the independent canonical construct variables (sources of job stress, organisational commitment and job embeddedness) were able to predict 26% (large effect) of the proportion of overall variance in the attitudes towards change variables.

It should be noted that only the singular canonical structure correlations (loadings) and the squared canonical structure correlations (loadings) were deliberated upon in the interpretation of the practical significance and importance of the derivation of the two canonical variate constructs: Experiences of sources of work stress, psychological attachment (organisational commitment and job embeddedness) as the independent canonical variate construct and attitudes towards change as the dependent canonical variate construct. This was attributed to the variability of the canonical weights and multi-collinearity apprehensions (Hair et al., 2010).

According to Hair et al. (2010), the canonical correlations or loadings assess the magnitude of the canonical relationship (between a canonical variate and its singular variables in a set of variables, i.e. within a set of variable to variate correlations). Variables that correlate  $\geq .30$  (high) with their canonical function variates can be considered as having more in common with them (Hair et al., 2010).

Table 6.13 shows that the independent construct (SJS, JES, OCQ) variables contributed significantly in explaining the variance in the three original attitudes toward change construct (affective, cognitive and behavioural) variables, namely: affective attitude ( $R_c = .18$ ;  $R_c^2 = 3\%$ ); cognitive attitude ( $R_c = .71$ ;  $R_c^2 = 50\%$ ); and behavioural attitude ( $R_c = .50$ ;  $R_c^2 = 25\%$ ). Fit ( $R_c = -.56$ ), high need for job security ( $R_c = .55$ ), lack of job autonomy ( $R_c = .55$ ), and job/role ambiguity ( $R_c = .54$ ) exhibited the highest correlation with the attitudes towards change canonical variate. These four variables were also the strongest predictors of the independent canonical construct variate. The cognitive ( $R_c = .71$ ) and behavioural ( $R_c = .50$ ) attitudes towards change variables exhibited the highest correlation with the independent canonical construct variate and were also the strongest predictors of the attitudes towards change (dependent) canonical construct variate (cognitive:  $R_c = .98$ ; behavioural:  $R_c = .69$ ).

Table 6.13

Results of the Standardised Canonical Correlation Analysis for the First Canonical Function

Variate/variables	Canonical coefficient	Structure coefficient (Rc)	Canonical cross-loadings (Rc)	Squared canonical loadings (Rc <sup>2</sup> )
Set of independent variables				
<b>Sources of Job Stress (SJS)</b>				
Job and role ambiguity	.22	.75	.54	.29
Relationships	.05	.64	.46	.21
Job tools and equipment	.01	.56	.40	.16
Career advancement prospects	-.11	.49	.35	.12
Job security	.30	.76	.55	.30
Lack of job autonomy	.17	.76	.55	.30
<b>Job Embeddedness (JEQ)</b>				
Links	.17	.09	.06	.00
Fit	-.40	-.78	-.56	.31
Sacrifice	-.15	-.66	-.47	.22
<b>Organisational Commitment (OCQ)</b>				
Affective commitment	-.03	.20	.14	.02
Continuance commitment	.13	.38	.27	.08
Normative commitment	-.04	-.46	-.33	.11
Percentage of overall variance of variables explained by their own canonical variables: .34				
Set of dependent variables				
<b>Attitudes towards change (ACQ)</b>				
Affective	-.18	.24	.18	.03
Cognitive	1.13	.98	.71	.50
Behavioural	-.09	.69	.50	.25

Percentage of overall variance of variables explained by their own canonical variables: .50

Overall model fit measure (function1)

Overall  $Rc^2 = .52$  (percentage of overall variance in the attitudes towards change (dependent) canonical construct variables accounted for by the independent canonical construct variables)

$F(p) = 8.88$  ( $p < .0001$ );  $df = 36$ ; 990.52

Wilks' Lambda ( $\lambda$ ) = .44

$f^2$  type effect size:  $1 - \lambda = .56$  (large effect)

Overall proportion: .52

Redundancy index (proportion of overall variance of the attitudes toward change construct variables explained or predicted by the independent canonical construct variables) proportion = .26

Note:  $N = 350$ . Structure coefficients greater than .30 are in boldface

$Rc^2 \leq .12$  (small practical effect size);  $Rc^2 \geq .13 \leq .25$  (moderate practical effect size);  $Rc^2 \geq .26$  (large practical effect size)

The Helio plot, in Figure 6.1 shows the results of the overall relationship between the composite set of independent canonical variables (experiences of sources of work stress, organisational commitment and job embeddedness) and the composite set of dependent (attitudes towards change) canonical variables.

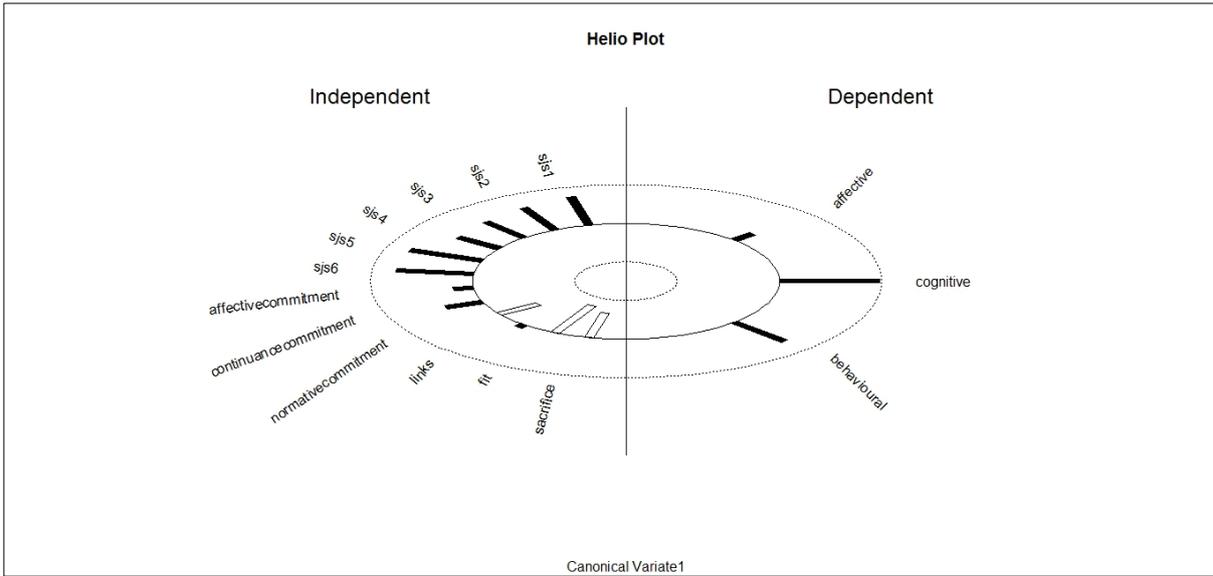


Figure 6.1. Overall relationships between the experiences of sources of work stress, psychological attachment (organisational commitment and job embeddedness) and the attitudes towards change canonical construct variates. SJS 1: job role and ambiguity; SJS 2: relationships; SJS 3: job tools and equipment; SJS 4: career advancement prospects; SJS 5: job security; SJS 6: lack of job autonomy)

The original variables of the set of independent canonical construct variables (SJS, OCQ and JEQ) and the ACQ (dependent variables) are arrayed around the perimeter. The left semicircle lists the independent canonical construct variables, while the right semicircle lists the dependent (attitudes toward change) canonical construct variables (ACQ). The relative size of the structure correlations is indicated by the relative length of the bars extending either towards the circumference (positive correlations) or towards the centre (negative correlations). As also shown in Figure 6.1, the bars reaching outwards (boldface) represent positive correlations. Negative canonical correlations were observed in terms of the OCQ normative commitment, and JEQ fit and sacrifice variables. The key variables (job role and ambiguity, job security, lack of job autonomy, low job fit) significantly contributed to explaining the ACQ variables (cognitive and behavioural attitudes). The results obtained for the canonical correlation analyses yielded supportive evidence for research hypothesis Ha2: There is a statistically significant overall relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.

### 6.3.2 Mediation modelling

Mediation modelling represented the second stage of the inferential statistical analyses. This stage tested research hypothesis Ha3: Psychological attachment (organisational commitment and job embeddedness) significantly mediates the relationship between experiences of sources of work stress and attitudes towards change. This research hypothesis assumed that higher levels of experiences of sources of work stress relate to more positive attitudes towards change through lower levels of psychological attachment (organisational commitment and job embeddedness). Mediation modelling, using structural equation modelling (SEM) methods with MPlus 7.2 (Muthén & Muthén, 2014) were performed. The first phase of the mediation modelling procedure involved confirmatory factor analysis (CFA) in order to test competing measurement models before testing the underlying structural mediation model. In this study, no item parcelling was implemented. The individually observed indicators (items) were used to perform CFA for each of the latent corresponding variables in a measurement model with maximum likelihood methodology. Regression paths were added to the measurement model to constitute a structural model. The robust WLSMV (weighted least-squares with means and variance adjustment) estimator was used to test the structural models and to help improve model fit. This estimator does not assume normally distributed variables and complied better with the assumptions of the scales (ordinal level of measurement) used in the study. The input type of the estimation was the covariance matrix.

#### 6.3.2.1 Confirmatory factor analysis

Table 6.14 provides a summary of the fit indices resulting from the CFA analyses.

The AIC (Akaike information criterion) and BIC (Bayes information criterion) fit indices were used to compare the alternative models with the initial model, with the lowest value indicating the best fit. AIC is a comparative measure of fit that is meaningful when different models are estimated. The lowest AIC is the best-fitting model. The BIC is a measure that provides an indication of model parsimony (Kline, 2010). Other fit indices include the following absolute fit indices, namely the chi-square statistic (the test of absolute fit of the model), the weighted root mean square residual (WRMR) and the root means square error of approximation (RMSEA). The RMSEA provides an indication of the overall amount of error in the hypothesised model-data fit relative to the number of estimated parameters in the model. The recommended acceptable levels of the RMSEA should be .06 - .05 or less, and should not exceed .08 for acceptable fit (Hu & Bentler, 1999).

The incremental fit indices included the Tucker-Lewis index (TLI) as a relative measure of covariation explained by the hypothesised model, and the comparative fit index (CFI) which takes sample size into account and compares the hypothesised and independent models (Hair et al., 2010). Critical values (TLI and CFI) for good model fit have been recommended to be above the .90 level (Wang & Wang, 2012).

Before running the competing measurement models, a single factor CFA analysis was done to check for common method variance. The CFA measurement model consisted of one first-order latent variable (on which all the variables loaded as a single factor). As shown in Table 6.14, the single common-factor model generated poor fit, which suggested that common method bias did not pose a threat to the findings, as indicated by Podsakoff et al.'s (2003) guidelines. Four alternative CFA measurement models were computed. Table 6.14 reports the fit indices of the various models. The first model consisted of four first-order latent variables, namely experiences of sources of work stress as a single factor, organisational commitment (on which three observed variables loaded, namely affective commitment, continuance commitment and normative commitment), job embeddedness (on which three observed variables loaded, namely fit, links and sacrifice), and attitudes toward change as a single factor.

The second model consisted of four first-order latent variables, namely experiences of sources of work stress as a single factor, organisational commitment as a single factor, job embeddedness (on which three observed variables loaded, namely fit, links and sacrifice), and attitudes towards change as a single factor.

The third model consisted of four first-order latent variables, namely experiences of sources of work stress as a single factor, organisational commitment (on which three observed variables loaded, namely affective commitment, continuance commitment and normative commitment), job embeddedness as a single factor, and attitudes towards change as a single factor.

The fourth model consisted of three first-order latent variables, namely experiences of sources of work stress as a single factor, psychological attachment (on which two observed variables loaded, namely organisational commitment and job embeddedness) and attitudes towards change as a single factor.

Table 6.14 shows that model 1 obtained the best comparative fit indices (AIC: 57803.54 and BIC: 59300.42) and showed a good fit with a chi-square value of 4661.73 (df = 1682); CFI = .91; TLI = .90; RMSEA = .07 and WRMR = 1.86. Further analysis (testing the structural mediation model) was therefore based on this measurement model.

Table 6.14

*Fit Statistics of Competing Measurement Models and Final Structural Model*

<b>Model</b>	<b>Chi-square</b>	<b>df</b>	<b>CFI</b>	<b>TLI</b>	<b>RMSEA</b>	<b>WRMR</b>	<b>AIC</b>	<b>BIC</b>
<b><i>Confirmatory factor analysis</i></b>								
1 Common factor model	8282.04	1710	.80	.79	.105	2.97	61190.35	62579.20
Model 1	4661.73	1682	.91	.90	.071	1.86	57803.54	59300.42
Model 2	5211.80	1695	.89	.89	.077	2.02	58223.98	58481.08
Model 3	5144.51	1695	.89	.89	.076	2.02	58130.20	58387.29
Model 4	5948.15	1707	.87	.87	.084	2.26	58997.08	60397.51
<b><i>Structural model</i></b>								
Partial mediation	3618.93	1511	.93	.93	.063	1.58	54309.97	55729.69

*Note:* df: degrees of freedom; CFI: comparative fit index; TLI: Tucker-Lewis index; RMSEA: root mean square error of approximation; WRMR: weighted root mean residual; AIC: Akaike information criterion; BIC: Bayesian information criterion. Chi-square/RMSEA significant at p = .00.

### 6.3.2.2 Structural model (mediation modelling)

The structural model was tested by using latent variable modelling as implemented by MPlus version 7.2 (Muthén & Muthén, 2014). The structural model was a modification of the best fit measurement model and consisted of the following latent variables: experiences of sources of work stress as a single first-order factor, affective commitment, continuance commitment and normative commitment as first-order factors, job embeddedness as a second-order factor on to which links, fit and sacrifice loaded, and attitudes towards change as a single first-order factor. The modification of the final structural also involved removing indicators, namely items 18 (work stress) and items 10 and 17 (continuance commitment) in order to improve model fit. As indicated in Table 6.14, the modification of the model showed that this model obtained the best comparative fit indices (AIC: 54309.97 and BIC: 55729.69) and

showed a good fit with a chi-square value of 3618.93 (df = 1511); CFI = .93; TLI = .93; RMSEA = .063 and WRMR = 1.58.

Table 6.15 summarises the standardised regression coefficients and composite reliabilities (Raykov's rho) obtained for the variables of the mediation model.

Table 6.15

*Standardised Regression Coefficients and Composite Reliabilities of the Final Structural Model Variables*

<b>Variable</b>	<b>Raykov's rho</b>	<b>Estimate</b>	<b>SE</b>	<b>Est/SE</b>
<b>Experiences of sources of work stress</b>	.89			
Affective commitment	.87	-.61***	.03	-17.67
Continuance commitment	.73	.27***	.05	5.24
Normative commitment	.88	-.45***	.05	-9.92
Job embeddedness	.93	-.59***	.04	-15.43
<b>Attitudes toward change</b>	.94			
Affective commitment		-.63***	.03	-22.58
Continuance commitment		.24***	.05	4.79
Normative commitment		-.49***	.04	-13.35
Job embeddedness		-.64***	.03	-22.01
<b>Attitudes toward change</b>				
Experiences of sources of work stress		.64***	.03	20.01

*Note:* N = 350. \*\*\* $p \leq .001$ ; \*\* $p \leq .01$ ; \* $p \leq .001$ . SE: standard error. Est/SE: estimate divided by standardised error

### 6.3.2.3 Testing the indirect effects of the psychological attachment variables

Research hypothesis Ha3 assumes that the psychological attachment variables (organisational commitment and job embeddedness) significantly mediate the relationship between experiences of sources of work stress and attitudes towards change. Upon investigation of the correlational relationships between the variables, the indirect (mediating) effects were tested.

Mediation modelling comprised testing the multiple indirect effects of affective commitment, continuance commitment, normative commitment and job embeddedness with the bootstrapping approach in Mplus, as described by Preacher and Hayes (2008), using 10

000 bootstrapping samples. Bootstrapping was used to construct two-sided bias-corrected (BC) 95% percentile confidence intervals (CIs) to evaluate the indirect effects.

Table 6.16 shows the indirect effects of experiences of sources of work stress on attitudes towards change via the psychological attachment variables (the three organisational commitment variables and total job embeddedness).

Table 6.16

*Standardised Indirect Effects of Work Stress on Attitudes towards Change through the Psychological Attachment Variables (Affective Commitment, Continuance Commitment, Normative Commitment and Job Embeddedness)*

Mediator	Point estimate	SE	Bootstrapping BC	
			95% CI	
			Lower	Upper
Sum of indirect effects	.41***	.07	.28	.59
Affective commitment	.16*	.08	-.03	.40
Continuance commitment	.04*	.02	-.002	.09
Normative commitment	-.02	.04	-.13	.10
Job embeddedness	.21**	.07	.02	.39

Note: N = 350; SE: standard error; \*\* $p < .01$ . 95% BC CI: 95% percentile bias corrected confidence interval. \*\*\*  $p \leq .001$ ; \*\*  $p \leq .01$ ; \*  $p \leq .05$

Table 6.15 shows that job stress had a significant direct positive effect on attitudes towards change ( $\beta = .64$ ;  $p = .00$ ), and significant negative effects on the psychological attachment variables (affective commitment, normative commitment and job embeddedness) which, in turn, had significant negative direct effects on attitudes towards change. Job stress had a direct positive effect on continuance commitment, which, in turn, had a positive direct effect on attitudes towards change.

In terms of the indirect effects, Table 6.16 shows that normative commitment did not have a significant mediating effect and that although the indirect effects of affective and continuance commitment were significant, the more reliable bootstrapping 95% confidence intervals (CI) included zero (-.03 lower limit CI for affective commitment and -.002 lower limit CI for continuance commitment), indicating also non-significant indirect effects of these two commitment variables. Table 6.16 further shows that job embeddedness had a significant indirect effect as indicated by the significant point estimate ( $\beta = .21$ ;  $p \leq .01$ ) and the 95% percentile bootstrapping CIs (.02 lower limit CI; .39 upper limit CI) not including zero. The sum of the indirect effect is .41 (moderate practical effect)

Figure 6.2 depicts the mediation modelling results.

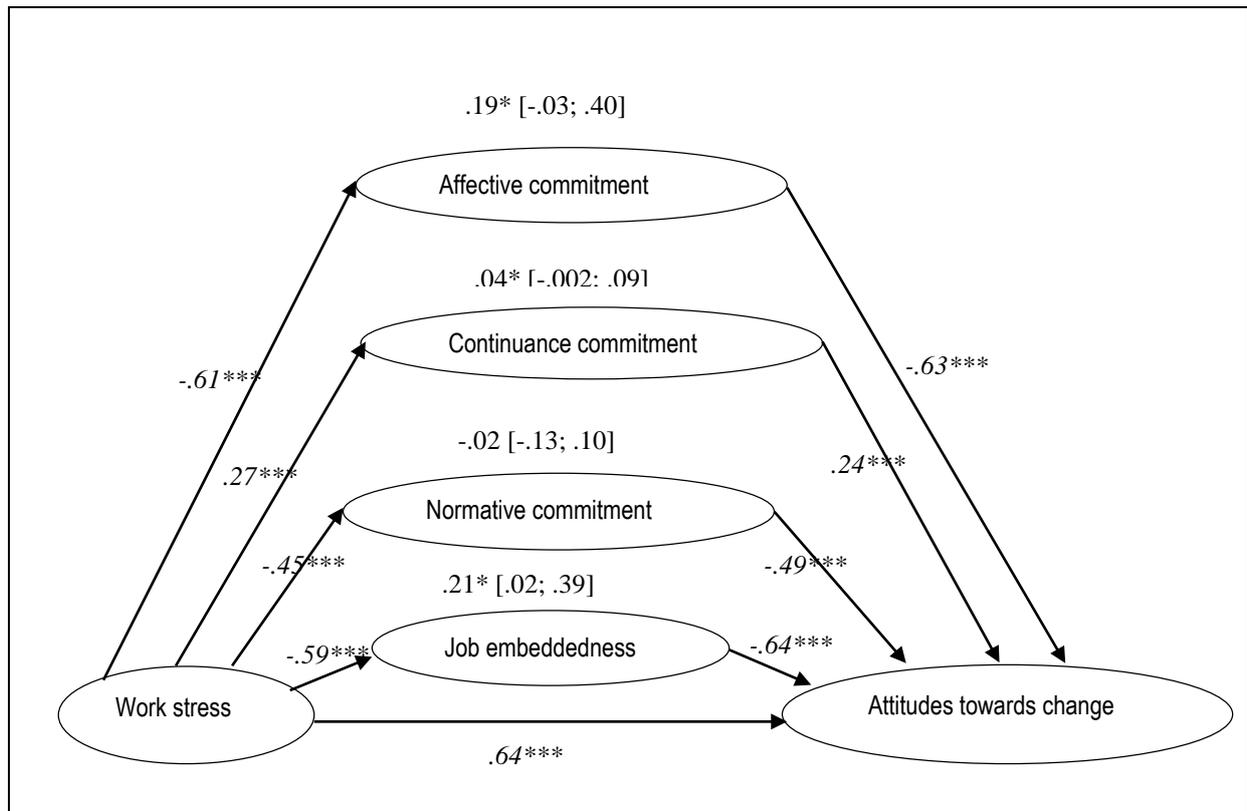


Figure 6.2. Mediating and direct effects of the psychological attachment variables  
 $^{***} p \leq .00$ .  $^* p \leq .05$ . Bootstrapping 95% percentile lower and upper limits confidence intervals are shown in brackets. Values in italics are path coefficients (direct effects) identified in the mediation analysis.

The results obtained for the mediation analyses yielded only partial support for research hypothesis Ha3: Psychological attachment (organisational commitment and job embeddedness) significantly mediates the relationship between experiences of sources of work stress and attitudes towards change. This research hypothesis assumed that higher levels of experiences of sources of work stress relate to more positive attitudes towards change through lower levels of psychological attachment (organisational commitment and job embeddedness). Experiences of work stress predicted more positive attitudes towards change. Job embeddedness mediated the relationship between job stress and attitudes towards change such that high experiences of work stress are negatively associated with job embeddedness which, in turn, is also negatively associated with attitudes towards change. Those participants with high levels of job stress experiences are likely to be less embedded in their jobs. Job embeddedness (when controlling for the effect of work stress), in turn, is likely to promote negative attitudes towards change, thus partially reducing the positive effect of work stress on attitudes towards change.

Notwithstanding the results showing that experiences of job stress significantly predict organisational commitment (which, in turn, significantly predicts either positive or negative attitudes towards change), commitment is not likely to influence the relationship between experiences of job stress and attitudes towards change.

### **6.3.3 Hierarchical moderated regression analysis**

Hierarchical moderated regression analyses were used to determine which of the biographical variables (age, gender, race and employment level) significantly moderated the relationship between the participants' experiences of work stress and their attitudes towards change. Standardised mean-centred predictor data were used for this purpose. This stage of the inferential statistical analysis tested research hypothesis Ha4: The biographical variables (age, gender, race and employment level) significantly moderate the relationship between experiences of sources of work stress and attitudes towards change; Ha5: the biographical variables (age, gender, race and employment level) that functioned as significant moderating variables in the sources of work stress-attitudes toward change relation differ significantly regarding their sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.

The biographicals were coded as follows:

Age: 0 =  $\leq 25$ ; 1 =  $\geq 25$

Gender: 0 = males; 1 = females

Race: 0 = white; 1 = African black

Employment level: 0 = managerial/ supervisory level; 1 = operational staff

#### *6.3.3.1 Age as a moderator*

Table 6.17 below describes the step of the results of the moderated regression analysis with age as moderator of the relationship between the experiences of sources of work stress and attitudes towards change variables.

Table 6.17

*Results of the Moderated Regression Analysis: The Effects of Experiences of Sources of Work Stress and Age on Attitudes towards Change (Affective, Cognitive and Behavioural)*

	<b>Affective</b>	<b>f<sup>2</sup></b>	<b>Cognitive</b>	<b>f<sup>2</sup></b>	<b>Behavioural</b>	<b>f<sup>2</sup></b>
	<b>β</b>		<b>β</b>		<b>β</b>	
<b>Age</b>	-.07		-.02		.04	
Job role and ambiguity	.09		.55***		.38***	
Age * Job role and ambiguity	-.01	.01	-.06	.04	-.10	.02
Model statistics						
R <sup>2</sup>	.00		.27		.13	
ΔR <sup>2</sup>	.00		.00		.00	
F	1.26		43.61***		16.52***	
ΔF	.92		1.41		2.96	
<b>Age</b>	-.07		-.01		.04*	
Relationships	.09		.47***		.39*	
Age * Relationships	.02	.01	-.05	.03	-.11*	.01
Model Statistics						
R <sup>2</sup>	.01		.20		.12	
ΔR <sup>2</sup>	.00		.00		.01	
F	1.63		30.06***		17.24***	
ΔF	.69		.36		4.08*	
<b>Age</b>	-.06		-.01		.05	
Job tools and equipment	.11		.42***		.30***	
Age * Job tools and equipment	.02	.02	-.06	.02	-.09	.01
Model statistics						
R <sup>2</sup>	.01		.15		.07	
ΔR <sup>2</sup>	.00		.00		.01	
F	2.23		21.83***		9.82***	
ΔF	.13		1.30		2.32	

	<b>Affective</b>	<i>f</i> <sup>2</sup>	<b>Cognitive</b>	<i>f</i> <sup>2</sup>	<b>Behavioural</b>	<i>f</i> <sup>2</sup>
	<b>β</b>		<b>β</b>		<b>β</b>	
Age	-.06		.02		.06*	
Career advancement prospects	.15*		.38***		.33*	
Age * Career advancement prospects	-.04	.02	-.06	.01	-.14*	.01
Model statistics						
<i>R</i> <sup>2</sup>	.01		.12		.08	
Δ <i>R</i> <sup>2</sup>	.00		.00		.02	
<i>F</i>	2.60		17.13***		11.24***	
Δ <i>F</i>	.37		1.04		5.81*	
<b>Age</b>	-.08		-.03		.03	
Job security	.16**		.56***		.43***	
Age * Job security	-.01	.03	-.05	.04	-.07	.02
Model statistics						
<i>R</i>	.02		.29		.16	
Δ <i>R</i> <sup>2</sup>	.00		.00		.00	
<i>F</i>	3.49*		48.47***		23.26***	
Δ <i>F</i>	.01		.80		1.63	
Age	-.07		-.04		.02	
Lack of job autonomy	.19**		.55***		.42***	
Age * Lack of job autonomy	-.04	.04	.00	.04	-.06	.02
Model statistics						
<i>R</i> <sup>2</sup>	.03		.29		.15	
Δ <i>R</i> <sup>2</sup>	.00		.00		.00	
<i>F</i>	4.19**		48.47***		22.10***	
Δ <i>F</i>	.57		.00		1.22	

Note: N = 350. The results represent the final step in the regression model. Standardised regression beta weights ( $\beta$ ) significant at \*\*\* $p \leq .001$ \*\* $p \leq .01$ \* $p \leq .05$ . Age was coded as follows:  $\leq 25 = 0$ ;  $\geq 25 = 1$ .  $f^2$  = Cohen's practical effect size.

As shown in Table 6.17, significant regression models were yielded in terms of the cognitive and behavioural attitudes towards change and all six of the SJS (experiences of sources of work stress) variables. In terms of the affective attitude towards change, significant regression models were yielded only regarding job security and lack of job autonomy.

#### Job/role ambiguity in relation to attitudes toward change (cognitive and behavioural): Effects of age

In terms of the main effects (Table 6.17), job role and ambiguity acted as a significant positive predictor of only cognitive attitudes ( $\beta = .55$ ;  $p \leq .001$ ) and behavioural attitudes ( $\beta = .38$ ;  $p \leq .001$ ), while age did not act as significant predictor of cognitive and behavioural attitudes towards change. The regression model explained 27% ( $R^2 = .27$ ; large practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 13% ( $R^2 = .13$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change. No significant interaction moderating effects were found in terms of age and the relationship between job role and ambiguity and the cognitive and behavioural attitudes towards change variables, respectively.

#### Relationships in relation to attitudes toward change (cognitive and behavioural): Effects of age

As shown in Table 6.17, the regression model explained 20% ( $R^2 = .20$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 12% ( $R^2 = .12$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change. Table 6.17 also indicates, in terms of the main effects, that relationships acted as a significant positive predictor of cognitive attitudes towards change ( $\beta = .47$ ;  $p \leq .001$ ) and behavioural attitudes towards change ( $\beta = .39$ ;  $p \leq .01$ ), while age acted as a significant predictor of only behavioural attitudes towards change ( $\beta = .04$ ,  $p \leq .01$ ). In terms of the interaction effects, age significantly moderated the relationship between relationships and behavioural attitudes towards change ( $p \leq .01$ ;  $f^2 = .01$ ; small effect). No interaction (moderating) effects were found in terms of age and the relationship between the SJS relationships variable and cognitive attitudes towards change variable. A slope test was conducted to investigate the nature of the significant interactions. As indicated in Figure 6.3, the relationship between SJS relationships (independent predictor variable) and the behavioural attitude (dependent/criterion variable) was significantly weaker in terms of the older participants ( $\geq 25$  years) and significantly stronger in terms of the younger participants ( $\leq 25$  years).

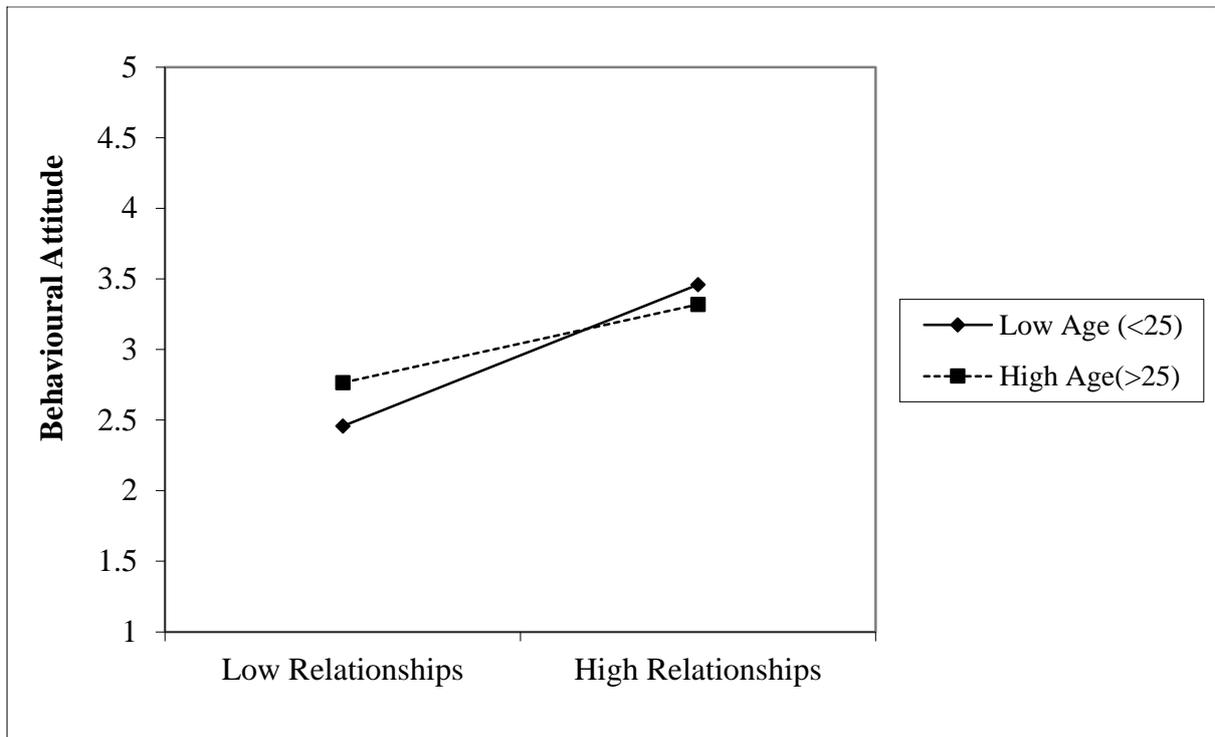


Figure 6.3. Interaction effect between age, SJS relationships and ACQ behavioural attitude

Job tools and equipment in relation to attitudes towards change (cognitive and behavioural):

Effects of age

As shown in Table 6.17, the regression model explained 15% ( $R^2 = .15$ ; moderate practical effect;  $F_p \leq .001$ ) of the variance in the cognitive attitude towards change and 7% ( $R^2 = .07$ ; small practical effect;  $F_p \leq .001$ ) of the variance in the behavioural attitudes towards change. Table 6.17 shows, in terms of the main effects, that job tools and equipment acted as a significant positive predictor of cognitive attitudes towards change ( $\beta = .42$ ;  $p \leq .001$ ) and behavioural attitudes towards change ( $\beta = .30$ ;  $p \leq .001$ ), while age did not act as a significant predictor of cognitive and behavioural attitudes towards change. No significant interaction moderating effects were found in terms of age and the relationship between job tools and equipment and the attitudes towards change variables.

Career advancement prospects in relation to attitudes towards change (cognitive and behavioural): Effects of age

As shown in Table 6.17, the regression model explained 12% ( $R^2 = .12$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude toward schange and 8% ( $R^2 = .08$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude. Table 6.17 also indicates, in terms of the main effects, that career advancement prospects acted as a significant positive predictor of cognitive attitudes towards change ( $\beta = .38$ ;  $p \leq .001$ ) and behavioural attitudes towards change ( $\beta = .33$ ;  $p \leq .01$ ), while age acted as a significant predictor of behavioural attitudes towards change ( $\beta = .06$ ,  $p \leq .01$ ) only. In terms of the interaction effects, age significantly moderated the relationship between career advancement prospects and behavioural attitudes towards change ( $p \leq .01$ ;  $f^2 = .01$ ; small effect). No interaction moderating effects were found in terms of age and the relationship between the career advancement prospects and cognitive attitudes towards change.

A slope test was conducted to investigate the nature of the significant interactions. As indicated in Figure 6.4, the relationship between the participants' career advancement prospects (independent predictor variable) and the behavioural attitudes towards change (dependent/criterion variable) was significantly weaker in terms of the older participants ( $\geq 25$  years) and significantly stronger in terms of the younger participants ( $\leq 25$  years).

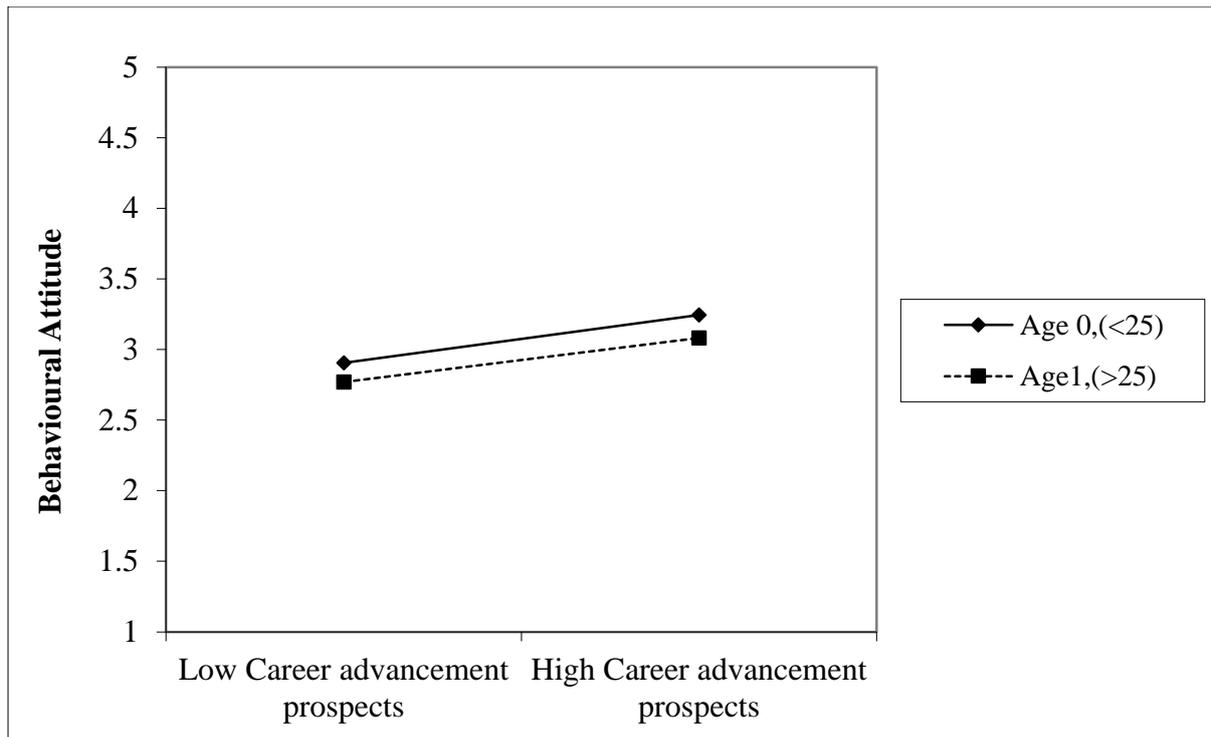


Figure 6.4. Interaction effects between age, career advancement prospect and behavioural attitude

Job security in relation to attitudes towards change (affective, cognitive and behavioural):  
Effects of age

As shown in Table 6.17, the regression models explained 2% ( $R^2 = .02$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the affective attitude towards change, 29% ( $R^2 = .29$ ; large practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 16% ( $R^2 = .16$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change. Table 6.17 shows, in terms of the main effects, that job security acted as a significant positive predictor of the affective attitude towards change ( $\beta = .16$ ;  $p \leq .01$ ), cognitive attitude ( $\beta = .56$ ;  $p \leq .001$ ) and behavioural attitude ( $\beta = .43$ ;  $p \leq .001$ ), while age did not act as a significant predictor of the affective, cognitive and behavioural attitudes towards change. No significant interaction moderating effects were found in terms of age and the relationship between job security and the attitudes towards change variables.

### Lack of job autonomy in relation to attitudes toward change (affective, cognitive and behavioural): Effects of age

As shown in Table 6.17, the regression models explained 3% ( $R^2 = .03$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the affective attitude towards change, 29% ( $R^2 = .29$ ; large practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 15% ( $R^2 = .15$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change.

Moreover, Table 6.17 shows, in terms of the main effects, that lack of job autonomy acted as a significant positive predictor of the affective attitude toward change ( $\beta = .19$ ;  $p \leq .01$ ), cognitive attitude towards change ( $\beta = .55$ ;  $p \leq .001$ ) and behavioural attitude towards change ( $\beta = .42$ ;  $p \leq .001$ ), while age did not act as a significant predictor of the affective, cognitive and behavioural attitude towards change. No significant interaction moderating effects were found in terms of age and the relationship between lack of job autonomy and the attitudes towards change variables.

In summary, there were no moderating effects of age on job role and ambiguity in relation to attitudes towards change. However, age moderated the relationship between relationships and behavioural attitudes towards change. The behavioural attitudes were weaker in terms of older participants when compared to younger participants. Age did not moderate the relationship between job tools and equipment and attitudes towards change (affective, cognitive and behavioural). Age, however, moderated the relationship between career advancement and prospects and behavioural attitudes towards change. The behavioural attitudes observed were weaker in terms of the older participants when compared to the younger participants. It was also found that age did not moderate the relationship between job security and attitudes towards change (affective, cognitive and behavioural). Similarly, age did not moderate the relationship between lack of job autonomy and attitudes towards change (affective, cognitive and behavioural).

#### 6.3.3.2 *Gender as moderator*

Table 6.18 below describes the steps of the results of the moderated regression analysis with gender as moderator of the relationship between experiences of sources of work stress and attitudes towards change.

As shown in Table 6.18, significant regression models were yielded in terms of the cognitive and behavioural attitudes towards change and all six of the SJS variables. In terms of the affective attitude towards change, significant regression models were yielded only regarding job security and lack of job autonomy.

Table 6.18

*Results of the Moderated Regression Analysis: The Effects of Experiences of Sources of Work Stress and Gender on Attitudes towards Change (Affective, Cognitive and Behavioural)*

	<b>Affective</b>	<b>f<sup>2</sup></b>	<b>Cognitive</b>	<b>f<sup>2</sup></b>	<b>Behavioural</b>	<b>f<sup>2</sup></b>
	<b>β</b>		<b>β</b>		<b>β</b>	
<b>Gender</b>	-0.02		-0.05		-.13*	
Job role and ambiguity	.07		.52***		.35*	
Gender * Job role and ambiguity	.01	.00	.01	.04	.01*	.01
Model statistics						
R <sup>2</sup>	-.00		.28		.13	
ΔR <sup>2</sup>	.00		.00		.00	
F	.76		43.41***		17.56***	
ΔF	.02		.03		.01	
<b>Gender</b>	-0.02		-0.03		-.12*	
Relationships	.10		.43***		.35***	
Gender * Relationships	-.00	.00	.04	.03	.00	.01
Model statistics						
R <sup>2</sup>	.00		.21		.12	
ΔR <sup>2</sup>	.00		.00		.00	
F	1.06		30.05***		17.53***	
ΔF	.00		.48		.01	
<b>Gender</b>	-0.02		-0.03		-.11*	
Job tools and equipment	.15*		.40***		.25*	
Gender * Job tools and equipment	-.05	.02	-.01		.04*	.09
Model statistics						
R <sup>2</sup>	.01		.15		.07	
ΔR <sup>2</sup>	.00		.00		.00	
F	1.94		21.41***		10.29***	
ΔF	.48		.02		.38	

	<b>Affective</b>	<b>f<sup>2</sup></b>	<b>Cognitive</b>	<b>f<sup>2</sup></b>	<b>Behavioural</b>	<b>f<sup>2</sup></b>
	<b>β</b>		<b>β</b>		<b>β</b>	
Gender	-.02		-.03		-.12*	
Career advancement prospects	.16		.36***		.26***	
Gender * Career advancement prospects	-.05	.01	-.00	.01	.02	.09
<b>Model statistics</b>						
R <sup>2</sup>	.01		.12		.08	
ΔR <sup>2</sup>	.00		.00		.00	
F	2.33		16.80***		10.39***	
ΔF	.55		.00		.06	
<b>Gender</b>	-.02		-.05		-.13*	
Job security	.13		.54***		.40***	
Gender * Job security	.05	.03	.00	.04	.02	.02
<b>Model statistics</b>						
R <sup>2</sup>	.02		.29		.17	
ΔR <sup>2</sup>	.00		.00		.00	
F	3.04*		48.24***		25.21***	
ΔF	.58		.00		.13	
Gender	-.02		-.03		-.11*	
Lack of job autonomy	.20**		.55***		.44***	
Gender * Lack of job autonomy	-.07	.02	-.02	.04	-.06	.02
<b>Model statistics</b>						
R <sup>2</sup>	.02		.29		.17	
ΔR <sup>2</sup>	.00		.00		.00	
F	3.65*		48.31***		24.13***	
ΔF	1.11		.09		.93	

Note: N = 350. The results represent the final step in the regression model. Standardised regression beta weights (β) significant at \*\*\*p ≤ .001 \*\*p ≤ .01 \*p ≤ .05. Gender was coded as follows: males=0; females=1. f<sup>2</sup> = Cohen's practical effect size.

#### Job/role ambiguity in relation to attitudes towards change (cognitive and behavioural):

##### Effects of gender

As shown in Table 6.18, the regression models explained 28% (R<sup>2</sup> = .28; large practical effect; Fp ≤ .001) of the variance in the cognitive attitude towards change and 13% (R<sup>2</sup> = .13; moderate practical effect; Fp ≤ .001) of the variance in the behavioural attitude towards

change. Table 6.18 shows that in terms of the main effects, job role and ambiguity acted as a significant positive predictor of the cognitive attitude towards change ( $\beta = .52$ ;  $p \leq .001$ ) and behavioural attitude toward change ( $\beta = .35$ ;  $p \leq .01$ ), while gender acted as a significant negative predictor of the behavioural attitude towards change ( $\beta = -.13$ ;  $p \leq .01$ ).

In terms of the interaction effects, gender significantly moderated the relationship between job role and ambiguity and the behavioural attitude towards change ( $p \leq .01$ ;  $f^2 = .01$ ; small effect). No interaction moderating effects were found in terms of gender and the relationship between job role and ambiguity and the cognitive attitude towards change.

Figure 6.5 shows that for the males, the relationship between job role and ambiguity and the behavioural attitude towards change was significantly stronger than for the females. The males who scored even lower on job role and ambiguity also had significantly higher scores than the females on the behavioural attitude towards change.

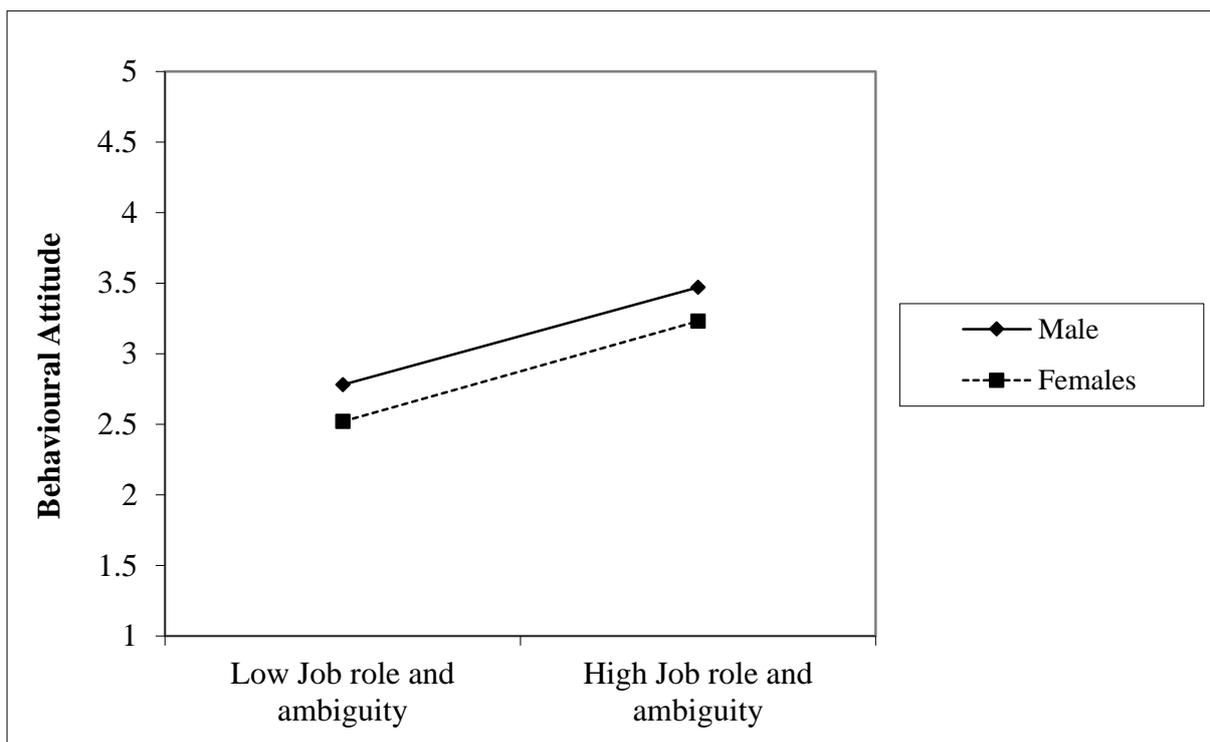


Figure 6.5. Interaction effects between gender, job role and ambiguity and attitudes behavioural

### Relationships in relation to attitudes towards change (cognitive and behavioural): Effects of gender

As shown in Table 6.18, the regression models explained 21% ( $R^2 = .21$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 12% ( $R^2 = .12$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change.

Table 6.18 also shows, in terms of the main effects, that relationships acted as a significant predictor of the cognitive attitude towards change ( $\beta = .43$ ;  $p \leq .001$ ) and behavioural attitude towards change ( $\beta = .35$ ;  $p \leq .001$ ) while gender acted as a significant negative predictor of the behavioural attitude towards change ( $\beta = -.12$ ;  $p \leq .01$ ). In terms of the interaction effects, gender did not significantly moderate the relationship between relationships and the cognitive and behavioural attitudes towards change.

### Job tools and equipment in relation to attitudes towards change (cognitive and behavioural): Effects of gender

As shown in Table 6.18, the regression models explained 15% ( $R^2 = .15$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 7% ( $R^2 = .07$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change.

Table 6.18 shows also that, in terms of the main effects, job tools and equipment acted as a significant positive predictor of the cognitive attitude towards change ( $\beta = .40$ ;  $p \leq .001$ ) and behavioural attitude towards change ( $\beta = .25$ ;  $p \leq .01$ ), while gender acted as significant negative predictor of behavioural attitude towards change ( $\beta = -.11$ ;  $p \leq .01$ ). In terms of the interaction effects, gender significantly moderated the relationship between job tools and equipment and behavioural attitude towards change ( $p \leq .04$ ;  $f^2 = .09$ ; moderate effect). No interaction moderating effects were found in terms of gender and the relationship between job tools and equipment and the cognitive attitude towards change.

Figure 6.6 shows that for the males, the relationship between job tools and equipment and behavioural attitude towards change was stronger than for the females. The males who even scored lower on job tools and equipment also had significantly higher scores than the females on behavioural attitude towards change.

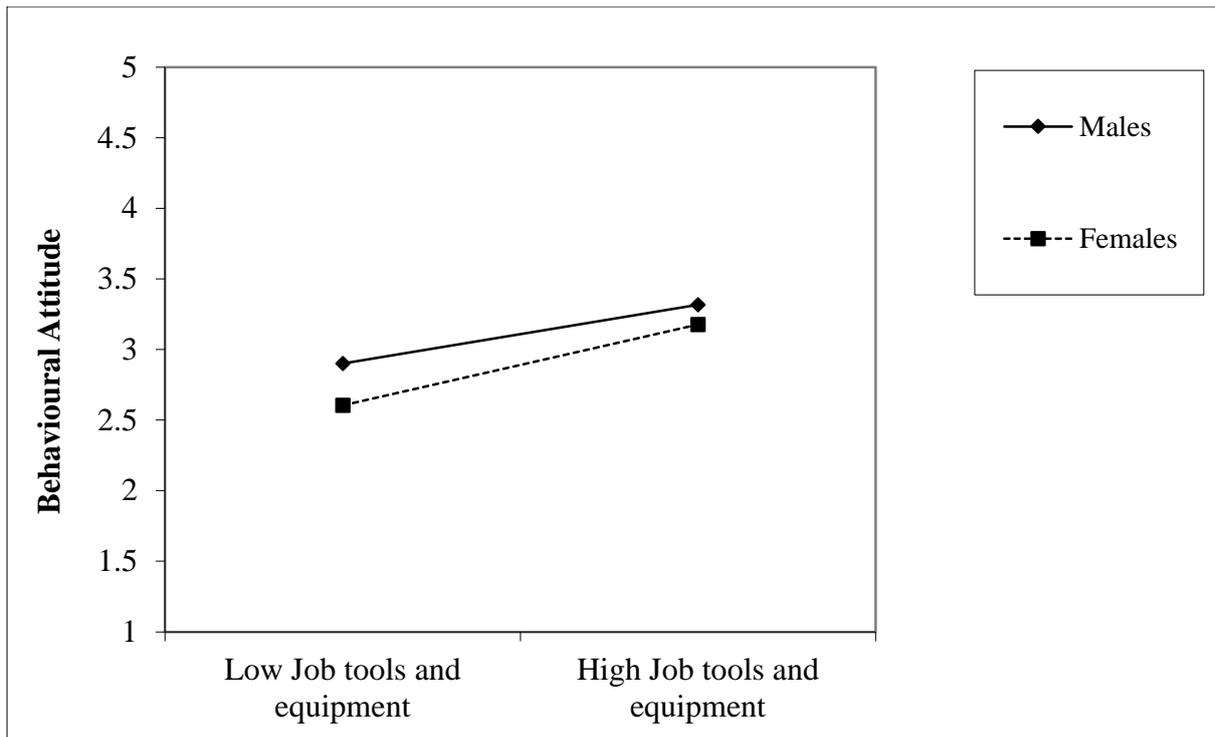


Figure 6.6. Interaction effect between gender, job tools and equipment and behavioural attitude

Career advancement prospects in relation to attitudes towards change (cognitive and behavioural): Effects of gender

As shown in Table 6.18, the regression models explained 12% ( $R^2 = .12$ ; small practical effect;  $F_p \leq .001$ ) of the variance in cognitive attitude towards change and 8% ( $R^2 = .08$ ; small practical effect;  $F_p \leq .001$ ) of variance in the behavioural attitude towards change.

Table 6.18 also shows, in terms of the main effects, that career advancement prospects acted as a significant positive predictor of cognitive attitude towards change ( $\beta = .36$ ;  $p \leq .001$ ) and behavioural attitude towards change ( $\beta = .26$ ;  $p \leq .001$ ), while gender acted as a significant negative predictor of behavioural attitude towards change ( $\beta = -.12$ ;  $p \leq .01$ ). In terms of the interaction effects, gender did not significantly moderate the relationship between career advancement prospects and cognitive and behavioural attitude towards change.

Job security in relation to attitudes toward change (affective, cognitive and behavioural):

Effects of gender

As shown in Table 6.18, the regression models explained 2% ( $R^2 = .02$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the affective attitude towards change; 29% ( $R^2 = .29$ ; large practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 17% ( $R^2 = .17$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change.

Furthermore, Table 6.18 shows, in terms of the main effects, that job security acted as a significant positive predictor of the cognitive attitude towards change ( $\beta = .54$ ;  $p \leq .001$ ) and behavioural attitude towards change ( $\beta = .40$ ;  $p \leq .001$ ), while gender acted as a significant negative predictor of behavioural attitude towards change ( $\beta = -.13$ ;  $p \leq .01$ ). No interaction moderating effects were found in terms of gender and the relationship between job security and affective and cognitive and behavioural attitudes towards change.

Lack of job autonomy in relation to attitudes towards change (affective, cognitive and behavioural): Effects of gender

As shown in Table 6.18, the regression models explained 2% ( $R^2 = .02$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the affective attitude towards change; 29% ( $R^2 = .29$ ; large practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 17% ( $R^2 = .17$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change.

Table 6.18 shows, in terms of the main effects, that lack of job autonomy acted as a significant positive predictor of affective attitude towards change ( $\beta = .20$ ;  $p \leq .01$ ), cognitive attitude towards change ( $\beta = .55$ ;  $p \leq .001$ ) and behavioural attitude towards change ( $\beta = .44$ ;  $p \leq .001$ ), while gender acted as a significant negative predictor of behavioural attitude towards change ( $\beta = -.11$ ;  $p \leq .01$ ). No interaction moderating effects were found in terms of gender and the relationship between lack of job autonomy and the affective and cognitive and behavioural attitudes towards change.

In summary, no moderating effects were evident between gender and the cognitive attitude towards change. However, gender significantly moderated the relationship between job role and ambiguity and the behavioural attitude towards change. Males demonstrated higher behavioural attitude towards change when compared to females. No moderating effects were observed between gender, relationships and attitudes towards change. Gender, however, moderated the relationship between job tools and equipment and behavioural attitude towards change. Males showed higher behavioural attitudes when compared to females. No moderating effects were observed between gender, job tools and equipment and cognitive attitude towards change. Gender did not significantly moderate the relationship between career advancement and prospects and attitudes towards change. Also, no moderating effects were observed in terms of gender, job security and attitudes towards change. Similarly, no moderating effects were observed in terms of gender, lack of job autonomy and attitudes towards change.

#### 6.3.3.3 *Race as moderator*

Table 6.19 below describes the results of the moderated regression analysis with race as moderator of the relationship between experiences of sources of work stress and attitudes towards change.

As shown in Table 6.19, significant regression models were yielded in terms of the cognitive and behavioural attitudes towards change and all six of the SJS variables. In terms of the affective attitude towards change, significant regression models were yielded only regarding job security and lack of job autonomy.

Table 6.19

*Results of the Moderated Regression Analysis: The Effects of Experiences of Sources of Work Stress and Race on Attitudes towards Change (Affective, Cognitive and Behavioural)*

	<b>Affective</b>	<b>f<sup>2</sup></b>	<b>Cognitive</b>	<b>f<sup>2</sup></b>	<b>Behavioural</b>	<b>f<sup>2</sup></b>
	<b>β</b>		<b>β</b>		<b>β</b>	
<b>Race</b>	.05		.03		.13*	
Job role and ambiguity	.13		.52***		.38**	
Race * Job role and ambiguity	-.04	.00	-.00	.04	-.03	.01
Model statistics						
<i>R</i> <sup>2</sup>	.00		.26		.13	
Δ <i>R</i> <sup>2</sup>	.00		.00		.00	
<i>F</i>	1.03		37.32***		16.16***	
Δ <i>F</i>	.11		.00		.08	
Race	.04		-.01		.10	
Relationships	.14		.41***		.43***	
Race * Relationships	-.03	.01	.04	.03	-.07	.02
Model statistics						
<i>R</i> <sup>2</sup>	.00		.19		.14	
Δ <i>R</i> <sup>2</sup>	.00		.00		.00	
<i>F</i>	1.37		26.09***		17.27***	
Δ <i>F</i>	.06		.13		.38	
<b>Race</b>	.04		.00		.11	
Job tools and equipment	.18		.33**		.33**	
Race * Job tools and equipment	-.05	.01	.06	.02	-.06	.09
Model statistics						
<i>R</i> <sup>2</sup>	.01		.14		.08	
Δ <i>R</i> <sup>2</sup>	.00		.00		.00	
<i>F</i>	2.00		18.35***		9.74***	
Δ <i>F</i>	.18		.28		.28	

	<b>Affective</b>	<b>f<sup>2</sup></b>	<b>Cognitive</b>	<b>f<sup>2</sup></b>	<b>Behavioural</b>	<b>f<sup>2</sup></b>
	<b>β</b>		<b>β</b>		<b>β</b>	
Race	.05		.01		.12*	
Career advancement prospects	.12		.25		.20	
Race * Career advancement prospects	.02	.01	.12	.01	.09	.09
Model statistics						
R <sup>2</sup>	.01		.12		.08	
ΔR <sup>2</sup>	.00		.00		.00	
F	2.12		15.27***		10.16***	
ΔF	.06		.88		.50	
<b>Race</b>	.05		.03		.13*	
Job security	.21		.56***		.46***	
Race * Job security	-.04	.03	-.02	.04	-.03	.02
Model statistics						
R <sup>2</sup>	.02		.28		.19	
ΔR <sup>2</sup>	.00		.00		.00	
F	3.20*		42.23***		24.90***	
ΔF	.13		.05		.09	
Race	.04		.01		.11*	
Lack of job autonomy	.28*		.51***		.48***	
Race * Lack of job autonomy	-.11	.03	.05	.04	-.07	.02
Model statistics						
R <sup>2</sup>	.03		.29		.17	
ΔR <sup>2</sup>	.00		.00		.00	
F	4.03*		44.04***		22.80***	
ΔF	.90		.21		.48	

Note: N = 350. The results represent the final step in the regression model. Standardised regression beta weights (β) significant at \*\*\*p ≤ .001 \*\*p ≤ .01 \*p ≤ .05. Race was coded as follows: white=0; African black=1. f<sup>2</sup> = Cohen's practical effect size.

#### Job/ role ambiguity in relation to attitudes towards change: Effects of race

As shown in Table 6.19, the regression models explained 26% ( $R^2 = .26$ ; large practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 13% ( $R^2 = .13$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change. Table 6.19 shows, in terms of the main effects, that job role and ambiguity acted as a significant predictor of only cognitive attitude towards change ( $\beta = .52$ ;  $p \leq .001$ ) and behavioural attitude towards change ( $\beta = .38$ ;  $p \leq .001$ ), while race acted as a significant positive predictor of behavioural attitude towards change ( $\beta = .13$ ;  $p \leq .01$ ). In terms of the interaction effects, race did not significantly moderate the relationship between job role and ambiguity and affective, cognitive and behavioural attitudes towards change.

#### Relationships in relation to attitudes towards change: Effects of race

As shown in Table 6.19, the regression models explained 19% ( $R^2 = .19$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 14% ( $R^2 = .14$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change. Table 6.19 shows that in terms of the main effects, relationship acted as a significant predictor of only cognitive attitude towards change ( $\beta = .41$ ;  $p \leq .001$ ) and behavioural attitudes towards change ( $\beta = .43$ ;  $p \leq .001$ ), while race did not act as a significant predictor of affective, cognitive and behavioural attitudes towards change. In terms of the interaction effects, race did not significantly moderate the relationship between relationship and affective, cognitive and behavioural attitudes towards change.

#### Job tools and equipment in relation to attitudes towards change: Effects of race

As shown in Table 6.19, the regression models explained 1% ( $R^2 = .01$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the affective attitude towards change, 14% ( $R^2 = .14$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 8% ( $R^2 = .08$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change. Table 6.19 shows, in terms of the main effects, that job tools and equipment acted as a significant predictor of only cognitive attitude towards change ( $\beta = .33$ ;  $p \leq .001$ ) and behavioural attitude towards change ( $\beta = .33$ ;  $p \leq .001$ ), while race did not act as significant predictor of affective, cognitive and behavioural attitude towards change. In terms of the interaction effects, race did not significantly moderate the relationship between job tools and equipment and affective, cognitive and behavioural attitudes towards change.

#### Career advancement prospects in relation to attitudes towards change: Effects of race

As shown in Table 6.19, the regression models explained 1% ( $R^2 = .01$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the affective attitude towards change, 12% ( $R^2 = .12$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 8% ( $R^2 = .08$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change. Table 6.19 shows that in terms of the main effects, career advancement prospects did not act as a significant predictor of the affective attitude towards change, cognitive attitude towards change and behavioural attitude towards change, while race did act as a significant positive predictor of behavioural attitude towards change ( $\beta = .12$ ;  $p \leq .01$ ). In terms of the interaction effects, race did not significantly moderate the relationship between career advancement prospects and affective, cognitive and behavioural attitudes towards change.

#### Job security in relation to attitudes towards change: Effects of race

As shown in Table 6.19, the regression models explained 2% ( $R^2 = .02$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the affective attitude towards change, 28% ( $R^2 = .28$ ; large practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 19% ( $R^2 = .19$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change. Table 6.19 also shows, in terms of the main effects, that job security acted as a significant predictor of only cognitive attitude towards change ( $\beta = .56$ ;  $p \leq .001$ ) and behavioural attitude towards change ( $\beta = .46$ ;  $p \leq .001$ ), while race acted as a significant positive predictor of behavioural attitude towards change ( $\beta = .13$ ;  $p \leq .01$ ). In terms of the interaction effects, race did not significantly moderate the relationship between job security and affective, cognitive and behavioural attitudes towards change.

#### Lack of job autonomy in relation to attitudes towards change: Effects of race

As shown in Table 6.19, the regression models explained 3% ( $R^2 = .03$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the affective attitude towards change, 29% ( $R^2 = .29$ ; large practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 17% ( $R^2 = .17$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change. Table 6.19 shows also that, in terms of the main effects, lack of job autonomy acted as a significant predictor of affective attitude towards change ( $\beta = .28$ ;  $p \leq .01$ ), cognitive attitude towards change ( $\beta = .51$ ;  $p \leq .001$ ) and behavioural attitude towards change ( $\beta = .48$ ;  $p \leq .001$ ), while race acted as a significant positive predictor of behavioural

attitude towards change ( $\beta = .11$ ;  $p \leq .01$ ). In terms of the interaction effects, race did not significantly moderate the relationship between lack of job autonomy and affective, cognitive and behavioural attitude towards change.

In summary, no moderating effects were observed between race and the relationship between job role and ambiguity and attitudes towards change (affective, cognitive and behavioural). Race did not moderate the relationship between relationships and attitudes towards change (affective, cognitive and behavioural). Race also did not moderate the relationship between job tools and equipment and attitudes towards change (affective, cognitive and behavioural). It was also found that race did not play a moderating role between career advancement and prospects and attitudes towards change (affective, cognitive and behavioural). Similarly, it was observed that race did not moderate the relationship between job security, lack of job autonomy and attitudes towards change (affective, cognitive and behavioural).

#### *6.3.3.4 Employment level as moderator*

Table 6.20 below describes the steps of the results of the moderated regression analysis with employment level as moderator of the relationship between experiences of sources of work stress and attitudes towards change.

Table 6.20

*Results of the Moderated Regression Analysis: The Effects of Experiences of Sources of Work Stress and Employment Level on Attitudes towards Change (Affective, Cognitive and Behavioural)*

	<b>Affective</b>	<b>f<sup>2</sup></b>	<b>Cognitive</b>	<b>f<sup>2</sup></b>	<b>Behavioural</b>	<b>f<sup>2</sup></b>
	<b>β</b>		<b>β</b>		<b>β</b>	
<b>Employment level</b>	-.04		.06***		.07	
Job role and ambiguity	.10		.06		.35***	
Employment level * Job role and ambiguity	-.02	.00	-.04	.04	-.01	.01
Model statistics						
R <sup>2</sup>	.00		.27		.11	
ΔR <sup>2</sup>	.00		.00		.00	
F	.91		43.84***		15.98***	
ΔF	.04		.28		.00	
Employment level	-.04		.06		.07	
Relationships	.17		.45***		.36***	
Employment level * Relationships	-.09	.00	-.00	.03	-.01	.01
Model statistics						
R <sup>2</sup>	.00		.20		.12	
ΔR <sup>2</sup>	.00		.00		.00	
F	1.49		30.29***		16.20***	
ΔF	.80		.00		.02	
<b>Employment level</b>	-.04		.05		.06	
Job tools and equipment	.13		.41***		.28**	
Employment level * Job tools and equipment	-.01	.00	-.02	.02	-.02	.01
Model statistics						
R <sup>2</sup>	.01		.15		.07	
ΔR <sup>2</sup>	.00		.00		.00	
F	1.97		21.71***		9.08***	
ΔF	.01		.03		.04	

	<b>Affective</b>	<b>f<sup>2</sup></b>	<b>Cognitive</b>	<b>f<sup>2</sup></b>	<b>Behavioural</b>	<b>f<sup>2</sup></b>
	<b>β</b>		<b>β</b>		<b>β</b>	
Model statistics						
R <sup>2</sup>	.01		.15		.07	
ΔR <sup>2</sup>	.00		.00		.00	
F	1.97		21.71***		9.08***	
ΔF	.01		.03		.04	
Employment level	-.03		.09		.09	
Career advancement prospects	.08		.37***		.25*	
Employment level *	.07	.00	-.00	.01	.02	.01
Career advancement prospects						
Model statistics						
R <sup>2</sup>	.01		.13		.07	
ΔR <sup>2</sup>	.00		.00		.00	
F	2.34		17.83***		9.68***	
ΔF	.00		.00		.06	
Employment level	-.04		.07		.07	
Job security	.13		.55***		.36***	
Employment level *	.03	.00	-.01	.04	.05	.02
Job security						
Model statistics						
R <sup>2</sup>	.02		.29		.16	
ΔR <sup>2</sup>	.00		.00		.00	
F	2.99*		48.77***		23.56***	
ΔF	.07		.01		.38	
Employment level	-.03		.08		.08	
Lack of job autonomy	.18		.52***		.41***	
Employment level *	-.01	.00	.03	.04	-.01	.03
Lack of job autonomy						
Employment level *	-.01	.00	.03	.04	-.01	.03
Lack of job autonomy						

	<b>Affective</b>	<b>f<sup>2</sup></b>	<b>Cognitive</b>	<b>f<sup>2</sup></b>	<b>Behavioural</b>	<b>f<sup>2</sup></b>
	<b>β</b>		<b>β</b>		<b>β</b>	
Model statistics						
R <sup>2</sup>	.02		.30		.16	
ΔR <sup>2</sup>	.00		.00		.00	
F	3.38*		49.60***		22.72***	
ΔF	.02		.13		.00	

*Note:* N = 350. The results represent the final step in the regression model. Standardised regression beta weights (β) significant at \*\*\* $p \leq .001$ \*\* $p \leq .01$ \* $p \leq .05$ . Employment level was coded as follows: managerial/ supervisory level = 0; operational staff = 1.  $f^2$  = Cohen's practical effect size.

#### Job/ role ambiguity in relation to attitudes towards change: Effects of employment level

As shown in Table 6.20, the regression models explained 27% ( $R^2 = .27$ ; large practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 11% ( $R^2 = .11$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change. Table 6.20 also shows, in terms of the main effects, that job role and ambiguity acted as a significant predictor only of behavioural attitude towards change ( $\beta = .35$ ;  $p \leq .001$ ), while employment level acted as significant positive predictor of cognitive attitude towards change ( $\beta = .06$ ;  $p \leq .001$ ). In terms of the interaction effects, employment level did not significantly moderate the relationship between job role and ambiguity and affective, cognitive and behavioural attitudes towards change.

#### Relationships in relation to attitudes towards change: Effects of employment level

As shown in Table 6.20, the regression models explained 20% ( $R^2 = .20$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 12% ( $R^2 = .12$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change. Table 6.20 also shows, in terms of the main effects, that relationships acted as a significant predictor of cognitive attitude toward change ( $\beta = .45$ ;  $p \leq .001$ ) and behavioural attitude towards change ( $\beta = .36$ ;  $p \leq .001$ ), while employment level did not act as a significant predictor of the affective, cognitive and behavioural attitudes towards change. In terms of the interaction effects, employment level did not significantly moderate the relationship between relationships as a source of work stress and the affective, cognitive and behavioural attitudes toward change.

#### Job tools and equipment in relation to attitudes towards change: Effects of employment level

As shown in Table 6.20, the regression models explained 1% ( $R^2 = .01$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the affective attitude towards change, 15% ( $R^2 = .15$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 7% ( $R^2 = .07$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change. Table 6.20 also shows, in terms of the main effects, that job tools and equipment acted as a significant predictor of the cognitive attitude towards change ( $\beta = .41$ ;  $p \leq .001$ ) and the behavioural attitude towards change ( $\beta = .28$ ;  $p \leq .01$ ), while employment level did not act as a significant predictor of the affective, cognitive and behavioural attitudes towards change. In terms of the interaction effects, employment level did not significantly moderate the relationship between job tools and equipment and the affective, cognitive and behavioural attitude towards change.

#### Career advancement prospects in relation to attitudes towards change: Effects of employment level

As shown in Table 6.20, the regression models explained 1% ( $R^2 = .01$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the affective attitude towards change, 13% ( $R^2 = .13$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 7% ( $R^2 = .07$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change. Table 6.20 shows, in terms of the main effects, that career advancement prospects acted as a significant predictor of the cognitive attitude towards change ( $\beta = .37$ ;  $p \leq .001$ ) and the behavioural attitude towards change ( $\beta = .25$ ;  $p \leq .01$ ), while employment level did not act as a significant predictor of the affective, cognitive and behavioural attitudes towards change. In terms of the interaction effects, employment level did not significantly moderate the relationship between career advancement prospects and the affective, cognitive and behavioural attitudes.

#### Job security in relation to attitudes towards change: Effects of employment level

As shown in Table 6.20, the regression models explained 2% ( $R^2 = .02$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the affective attitude towards change, 29% ( $R^2 = .29$ ; large practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 16% ( $R^2 = .16$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change.

Table 6.20 shows that, in terms of the main effects, job security acted as a significant predictor of the cognitive attitudes towards change ( $\beta = .55$ ;  $p \leq .001$ ) and the behavioural attitudes towards change ( $\beta = .36$ ;  $p \leq .001$ ), while employment level did not act as a significant predictor of the affective, cognitive and behavioural attitudes towards change. In terms of the interaction effects, employment level did not significantly moderate the relationship between job security and the affective, cognitive and behavioural attitudes towards change.

#### Lack of job autonomy in relation to attitudes towards change: Effects of employment level

As shown in Table 6.20, the regression models explained 2% ( $R^2 = .02$ ; small practical effect;  $Fp \leq .001$ ) of the variance in the affective attitude towards change, 30% ( $R^2 = .30$ ; large practical effect;  $Fp \leq .001$ ) of the variance in the cognitive attitude towards change and 16% ( $R^2 = .16$ ; moderate practical effect;  $Fp \leq .001$ ) of the variance in the behavioural attitude towards change. Further, Table 6.20 shows, in terms of the main effects, that lack of job autonomy acted as a significant predictor of the cognitive attitude towards change ( $\beta = .52$ ;  $p \leq .001$ ) and the behavioural attitude towards change ( $\beta = .41$ ;  $p \leq .01$ ), while employment level did not act as a significant predictor of affective, cognitive and behavioural attitudes towards change. In terms of the interaction effects, employment level did not significantly moderate the relationship between lack of job autonomy and the affective, cognitive and behavioural attitudes towards change.

In summary, employment level did not moderate the relationship between the SJS variables (job role and ambiguity, relationships, job tools and equipment, career advancement prospects, job security and lack of job autonomy) and attitudes towards change (affective, cognitive and behavioural).

The results obtained from the hierarchical moderated regression analysis provided supportive evidence for research hypothesis Ha4: The biographical variables (age, gender, race and employment level) significantly moderate the relationship between experiences of sources of work stress and attitudes towards change. It should be noted that although there were a high number of main effects, four interaction effects were evident.

### 6.3.4 Reporting of the tests for significant mean differences

The objective of this section is to further investigate whether the significant biographical moderating variables differed significantly in terms of the SJS (independent variables), OCQ and JEQ (mediating variables) and ACQ (dependent variables). Moreover, this section reports age and its differences in terms of experiences of sources of work stress, organisational commitment and job embeddedness. Gender did not reveal any significant mean differences in terms of sources of work stress, organisational commitment and job embeddedness and attitudes towards change. Race and its differences in terms of organisational commitment are also reported. Lastly, employment level and its differences in terms of sources of work stress, organisational commitment and attitudes towards change are reported.

#### 6.3.4.1 Age: Differences in terms of sources of job stress

This section discusses age and its differences in terms of participants' experiences of sources of work stress. Table 6.21 below provides a summary of the Kruskal-Wallis test on age and experiences of sources of work stress, specifically job security and lack of job autonomy.

Table 6.21

*Kruskal-Wallis Test on Age and Job Security, Lack of Job Autonomy (Age – Experiences of Sources of Work Stress)*

	Standardised test statistics	
	Job security	Lack of job autonomy
25 years and younger and 26 to 40 years	-2.25*	-2.88**
25 years and younger and 41 to 55 years	-2.90**	-3.44***
Independent – samples Kruskal-Wallis test summary	8.82*** (df: 3)	12.77*** (df: 3)

Note: N = 350. \*\*\* $p \leq .001$ \*\* $p \leq .01$ \* $p \leq .05$

Table 6.22 below provides a summary of the means and standard deviations obtained for experiences of sources of work stress (job security and lack of job autonomy) and age.

Table 6.22

*Means and Standard Deviations of Experiences of Sources of Work Stress (Job Security, Lack of Job Autonomy) and Age*

	<b>MEANS (STANDARD DEVIATIONS)</b>	
	<b>Job security</b>	<b>Lack of job autonomy</b>
25 years and younger	3.44 (1.41)	3.04 (1.41)
26 to 40 years	3.93 (1.22)	3.68 (1.19)
41 to 55 years	4.14 (1.22)	3.93 (1.17)

Note: N = 350

The pairwise comparison test in Table 6.21 revealed statistically significant differences in job security levels across two different age groups (group 1: 25 years and younger and 26 –40 years; group 2: 25 years and younger and 45 – 55 years).

According to the results reported in Tables 6.21 and 6.22, the group 26 to 40 years (participants older than 25 years) scored significantly higher on job security when compared to younger participants (25 years and younger). Moreover, comparing the mean scores in Table 6.22, it is evident that those participants in the age group of 26 to 40 years obtained a higher mean score ( $M = 3.93$ ) than those in the 25 years and younger age group, who obtained a mean score of 3.44 on job security. Furthermore, more detailed comparisons of the mean scores in Table 6.22 showed that those participants in the age group of 41 to 55 years obtained a significantly higher mean score ( $M = 4.14$ ) than those in the 25 years and younger age group, who obtained a mean score of 3.44 on job security.

The pairwise comparison test in Table 6.21 revealed statistically significant differences in the lack of job autonomy levels across two different age groups (group 1: 25 years and younger and 26 – 40 years; group 2: 25 years and younger and 45 – 55 years). According to these results, the age group 25 years and younger scored significantly lower than those older than 25 years (41 – 55 years) on lack of job autonomy. Moreover, comparing the mean scores in Table 6.22, it is evident that those participants in the age group of 26 to 40 years obtained a significantly higher mean score ( $M = 3.68$ ) than those in the 25 years and younger age group, who obtained a mean score of 3.04 on lack of job autonomy.

Further, comparing the mean scores in Table 6.22, the results show that those participants in the age group of 41 to 55 years obtained a significantly higher mean score ( $M = 3.93$ ) than

those within the 25 years and younger age group who obtained a mean score of 3.04 on lack of job autonomy.

#### 6.3.4.2 Age: Differences in terms of organisational commitment

This section will discuss age and its differences in terms of the participants' experiences of organisational commitment. Table 6.23 below provides a summary of the Kruskal-Wallis test on age and experiences of organisational commitment, specifically affective and continuance commitment.

Table 6.23

*Kruskal-Wallis Test on Age and Affective, Continuance Organisational Commitment (Age – Experiences of Organisational Commitment)*

		Standardised test statistics	
		Affective	Continuance
25 years and younger and		-2.26*	-.33
26 to 40 years			
25 years and younger and		-3.59***	-2.71**
41 to 55 years			
25 years and younger and		-.06	-2.70**
56 years and older			
26 to 40 years and 41 to 55		-.234*	-3.25***
years			
26 to 40 years and 56 years		.93	-2.72**
and older			
Independent	samples	13.83*** (df: 3)	17.81*** (df: 3)
Kruskal-Wallis	test		
summary			

Note: N = 350. \*\*\* $p \leq .001$ \*\* $p \leq .01$ \* $p \leq .05$

Table 6.24 below provides a summary of the means and standard deviations obtained for experiences of organisational commitment (affective commitment and continuance commitment) and age.

Table 6.24

*Means and Standard Deviations of Experiences of Organisational Commitment (Affective Commitment, Continuance Commitment) and Age*

	MEANS (STANDARD DEVIATIONS)	
	Affective commitment	Continuance commitment
25 years and younger	3.10 (.60)	4.29 (.76)
26 - 40 years	4.20 (.61)	4.35 (.92)
41 - 55 years	4.41 (.76)	4.80 (.91)
56 years and older	4.02 (.37)	5.29 (.84)

Note: N = 350

The pairwise comparison test in Table 6.23 revealed statistically significant differences in affective commitment levels across three different age groups (group 1: 25 years and younger and 26 – 40 years; group 2: 25 years and younger and 45 – 55 years; and group 3: 26 – 40 years and 41 – 55 years). However, the results of affective commitment are treated with caution owing to the low internal consistency reliability coefficient obtained for this subscale.

According to the results reported in Table 6.23 and 6.24, it was found that the age groups 25 years and younger and 26 to 40 years differed significantly in terms of their affective commitment. Moreover, detailed comparisons of the mean scores in Table 6.24, showed that those participants in the age group of 26 to 40 years obtained a significantly higher mean score ( $M = 4.20$ ) than those in the 25 years and younger age group, who obtained a mean score of 3.10 on affective commitment.

Table 6.23 also revealed significant differences between the age groups 25 years and younger and 41 to 55 years in terms of affective commitment. Further comparisons of the mean scores, showed that those participants in the age group of 41 to 55 years obtained a higher mean score ( $M = 4.41$ ) than the 25 years and younger age group, who obtained a mean score of 3.10 on affective commitment. Furthermore, Table 6.23 also reported significant differences between the age groups 26 to 40 years and 41 to 55 years regarding affective commitment. Comparing the mean scores in Table 6.24, the participants in the age group 41 to 55 years obtained a higher mean score ( $M = 4.41$ ) than the 26 to 40 age group, who obtained a mean score of 4.20 on affective commitment.

The pairwise comparison test in Table 6.23 revealed statistically significant differences in continuance commitment levels across four different age groups (group 1: 25 years and younger and 41 – 55 years; group 2: 25 years and younger and 56 years and older; group 3: 26 – 40 years and 41 – 55 years; and group 4: 26 – 40 years and 56 years and older). According to the results reported in Table 6.23, the age groups 25 years and younger and 26 to 40 years differed significantly in terms of their continuance commitment. Comparing the mean scores in Table 6.24, the participants in the age group 41 to 55 years obtained a higher mean score ( $M = 4.80$ ) than the 25 years and younger age group, who obtained a mean score of 4.29 on continuance commitment.

Table 6.23 revealed significant differences between the age groups 25 years and younger and 56 years and older in terms of continuance commitment. Comparing the mean scores, the participants in the age group of 56 years and older obtained a higher mean score ( $M = 5.29$ ) than the 25 years and younger age group, who obtained a mean score of 4.29 on continuance commitment. Furthermore, Table 6.23 reported significant differences between the age groups 26 to 40 years and 41 to 55 years in terms of continuance commitment. Comparing the mean scores in Table 6.24, the participants in the age group 41 to 55 years obtained a higher mean score ( $M = 4.80$ ) than the 26 to 40 years age group, who obtained a mean score of 4.35 on continuance commitment.

Moreover, Table 6.23 revealed significant differences between the age groups 26 to 40 years and 56 years and older in terms of continuance commitment. Comparing the mean scores in Table 6.24, the participants in the age group of 56 years and older obtained a higher mean score ( $M = 5.29$ ) than the 26 to 40 years age group, who obtained a mean score of 4.35 on continuance commitment.

#### *6.3.4.3 Age: Differences in terms of job embeddedness*

This section will discuss age and its differences in terms of participants' job embeddedness. Table 6.25 below provides a summary of the Kruskal-Wallis test on age and experiences of job embeddedness, specifically fit and sacrifice.

Table 6.25

*Kruskal-Wallis Test on Age and Fit, Sacrifice and Job Embeddedness (Age – Experiences of Job Embeddedness)*

	Standardised test statistics	
	Fit	Sacrifice
26 to 40 years and 25 years and younger	.89	2.37*
26 to 40 years and 41 to 55 years	-1.52	-2.18*
26 to 40 years and 56 years and older	-2.67**	-2.09*
25 years and younger and 56 years and older	-2.14*	-.99
Independent- samples Kruskal-Wallis test summary	9.05* (df: 3)	12.03** (df: 3)

Note: N = 350 \*\*\* $p \leq .001$ \*\* $p \leq .01$ \* $p \leq .05$

Table 6.26 below provides a summary of the means and standard deviations obtained for experiences of job embeddedness (fit and sacrifice) and age.

Table 6.26

*Means and Standard Deviations of Experiences of Job Embeddedness (Fit and Sacrifice) and Age*

	MEANS (STANDARD DEVIATIONS)	
	Fit	Sacrifice
25 years and younger	4.39 (1.15)	4.18 (.95)
26 to 40 years	4.25 (1.08)	3.84 (.96)
41 to 55 years	4.49 (.98)	4.16 (.95)
56 years and older	5.25 (.80)	4.55 (.85)

Note: N = 350

The pairwise comparison test in Table 6.25 revealed statistically significant differences in fit levels across two different age groups (group1: 26 – 40 years and 56 years and older; and group 2: 25 years and younger and 56 years and older).

According to the results reported in Table 6.25, the age groups 26 to 40 years and 56 years and older differed significantly in terms of their fit. Comparing the mean scores in table 6.26, the participants in the age group 56 years and older obtained a higher mean score ( $M = 5.25$ ) than the 26 to 40 years age group, who obtained a mean score of 4.25 on fit. Table 6.25 revealed significant differences between the age groups 25 years and younger and 56 years and older in terms of fit. Comparing the mean scores in Table 6.26, the participants in the age group of 56 years and older obtained a higher mean score ( $M = 5.25$ ) than the 25 years and younger age group, who obtained a mean score of 4.39 on fit.

The pairwise comparison test in Table 6.25 revealed statistically significant differences in sacrifice levels across three different age groups (group 1: 26 – 40 years and 25 years and younger; group 2: 26 – 40 years and 41 – 55 years; group 3, 26 – 40 years and 56 years and older). According to the results reported in Table 6.25, the age groups 26 to 40 years and 25 years and younger differed significantly in terms of their sacrifice. Comparing the mean scores in Table 6.26, the participants in the age group of 25 years and younger obtained a higher mean score ( $M = 4.18$ ) than the 26 to 40 years age group, who obtained a mean score of 3.84 on sacrifice.

Table 6.25 also revealed significant differences between the age groups 26 to 40 years and 41 to 55 years in terms of sacrifice. Comparing the mean scores in Table 6.26, the participants in the age group of 41 to 55 years obtained a higher mean score ( $M = 4.16$ ) than the 26 to 40 years age group, which obtained a mean score of 3.84 on sacrifice. Further, Table 6.25 revealed significant differences between the age groups 26 to 40 years and 56 years and older in terms of sacrifice. Comparing the mean scores in Table 6.26, the participants in the age group of 56 years and older obtained a higher mean score ( $M = 4.55$ ) than the 26 to 40 years age group, who obtained a mean score of 3.84 on sacrifice.

#### *6.3.4.4 Race: Differences in terms of organisational commitment*

This section will discuss race and its differences in terms of the participants' experiences of organisational commitment. Table 6.27 below provides a summary of the Kruskal-Wallis test on race and experiences of organisational commitment, specifically affective and continuance commitment.

Table 6.27

*Kruskal-Wallis Test on Race and Affective and Continuance Organisational Commitment (Race – Experiences of Organisational Commitment)*

	Standardised test statistics	
	Affective commitment	Continuance commitment
Indian-white	-2.29***	-1.50
Indian-other	-1.68	3.41***
African black-white	-3.54***	-.61
African-other	-1.62	-3.23***
Independent-samples Kruskal-Wallis test	18.14*** (df: 4)	13.01*** (df: 4)
summary		

Note: N = 350\*\*\*  $p \leq .001$ \*\* $p \leq .01$ \* $p \leq .05$

Table 6.28 below provides a summary of the means and standard deviations obtained for experiences of organisational commitment (affective and continuance commitment) and race.

Table 6.28

*Means and Standard Deviations of Experiences of Organisational Commitment (Affective Commitment and Continuance Commitment) and Race*

	MEANS (STANDARD DEVIATIONS)	
	Affective commitment	Continuance commitment
African black	4.13 (.67)	4.40 (.94)
Indian	4.10 (.50)	4.20 (.75)
White	4.39 (.56)	4.48 (.84)
Other	5.13 (-)	4.67 (-)

Note: N = 350

The pairwise comparison test in Table 6.27 revealed statistically significant differences in affective commitment levels across two different race groups (group 1: Indian-white; and group 2: African-white). However, the results of affective commitment should be treated with caution owing to the low internal consistency reliability coefficient obtained for this subscale. According to the results reported in Table 6.27, the race groups Indian-White differed significantly in terms of their affective commitment.

Comparing the mean scores in Table 6.28, the participants in the white race group obtained higher mean score ( $M = 4.39$ ) than the Indian race group, who obtained a mean score of 4.10 on affective commitment. Table 6.27 also highlights significant differences between the race groups African-white in terms of affective commitment. The race group African-white scored higher on affective commitment when compared to the Indian-white race group. Comparing the mean scores in Table 6.28, participants in the white race group obtained higher mean score ( $M = 4.39$ ) than the African race group, who obtained a mean score of 4.13 on affective commitment.

The pairwise comparison test in Table 6.27 revealed statistically significant differences in continuance commitment levels across two different race groups (group 1: Indian-other; and group 2: African-other). According to the results reported in table 6.27, the race groups Indian-other differed significantly in terms of their continuance commitment. Comparing the mean scores in table 6.28, the participants in the other race groups obtained a higher mean score ( $M = 4.67$ ) than the Indian race group, which obtained a mean score of 4.20 on continuance commitment.

Table 6.26 also revealed significant differences between the race groups African-other in terms of continuance commitment. Comparing the mean scores in Table 6.28, the participants in the other race group obtained a higher mean score ( $M = 4.67$ ) than the African race group, who obtained a mean score of 4.40 on its continuance commitment.

#### *6.3.4.5 Employment level: Differences in terms of sources of job stress*

This section will discuss employment level and its differences in terms of the participants' experiences of sources of work stress. Table 6.29 below provides a summary of the Kruskal-Wallis test on employment level and experiences of sources of work stress, specifically job security.

Table 6.29

*Kruskal-Wallis Test on Employment Level and Job Security (Employment Level-Experiences of Sources of Work Stress)*

<b>Standardised test statistics</b>	
<b>Job security</b>	
Executive level-upper administrative level	-2.42*
Executive level-administrative level	-2.37*
Executive level-middle management	-2.94**
Executive level-junior management	-2.70**
Independent-samples Kruskal-Wallis test summary	10.16** (df: 4)

Note: N = 350. Significant differences indicated by \*  $***p \leq .001$  \*\* $p \leq .01$  \* $p \leq .05$

Table 6.30 below provides a summary of the means and standard deviations obtained for experiences of sources of job stress (job security) and employment level.

Table 6.30

*Means and Standard Deviations of Experiences of Sources of Work Stress (Job Security) and Employment Level*

<b>MEANS (STANDARD DEVIATIONS)</b>	
<b>Job security</b>	
Executive level	3.24 (1.33)
Middle management	4.11 (1.15)
Junior management	4.09 (1.23)
Upper administrative level	3.88 (1.23)
Administrative level	3.93 (1.32)

Note: N = 350

The pairwise comparison test in Table 6.29 revealed statistically significant differences in job security levels across four different employment level groups (group 1: executive level and upper administrative level; group 2: executive level and administrative level; group 3: executive level and middle management; and group 4: executive level and junior management).

According to the results reported in Table 6.29, it was found that employment group 1, executive level and upper administrative level, demonstrated a significant difference according to job security. Comparing the mean scores in Table 6.30, participants with employment level (upper administrative) reported a higher mean value ( $M = 3.88$ ) than the executive employment level, who obtained a mean score of 3.24 on job security.

Table 6.29 also highlighted significant differences between the employment levels group 2, executive level and administrative level in terms of job security. Comparing the mean scores in Table 6.30, participants in employment group 2, administrative level reported higher mean value ( $M = 3.93$ ) than the executive employment levels, who obtained a mean score of 3.24 on job security. Table 6.29 reported significant differences between the employment levels group 3, executive level and middle management in terms of job security. Comparing the mean scores in Table 6.30, participants in employment level group 3, middle management obtained a higher mean value ( $M = 4.11$ ) than the executive employment levels, who obtained a mean score of 3.24 on job security. Furthermore, Table 6.29 showed significant differences between the employment levels group 4, executive level and junior management in terms of job security. Comparing the mean scores in Table 6.30, participants in employment group 4, junior management obtained a higher mean score ( $M = 4.09$ ) than the executive employment levels, who obtained a mean score of 3.24 on job security.

#### *6.3.4.6 Employment level: Differences in terms of organisational commitment*

This section will discuss employment level and its differences in terms of participants' experiences of organisational commitment. Table 6.31 below provides a summary of the Kruskal-Wallis test on employment level and experiences of organisational commitment, specifically continuance commitment.

Table 6.31

*Kruskal-Wallis Test on Employment Level and Continuance Organisational Commitment (Employment level- Experiences of Organisational Commitment)*

	<b>Standardised test statistics</b>
	<b>Continuance commitment</b>
Executive level-administrative level	-3.09**
Upper administrative level-administrative level	-2.82*
Independent-samples Kruskal-Wallis test summary	12.35*** (df: 4)

Note: N = 350. Significant differences indicated by \* - \*\*\* $p \leq .001$ \*\* $p \leq .01$ \* $p \leq .05$ .

Table 6.32 below provides a summary of the means and standard deviations obtained for experiences of organisational commitment (continuance commitment) and employment level.

Table 6.32

*Means and Standard Deviations of Experiences of Organisational Commitment (Continuance Commitment) and Employment Level*

	<b>MEANS (STANDARD DEVIATIONS)</b>
	<b>Continuance commitment</b>
Executive level	4.13 (1.07)
Upper administrative level	4.38 (.91)
Administrative level	4.78 (.88)

Note: N = 350

The pairwise comparison test in Table 6.31 revealed statistically significant differences in continuance commitment levels across two different employment levels groups (group 1: executive level and administrative level; and group 2: upper administrative level and administrative level). According to the results reported in Table 6.31, it was found that the employment group 1, executive level and administrative level demonstrated the most significant difference in terms of their continuance commitment. Comparing the mean scores in Table 6.32, participants on an administrative level obtained a higher mean score ( $M = 4.78$ ) than the executive employment level, who obtained a mean value of 4.13 on continuance commitment. Table 6.31 revealed significant differences between the employment levels group 2, upper administrative level and administrative level in terms of

continuance commitment. Comparing the mean scores in Table 6.32, participants in employment group 2, administrative level obtained a higher mean score ( $M = 4.78$ ) than the upper administrative employment level, who obtained a mean value of 4.38 on continuance commitment.

#### 6.3.4.7 Employment level: Differences in terms of attitudes towards change

This section will discuss employment level and its differences in terms of participants' experiences of attitudes towards change. Table 6.33 below provides a summary of the Kruskal-Wallis test on employment level and experiences of attitudes towards change, specifically cognitive and behavioural attitudes.

Table 6.33

*Kruskal-Wallis Test on Employment Level and Cognitive, Behavioural Attitudes towards Change (Employment level – Experiences of Attitudes Towards Change)*

	Standardised test statistics	
	Cognitive	Behavioural
Executive level-junior management	-2.55*	-2.19*
Executive level-administrative level	-2.73*	-3.75***
Middle management-Junior management	-2.16*	-1.22
Middle management-administrative level	-2.40*	-3.11**
Upper administrative level-administrative level	-2.13*	-3.13**
Independent-samples Kruskal-Wallis test summary	12.77*** (df: 4)	17.45*** (df: 4)

Note: N = 350. Significant differences indicated by \*: \*\*\* $p \leq .001$ \*\* $p \leq .01$ \* $p \leq .05$ .

Table 6.34 below provides a summary of the means and standard deviations obtained for experiences of attitudes towards change (cognitive and behavioural) and employment level.

Table 6.34

*Means and Standard Deviations of Experiences of Attitudes towards Change (Cognitive, Behavioural) and Employment Level*

	<b>MEANS (STANDARD DEVIATIONS)</b>	
	<b>Cognitive</b>	<b>Behavioural</b>
Executive level	2.81 (.84)	2.85 (.50)
Middle management	2.99 (.94)	3.05 (.69)
Junior management	3.41 (.88)	3.19 (.60)
Upper administrative level	3.13 (.89)	3.08 (.66)
Administrative level	3.42 (.89)	3.42 (.72)

Note: N = 350

The pairwise comparison test in Table 6.33 revealed statistically significant differences in cognitive attitudes across five different employment levels groups (group1: executive level and junior management; group2: executive level and administrative level; group 3: middle management and junior management; group 4: middle management and administrative level; and group 5: upper administrative level and administrative level).

According to the results reported in Table 6.33, employment level for group 1, executive level and junior management demonstrated a significant difference according to cognitive attitude towards change. Comparing the mean scores in Table 6.34, participants with the employment level, junior management, obtained a higher mean score ( $M = 3.41$ ) than the executive employment level, who obtained a mean score of 2.81 on cognitive attitudes towards change. Table 6.33 revealed significant differences between the employment level group 2, executive level and administrative level in terms of cognitive attitudes towards change.

Comparing the mean scores in Table 6.34, participants on employment group 2, administrative level obtained a higher mean score ( $M = 3.42$ ) than the executive level employment level, who obtained a mean score of 2.81 on cognitive attitudes towards change.

Table 6.33 indicates significant differences between the employment levels group 3, middle management and junior management in terms of cognitive attitudes towards change. Comparing the mean scores in Table 6.34, participants with employment level group 3, junior management showed a higher mean score ( $M = 3.41$ ) than the middle management employment level, who obtained a mean score of 2.99 on the cognitive attitudes towards change.

Furthermore, Table 6.33 showed significant differences between the employment levels group 4, middle management and administrative level in terms of cognitive attitudes towards change. Comparing the mean scores in Table 6.34, participants with employment group 4, administrative level obtained a higher mean score ( $M = 3.42$ ) than the middle management employment level, who obtained a mean score of 2.99 on cognitive attitudes towards change. Table 6.33 also indicated significant differences between the employment level group 5, upper administrative level and administrative level in terms of cognitive attitude towards change. Comparing the mean scores in Table 6.34, participants with employment group 5, administrative level obtained a higher mean score ( $M = 3.42$ ) than the upper administrative employment level, who obtained a mean value of 3.13 on cognitive attitude towards change.

The pairwise comparison test in Table 6.33 reveals statistically significant differences in behavioural attitudes towards change across four different employment levels groups (group 1: executive level and junior management; group 2: executive level and administrative level; group 3: middle management and administrative level; and group 4: upper administrative and administrative level). According to the results reported in Table 6.33, employment group 1, executive level and junior management demonstrated a significant difference in their behavioural attitude towards change. Comparing the mean scores in Table 6.34, participants on a junior management employment level obtained a higher mean score ( $M = 3.19$ ) than the executive level employment level, who obtained a mean value of 2.85 on behavioural attitude towards change.

Table 6.33 revealed significant differences between the employment level group 2 executive level and administrative level in terms of behavioural attitude towards change. Comparing the mean scores in Table 6.34, participants on an administrative employment level showed a higher mean score ( $M = 3.42$ ) than the executive level and above employment level, who obtained a mean score of 2.85 on behavioural attitude towards change.

Table 6.33 indicated significant differences between the employment levels group 3, middle management and administrative levels in behavioural attitude towards change. Comparing the mean scores in Table 6.34, participants in group 3, administrative level obtained a higher mean score ( $M = 3.42$ ) than the middle management employment level, who obtained a mean score of 3.05 on behavioural attitudes towards change.

Furthermore, Table 6.33 revealed significant differences between the employment levels group 4, upper administrative and administrative level in terms of behavioural attitude towards change. Comparing the mean scores in Table 6.34, participants on an administrative level obtained a higher mean score ( $M = 3.42$ ) than the upper administrative employment level, who obtained a mean score of 3.08 on behavioural attitudes towards change.

The results obtained for the tests for significant mean differences yielded partial supportive evidence for research hypothesis Ha5: The biographical variables (age, gender, race and employment level) functioned as significant moderating variables in the sources of work stress-attitudes towards change relationship, and differed significantly regarding their sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.

In summary, significant differences were observed between

- age and sources of job stress (job security and lack of job autonomy)
- age and organisational commitment (affective and continuance commitment)
- age and job embeddedness (fit and sacrifice)
- No significant differences were observed in terms of gender, sources of work stress, organisational commitment, job embeddedness and attitudes towards change.
- race and organisational commitment (affective and continuance commitment)
- employment level and sources of job stress (job security);
- employment level and organisational commitment (continuance commitment)
- employment level and attitudes towards change (cognitive and behavioural attitudes).

## **6.4 INTEGRATION AND DISCUSSION**

This section integrates the research results and discusses the results obtained for each of the research aims.

### **6.4.1 Biographical profile of the sample and frequencies**

The biographical profile showed that the main sample characteristics that needed to be deliberated in the interpretation of the empirical results were age, gender, race and employment level. The sample consisted predominantly of older participants aged between 26 and 40 years, male, African black, on an upper administrative level.

Moreover, the majority of the participants were in the establishment career phase. The findings of Coetzee and De Villiers (2010) showed that individuals in the establishment career phase tend to have a high need for employment stability and security. These findings were further emphasised by Coetzer and Rothmann (2007), who found that individuals in the establishment career phase need to know how organisational changes will impact on their careers and whether or not they have a future with the current organisation. In this regard, it can therefore be assumed that if the organisation can provide stability and security, individuals in the establishment career phase will thrive in the FMCG organisation. From the sample's predominant characteristics, it is apparent that the FMCG organisation has embedded fair representation of all race groups into the organisation, which is evident in the large representation of African black participants. Figure 6.7 below provides an overview of the sample profile predominant characteristics.

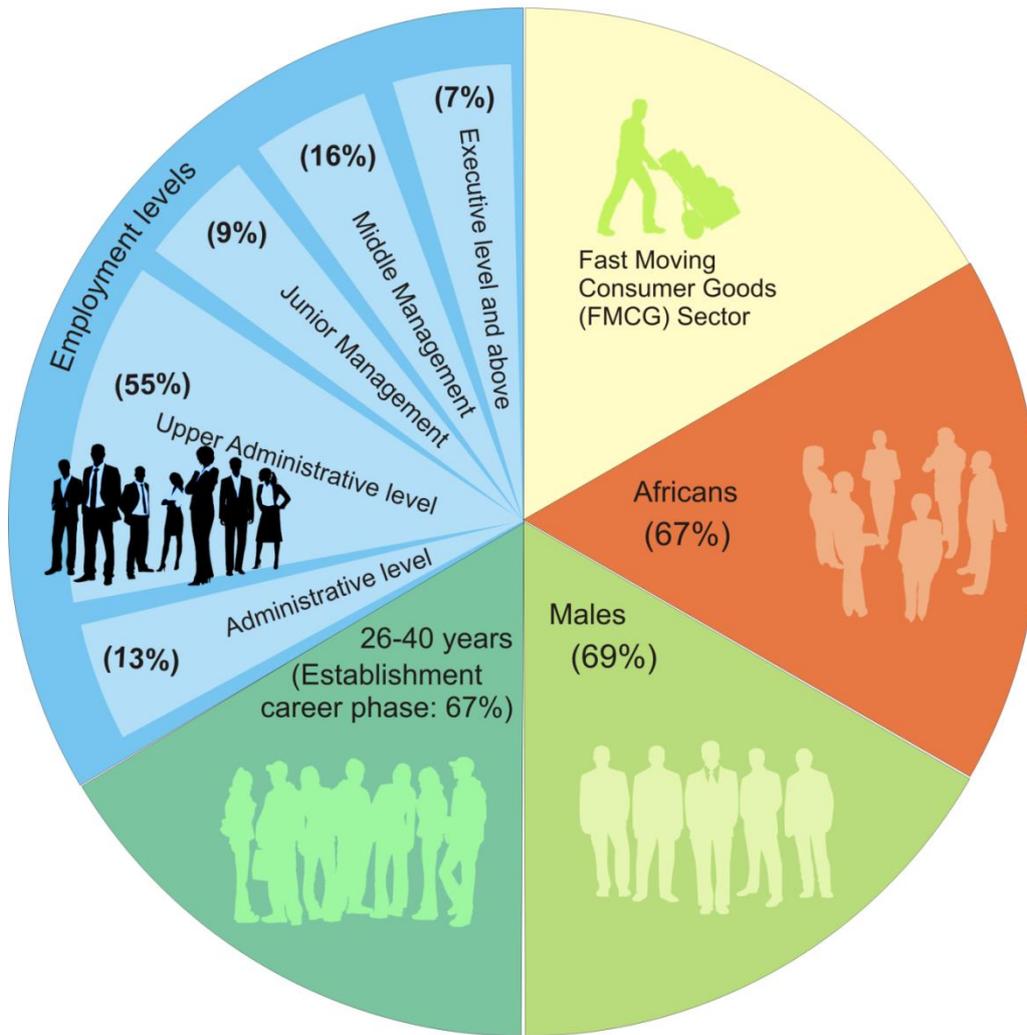


Figure 6.7. Sample profile predominant characteristics

#### 6.4.2 Descriptive statistics: Interpretation of the results (means)

This section discusses the interpretation of the means for the work stress profile of participants, the organisational commitment profile of participants, the job embeddedness profile of participants and the attitudes towards change profile of participants. Further, this section interprets the results reported in Tables 6.7 to 6.10.

#### 6.4.2.1 Work stress profile of participants

Table 6.7 is of relevance to this section.

At an *affective level*, the sources of work stress profile of the sample suggest that participants are concerned about *job security*. It is evident that job security constantly presents itself as a significant stressor to employees because they are confronted with ongoing change. Research by Van Vuuren (1990) showed that job security will present itself as a subjective experience by employees who tend to perceive the same situation in a different way. The findings of Coetzee and De Villiers (2010) indicated that when job security is a dominant source of stress for individuals, their level of energy is significantly lower, implying that their resilience and willingness to invest in their jobs will be lower as well. Moreover, job security concerns also suggest uncertainty with regard to the future of employees' careers and continuation of employment (Coetzee & De Villiers, 2010; Hellgren, Sverke, & Isaksson, 1999; Modrek & Cullen, 2013).

At a *cognitive level*, *career advancement and prospects* were also distinguished as another area of concern for participants. This was understandable because the majority of the participants were in the establishment phase of the careers and thus any perception of insecurity in terms of their careers would result in high levels of work stress experiences. Furthermore, Coetzer and Rothmann (2007) found that growth opportunities in an organisation are regarded as important job resources to an individual who is positively related to work engagement. The participants also seemed to regard *job role and ambiguity* as another significant source of work stress. It is apparent that owing to the ongoing change, participants in the organisation experienced higher levels of work stress, attributed to a lack of clarity in their role which may be hindering their performance (Cartwright & Cooper, 2002; Coetzee & De Villiers, 2010). Findings by Coetzee and De Villiers (2010) showed that when employees have clearer guidelines with regard to their jobs, they seem to be more engaged, experience higher levels of energy and exert more effort in their jobs.

At a *conative level*, participants also regarded the lack job autonomy as a significant source of work stress. The findings of Coetzee and De Villiers (2010) revealed that when employees do not experience a sense of autonomy on the job they will be less engaged. Mostert, Rothmann, Mostert & Nell (2008) and Coetzee and Rothmann (2005) lend support to this view, by revealing that employees who experience little or no job autonomy experience lower levels of organisational commitment and experience higher levels of work stress.

At an *interpersonal level*, relationships as a source of work stress were not a huge concern for participants. It is apparent that participants may have adequate relationships among their peers, supervisors and managers in the organisation.

Overall, the results from the predominant work stress profile show that participants regarded job security, career advancement, job role and ambiguity and job autonomy as significant sources of work stress, which led to higher levels of work stress experiences. Figure 6.8 provides an overview of the profile derived from the mean scores, which highlights the predominant sources of work stress.

#### 6.4.2.2 *Psychological attachment profile: Organisational commitment*

Table 6.8 is of relevance to this section.

At a *conative level*, the organisational commitment profile of the sample suggests that participants displayed high *continuance commitment*, with second highest *affective commitment* mind-sets. According to Meyer, Stanley; and Parfyonova (2012), these results imply a continuance commitment/affective commitment (CC/AC) dominant profile. CC has been linked to lack of employment alternatives and even non-transferability of skills (Meyer et al., 2002). In this regard, Becker (1960) suggested that continuance commitment develops when employees invest time in developing skills that make it more costly to leave the organisation. In terms of AC, Mowday, Porter, and Steers (1982) indicated that affective commitment is a more stable attitude, developing in part from a dispositional propensity to commit. Individuals with high continuance commitment mind-sets are more likely to remain with the organisation owing to the associated higher costs of leaving the organisation. Affectively committed individuals, however, may in fact choose to stay with the organisation which can be attributed to their feelings or emotional link towards the organisation. Overall, the strong CC and less strong AC profile suggest that participants' mind-sets might be experienced as indebted obligation to the organisation (Gellatly, Hunter, Currie, & Irving, 2009; Meyer et al., 2012; Meyer & Herscovitch, 2001). The results should be interpreted with caution because of the low internal consistency reliability of the affective commitment subscale.

At a *cognitive level*, participants displayed low normative commitment mind-sets (NC). Wiener (1982) suggested that NC develops principally as a function of socialisation forces presumably designed and intended to create stability. Participants with low normative commitment mind-sets are less obligated to remain with the organisation. According to

Meyer and Herscovitch (2001), least desirable outcomes are anticipated for uncommitted employees (all components: AC, CC, NC low) or those whose profile is dominated by strong CC. In this regard, the organisation should invest in resources to obtain optimal commitment profiles among its employees. Figure 6.8 provides an overview of the means profile.

#### 6.4.2.3 Psychological attachment profile: Job embeddedness

Table 6.9 is of relevance to this section.

At an *interpersonal level*, the participants displayed high levels of job embeddedness (links). This implies that participants had positive perceptions of their links to the organisation. Links are characterised as formal or informal connections between the participant and organisation or other people in the community (Mitchell et al., 2001). It is suggested that the higher the number of connections or links between the participant and the organisation or community, the more the participant is bound to the job and the organisation or community (Mitchell et al., 2001). Moreover, participants displayed a high fit to the organisation. Fit has been defined as the employee's perceived compatibility with an organisation and the environment (Mitchell & Lee, 2001). High levels of fit imply that because individuals perceive their goals as being congruent with those of the organisation, they feel more embedded in the organisation (Mitchell & Lee, 2001).

At a *cognitive level*, participants' perceptions of sacrifice were low. Sacrifice refers to the perceived cost of material or psychological benefits that may be forfeited by leaving one's job or community (Mitchell et al., 2001). Low sacrifice perceptions would imply that individuals do not feel that they have a lot to give up should they decide to leave the organisation in terms of their material or psychological benefits.

Overall, the results from the job embeddedness profile show that participants had high levels of fit and they linked embeddedness and low sacrifice embeddedness. Figure 6.8 provides an overview of the means profile.

#### 6.4.2.4 Attitudes towards change profile

Table 6.10 is of relevance to this section.

At a *cognitive level*, the attitudes towards change profile of the sample suggested that participants did not strongly support change at a cognitive level. In other words, they did not display strong positive cognitions towards change. Participants did not see the benefit of the change, and were thus not open to supporting the change.

At an *affective level*, participants did not strongly support the change. In other words, they did not appraise the change as positive, as positive feelings towards the change were not displayed. When individuals have negative feelings of sadness, anger, fear or frustration because they perceive an adverse impact of change on their jobs, it is expected that they would show a non-supportive attitude to organisational change (El-Farra & Badawi, 2012).

At an *interpersonal level*, participants did not strongly support the change. In other words, they did not display positive behavioural attitudes towards the change. Behavioural attitudes towards change are important because when individuals display negative behaviours, they are most likely not to support the change (El-Farra & Badawi, 2012; Fugate et al., 2012).

Overall, the results from the attitudes towards change profile show that the means were mid-range meaning the participants did not strongly support the change and did not see benefit from the change clearly. Figure 6.8 provides an overview of the means profile.

#### 6.4.2.5 Main findings

In terms of the main findings, job security, career advancement and prospects, job role and ambiguity and lack of job autonomy were found as predominant sources of work stress, which resulted in higher levels of work stress experiences for participants. In terms of organisational commitment, participants displayed high continuance commitment, with second highest affective commitment mind-sets. Participants also displayed low normative commitment mind-sets. Overall, the commitment mind-set (AC, CC, NC) was not optimal (Meyer et al., 2012; Meyer & Herscovitch, 2001). In terms of job embeddedness, participants displayed high levels of fit and links embeddedness and low sacrifice embeddedness. Lastly, in terms of attitudes towards change, participants did not strongly support the change on an affective, cognitive and behavioural level.

### 6.4.2.6 Counter-intuitive findings

Relationships as a source of work stress for participants were low. It is assumed that change may impose a threat to current relationships in the organisation, and would therefore be a significant source of work stress.

Figure 6.8 provides a summary of the means profile.

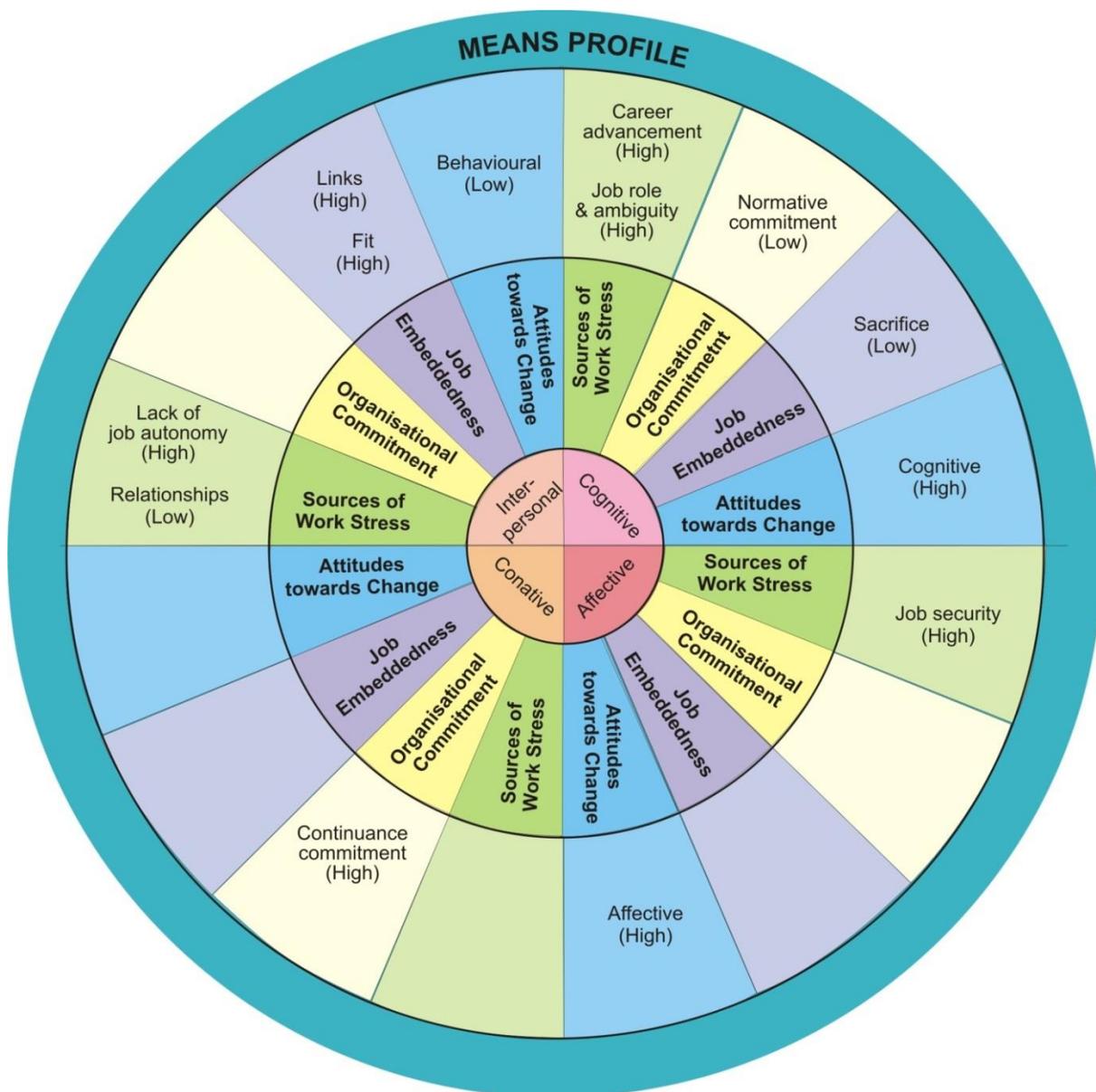


Figure 6.8. Summary of the means profile

### **6.4.3 Empirical research aim 1: Interpretation of the results (correlations)**

Table 6.11 is applicable to this section.

Research aim 1 was to assess the empirical inter-relationships between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change as displayed in a sample of respondents in the South African FMCG context.

#### *6.4.3.1 Relationship between sources of job stress and organisational commitment*

The positive relationships between sources of work stress, affective and continuance commitment suggest that participants who are somewhat affectively and continually committed to the organisation are likely to experience lower levels of work stress (Vakola & Nikolaou, 2005; Meyer & Allen, 1997). Participants may remain with the organisation because they are aware of the associated costs affiliated with leaving the organisation and may have an emotional link to the organisation. These findings are consistent with the research conducted by Coetzee and Rothmann (2005), Coetzee and De Villiers (2010), Dahl (2010), Tiwari and Mishra (2008) and Vakola and Nikolou (2005).

The results also showed a negative relationship between sources of work stress and normative commitment. Participants who experience higher levels of work stress may likely feel less obligated to remain with the organisation, as they may feel as if they have a lack of alternatives with the uncertainty imposed by change (Dahl, 2010; Khatibi, Asadi, & Hamidi, 2009; Visagie, 2010).

Moreover, positive relationships were observed between job role and ambiguity and organisational commitment (affective and continuance commitment). It appears that there may be vague direction or clarity in terms of the job which could be attributed to change in the organisation. Participants who were highly affectively and continually committed appeared to also experience job role and ambiguity as a higher source of work stress. Previous research has indicated job role and ambiguity as a common source of work stress and they are anticipated to have an impact on the employees' engagement and well-being in the workplace, which may account for the higher levels of work stress and experiences of affective and continuance commitment (Cartwright & Cooper 2002; Coetzer & Rothmann 2007).

Malik, Nawab, Naeem, and Danish (2010) also found that more role clarity, guidance and supervision in terms of the job role had a significant and positive influence on an employee's organisational commitment.

There was also a positive association between relationships and continuance commitment. Participants who had high levels of continuance commitment (associated higher costs of leaving the organisation) were also likely to experience relationships as a high source of work stress. It seems that should participants decide to leave the organisation, there would be loss of current relationships in the organisation, which may be valued. Tamer and Dereli (2014) suggested that relationships, specifically peer support in the organisation are strongly related to employees' organisational commitment. However, the negative association between relationships, career advancement and normative commitment suggests that although good relationships in the organisation may exist, they may not determine the extent to which participants feel obliged to remain with the organisation. In the context of organisational change, individuals may be confronted with alternatives to choose from in terms of their careers, and as such will need to make decisions that will be best suited for them (Bashir & Ramay, 2008).

Furthermore, positive associations were observed in terms of job security, lack of job autonomy and organisational commitment (affective and continuance commitment). It is apparent that when organisations transition through change, job security and lack of job autonomy become imminent. As such, the organisation's capacity to address these job-related factors as core sources of work stress may lead to more committed individuals, affectively and continually (Galletta, Portoghese, & Battistelli, 2011; Kalyal, Berntson, Baraldi, Näswall, & Sverke, 2010). Negative associations were observed between job security, lack of job autonomy and normative commitment. It seems that when individuals are faced with job insecurity and a lack of autonomy, it is probable that they may feel less obligated to remain with the organisation (Parkes, 2014).

#### *6.4.3.2 Relationship between sources of job stress and job embeddedness*

The results suggested negative associations between sources of work stress (job role and ambiguity, relationships, job tools and equipment, career advancement and prospects, job security and lack of job autonomy) and job embeddedness (fit and sacrifice). It is apparent that when the organisation embarks on change, there will be an impact on individuals' work-related stress, which is likely to have negative outcomes for their perceptions of job embeddedness, which implies that they are likely to be less embedded in the organisation.

As such, organisations seeking to implement change need to consider its implications on individuals' experiences of work stress emanating from core job-related factors such as job role and ambiguity, relationships, job tools and equipment, career advancement and prospects, job security and lack of job autonomy and seek to manage this upfront in the change process (Coetzee & De Villers, 2010; Vakola & Nikolaou, 2005). Moreover, new structures, jobs and culture should attempt to align individuals' perception of fit and sacrifice, and by implication keep them embedded in the organisation by addressing their work-related stress (Holtom et al., 2006; Karatepe & Ngeche, 2012; Mitchell et al., 2001; Yoon & Kim, 2010).

#### *6.4.3.3 Relationship between sources of job stress and attitudes towards change*

The results suggested positive associations between sources of work stress (job role and ambiguity, relationships, job tools and equipment, career advancement and prospects, job security and lack of job autonomy) and attitudes towards change (affective, cognitive and behavioural). It is apparent that high levels of work stress experienced are likely to impact the participants' attitudes towards change. Change interventions that seek to alleviate work-related stressors (reducing threat) may help to increase individuals' openness towards the change. Practitioners need to seek ways to manage the work-related stressors. Vandenberghe, Panaccio, Bentein, Mignonac, and Roussel (2011) and Yousef (2000) found that in the case of job role and ambiguity as a stressor, there is an impact on the individual's receptiveness towards change. Vakola (2011) also found that employees inherently have a need to see the benefit of change (e.g. career opportunities), which may affect attitudes towards change. These examples signal the need to manage stressors in the change management agenda, which, in turn, will promote positive attitudes towards the change. Individuals through their evaluative process of the change need to see the benefit of the change, which will assist with the formation of positive cognitions and behaviours towards the change being implemented.

#### *6.4.3.4 Relationship between psychological attachment variables: Job embeddedness and organisational commitment*

The results showed a positive association between job embeddedness and organisational commitment (normative commitment). This result provides supportive evidence to the finding that individuals' psychological attachment to the organisation is accounted for by their commitment and embeddedness perceptions which they have towards the organisation (Ferreira & Coetzee, 2013; Ferreira & Coetzee, 2014; Mitchell et al., 2001; Mitchell & Lee, 2001). The higher the fit, sacrifice and links an individual has towards the organisation the greater the embeddedness the individual has in the organisation (Holtom et al., 2006). Similarly, an individual with higher affective, continuance and normative commitment will have higher commitment levels in the organisation. Thus, individuals with higher embeddedness and commitment may be more likely to put in extra effort and remain with the organisation (Holtom et al., 2006; Valoka & Nikolaou, 2005).

#### *6.4.3.5 Relationship between job embeddedness and attitudes towards change*

The results showed that significant negative associations exist between job embeddedness and attitudes towards change (affective, cognitive and behavioural). It is apparent that individuals with lower job embeddedness perceptions of the organisation may become less supportive of change, thus displaying negative attitudes towards the change. On the other hand, individuals with high perceptions of their fit to the organisations goals and values may strive to enhance their fit through being open towards the change and seeking alignment of fit to new organisational structures or culture.

#### *6.4.3.6 Relationship between organisational commitment and attitudes towards change*

In terms of organisational commitment, continuance commitment and attitudes towards change (cognitive and behavioural) showed a positive relationship. It seems that through positive associations of material or psychological benefits individuals have towards the organisation, the more likely they are to display openness to change, which in turn promotes positive attitudes towards change. As such, organisations seeking to implement change need to make an effort to assist individuals to remain committed to the organisation (Nafei, 2014; Vakola & Nikolaou, 2005). Loyal and committed employees are more likely to expend effort in the organisation, and thus remain with the organisation (Bennett & Durkin, 1999; Mitchell & Lee, 2006).

6.4.3.7 *Relationship between the control variables (age, gender, race and employment level), the sources of job stress, job embeddedness, organisational commitment and attitudes towards change*

(a) *Age*

A positive correlation was evident between age and sources of work stress variables, specifically job security and lack of job autonomy. Moreover, the findings also indicated a positive relationship between age and organisational commitment, specifically affective and continuance commitment. Age and links in terms of an employee's job embeddedness shared a positive relationship. A negative relationship was observed between age and behavioural attitudes towards change. This finding suggests that age may be an important factor to be considered when managing work stress, organisational commitment, job embeddedness and attitudes towards change.

(b) *Gender*

In terms of gender, a significant negative relationship was observed with regard to an employee's job embeddedness (links, fit and sacrifice). A negative relationship was also evident between gender and organisational commitment (normative commitment). These findings show that gender should be considered when managing an individual's psychological attachment (organisational commitment and job embeddedness).

(c) *Race*

Race and affective commitment showed a positive relationship and should thus be taken into consideration.

(d) *Employment level*

The results showed a positive relationship between employment level and attitudes towards change, specifically cognitive and behavioural attitudes. This result implies that employment level may in fact be a determining factor to a participant's attitude towards change.

#### 6.4.3.8 *Significant findings: Synthesis*

In terms of significant findings, positive relationships were observed between sources of work stress (job security, lack of job autonomy) affective and continuance commitment. A positive association was also observed between relationships and continuance commitment. Negative relationships were found between sources of work stress (job security, lack of job autonomy) and normative commitment. These significant relationships observed between sources of work stress and organisational commitment suggest the need for change practitioners to manage job-related aspects of sources of work stress and generally suggesting ways to keep individuals committed to the organisation. When sources of work stress and organisational commitment are managed during the change process, it is probable that individuals will be more open and supportive to the change being implemented.

The results also suggested negative associations between sources of work stress (job role and ambiguity, relationships, job tools and equipment, career advancement and prospects, job security and lack of job autonomy) and job embeddedness (fit and sacrifice). The relationships observed between sources of work stress and job embeddedness suggest that organisations embarking on change should consider sources of work stress and their influence on the perceptions of job embeddedness among individuals. As such, when these elements (sources of work stress and job embeddedness) are managed upfront in the change process, it is likely that individuals will be more open to change initiatives. Similarly, the results suggested positive associations between sources of work stress (job role and ambiguity, relationships, job tools and equipment, career advancement and prospects, job security and lack of job autonomy) and attitudes towards change (affective, cognitive and behavioural).

It is apparent that sources of work stress are related to an individual's attitudes towards change, which, in turn, influence whether or not the individual will support or resist the changes being implemented. Positive associations between job embeddedness and organisational commitment (normative commitment) were also found. As such, it is apparent that individual's psychological attachment is explained by their commitment and embeddedness mindsets, because such higher levels of commitment and embeddedness will keep individuals attached to the organisation, even during turbulent times.

This implies that change practitioners, in their endeavour to manage change, need to be mindful of individuals' commitment and embeddedness mind-sets and strive to enhance them. Significant negative associations were observed between job embeddedness and attitudes towards change (affective, cognitive and behavioural). Moreover, in terms of organisational commitment, continuance commitment and attitudes towards change (cognitive and behavioural) positive relationships were found. It is clear that organisational commitment and job embeddedness have an influence on individuals' attitudes towards change. Lastly, the biographical factors, age, gender, race and employment level need to be considered in the change management process because they may influence the sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.

#### *6.4.3.9 Non-significant findings*

In terms of the findings, no significant relationships were found between sources of job stress (relationships, job tools and equipment) and total organisational commitment. Also, in terms of sources of work stress (job security, lack of job autonomy) and links, no significant relationship was evident. Previous research has found that when an individual experiences high levels of sources of work stress this is likely to impact the individual's psychological attachment (organisational commitment and job embeddedness) (Coetzee & De Villiers, 2010; Mitchell et al., 2001; Vakola & Nikolaou, 2005).

#### **6.4.4 Research aim 2: Interpretation of the results (canonical correlations)**

Tables 6.12 and 6.13 and Figure 6.1 are applicable to this section.

Research aim 2 was to assess the overall statistical relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. Overall, the results suggest that sources of work stress (lack of job autonomy, job security and job role and ambiguity) significantly contributed to explaining the participants' attitudes towards change (affective, cognitive and behavioural attitudes towards change). The cognitive and behavioural attitudes towards change variables displayed a higher positive degree of association with sources of work stress, while affective attitudes towards change displayed a lower degree of association with sources of work stress.

Lack of job autonomy was significant for participants going through change in the organisation. When participants perceive they have little or no job autonomy, this is more likely to influence their attitudes towards change negatively. In this regard, managers need to display trust, remain less controlling and allow for autonomy on the job (Gagné & Bhave, 2011; Vakola & Nikolaou, 2005).

The results further suggested that job security positively influenced participants' attitudes towards change (affective, cognitive and behavioural attitudes towards change). When participants perceive a sense of job security in an organisation, this may influence their affective, cognitive and behavioural attitudes towards change (Erwin & Garman, 2010; Lewis, 2011; Mellor et al., 2011; Vakola & Nikolaou, 2005). Also, job role and ambiguity were another significant source of work stress. The participants displayed a need for job role clarity which may affect their performance in the organisation. Since the majority of the sample were in the establishment career phase, job role and ambiguity would be a concern if not managed well as these participants aspire to succeed in the organisation. Further, owing to intensified competition in the FMCG sector, more pressure is put on participants to perform optimally. Hence job role clarity needs to be managed in the change process (Burke & El-Kot, 2010; Coetzee & De Villiers, 2010). It was also found that if job role and ambiguity as a stressor are considered upfront and managed during times of change, it will lead to higher levels of engagement – engaged employees are an asset to any organisation (Burke & El-Kot, 2010; Coetzee & De Villiers, 2010).

Overall, it appears from the findings that managing participants' sources of job stress (lack of job autonomy, job security and job role and ambiguity) are important because this may positively influence their attitudes towards change (affective, cognitive and behavioural). This finding is consistent with the research of Vakola and Nikolaou (2005). Psychological attachment (fit and sacrifice embeddedness) has also contributed in negatively influencing attitudes towards change and sources of work stress of participants. Higher levels of fit and sacrifice, in terms of a participant's job embeddedness, contribute to engagement and retention during organisational change, which may lead to lower levels of work stress experiences (Hernandez, Stanley, & Miller, 2014; Vakola & Nikolaou, 2005). Thus, if participants perceive a higher fit with the organisation or new organisational structures, they are more likely to stay engaged and remain with the organisation. Furthermore, if they perceive higher psychological or material benefits associated with leaving the organisation, they may decide to remain with the organisation despite the ongoing change (Hasmi, Gross, & Scott-Young, 2013; Jiang et al., 2012; Karatepe & Ngeche, 2012).

#### 6.4.4.1 *Main findings: Synthesis*

In terms of the main findings, sources of work stress (lack of job autonomy, job security, job role and ambiguity) positively contributed to influencing participants' attitudes towards change. An individual's fit and sacrifice embeddedness will also positively influence sources of work stress and attitudes towards change experiences. As such, organisations need to remain cognisant of the effects that work stress and job embeddedness will have on influencing individuals' attitudes towards the change. Addressing these job-related factors may encourage individuals to engage in change more positively.

#### 6.4.4.2 *Counter-intuitive findings*

Organisational commitment did not influence sources of work stress and attitudes towards change among participants. Previous research has shown that organisational commitment may in fact play an important role in the stress and attitudes towards change relationship (Vakola & Nikolaou, 2005).

#### **6.4.5 Research aim 3: Interpretation of the results (mediation modelling)**

Research aim 3 was to assess whether psychological attachment (organisational commitment and job embeddedness) significantly mediates the relationship between experiences of sources of work stress and attitudes towards change.

The results obtained only yielded partial support for the research hypothesis that assumed higher levels of experiences of sources of work stress relate to more positive attitudes towards change through higher levels of psychological attachment (organisational commitment and job embeddedness). It was found that job embeddedness only mediated the relationship between job stress and attitudes towards change such that high experiences of work stress are negatively associated with job embeddedness which, in turn, is associated with positive attitudes towards change. Organisational commitment is not likely to influence the relationship between experiences of job stress and attitudes towards change.

In addition, the results support the theoretical assumption that attitudes towards change are important outcomes when designing change interventions because they influence whether or not individuals will support or resist the change being implemented, thus affecting the success of the change (Choi, 2011; Vakola & Nikolaou, 2005).

Organisations need to take time to assess and understand attitudes towards change (cognitive and behavioural) and subsequently incorporate strategies to manage these in the change management agenda. When an individual is faced with change, a cognitive evaluation will take place. If the individual evaluates the change as positive, then positive cognitions will be formed, which will allow for the development of positive behaviours towards the change (behavioural attitudes). When positive attitudes towards change are created pertaining to the change process, there will be readiness and buy-in to the change being implemented, thus promoting successful outcomes for the organisation (Bordia et al., 2011; Lau & Woodman, 1995; Yousef, 2000).

As further suggested by the findings, attitudes towards change are affected by an individual's psychological attachment (fit and sacrifice embeddedness). When an individual has low job embeddedness in the organisation, this will have a direct positive effect on attitudes towards change. As such individuals with low job embeddedness will strive to embrace change in the organisation. On the other hand individuals with high job embeddedness are likely to have more negative attitudes towards change. The results also showed that higher levels of experiences of sources of work stress will influence job embeddedness negatively. Organisations therefore need to incorporate stress management into the change strategy and seek ways to reduce stress for employees, thus allowing for the development of strengthened job embeddedness. These findings are generally aligned to the observations made in canonical correlation analyses.

#### *6.4.5.1 Main findings*

Overall, the main findings showed that job embeddedness mediated the relationship between job stress and attitudes towards change such that high experiences of work stress are negatively associated with job embeddedness which, in turn, is associated with positive attitudes towards change. It appears from the results that rapid, continuous change has resulted in higher levels of work stress experiences which have led to less embedded staff. The organisation could improve the outcomes of change by managing sources of work stress in the organisation. Proper communication, engagement, training, development and transparency will assist individuals to manage the unknown, which may lead to lower work stress experiences in the organisation. As such, low job embeddedness may result in a stronger desire to move towards supporting organisational change. Change practitioners need to focus considerably more attention on job-related factors that influence the way individuals engage in change initiatives.

#### 6.4.5.2 *Counter-intuitive findings*

Because positive associations between organisational commitment and job embeddedness were established, it was anticipated that both organisational commitment and job embeddedness might mediate the sources of work stress and attitudes towards change relationship. Conversely, it was found that organisational commitment did not mediate the relationship between experiences of work stress and attitudes towards change. Employees are apprehensive about the loss of resources. When change imposes a threat to the employee, he or she will assess (appraise) the situation of whether or not the changes can be dealt with by investing personal resources, that is, psychological attachment (organisational commitment and job embeddedness). An individual's psychological attachment has been found to act as a mediator or personal resource to the employee (Hobfall, 1989; Lazarus & Folkman, 1989; Mitchell et al., 2001; O'Reilly & Chatman, 1986).

#### **6.4.6 Research aim 4: Interpretation of the results (hierarchical moderated regression)**

Tables 6.17, 6.18, 6.19 and 6.20 are applicable to this section.

Research aim 4 was to assess whether the biographical variables (age, gender, race and employment level) significantly moderate the relationship between sources of work stress and attitudes towards change.

##### *6.4.6.1 Interpretation of the moderated regression analysis*

###### *(a) Age*

The results showed that age and relationships acted as significant predictors of behavioural attitudes. Younger participant's relationships and behavioural attitudes were higher when compared to older participants. This implies that younger individuals tend to favour relationships and are more likely to behave positively towards change in the organisation, when compared to older employees. Interestingly, age also acted as a significant moderator in the relationship between career advancement prospects and behavioural attitudes. This suggests that younger individuals have a stronger need for career advancement and prospects and when these opportunities exist in the organisation, the individual will behave more favourably towards the change when compared to older employees.

These research findings are consistent with the findings of Niessen et al. (2010), who reported that younger employees will be more likely to support change in the organisation when compared to older employees. Older employees will be more likely to resist change, as change will be seen as life altering for them. Younger employees will be more likely to support change as through their relationships they will be more likely to draw strength to assist them during the transition. Moreover, they are more open to changes owing to career opportunities that may exist for them. The majority of participants in this research were aged between 26 and 40 years, and it is therefore clear from the results that younger participants will be open to change provided that they can see individual benefits such as relationships, career opportunities or promotions. If these relationships or opportunities do not exist or are not communicated upfront during the change, this will influence their attitudes towards the change, specifically behavioural attitudes (Cooren et al., 2011; Qian & Daniels, 2008; Vakola & Nikolaou, 2005). There is also a greater likelihood that these employees will seek alternatives or even leave the organisation (Cooren et al., 2011; Qian & Daniels, 2008; Vakola & Nikolaou, 2005).

*(b) Gender*

In terms of gender, the results suggested that for males, the relationship between their job role and ambiguity as a source of job stress and attitudes behaviour were higher when compared to females. This implies that males experienced a greater sense of job role and ambiguity, which led to them behaving negatively towards the change (Vakola & Nikolaou, 2005). Gender was found to moderate the relationship between job tools and equipment (as a source of job stress) and behavioural attitudes. This suggests that for males, their job tools and equipment and behavioural attitudes were higher compared to females. Males attached more meaning to job tools and equipment as a source of job stress which led to them behaving unfavourably towards the change. The majority of the participants in the research were male, implying that during the changes, males felt that they were underequipped with the correct tools to perform their roles. This could be that job tools and equipment adequately exist in the organisation, but employees may not have been exposed to these tools and equipment or it could be that they have not been trained properly. It is therefore imperative that change practitioners bear this in mind and ensure that proper communication and training are in place (Conway & Monks, 2008).

(c) *Race*

In terms of the results, race did not act as a significant moderator in the relationship between sources of job stress and attitudes towards change. Previous research showed that there are significant differences between the sources of work stress and race groups in South Africa. White employees find that workload is a significant source of work stress when compared to African black employees. African black employees found that compensation, benefits, lack of leadership, managed support, guidance and career advancement prospects were more significant in terms of sources of work stress (Coetzee & De Villiers, 2010).

(d) *Employment level*

In terms of the results, employment level did not act as a significant moderator in the relationship between sources of job stress and attitudes towards change. Previous research showed that there are differences between employment level and work stress. Senior employees were found to be more stressed, and this was attributed to higher workload and demands (Dua, 1996; O'Neill & Davis, 2011; Winter et al., 2000).

6.4.6.2 *Main findings*

In terms of the moderated regression analysis, only age and gender were found to moderate the relationship between sources of work stress and attitudes towards change. Age specifically moderated the relationship between career advancement, relationships and behavioural attitudes towards change. This implies that the organisation needs to remain cognisant that younger participants will require more focused approaches in terms of how the change will impact their careers and current relationships in the organisation. If this is properly managed, it is likely that they will display positive behavioural attitudes towards change. Moreover, gender moderated the relationship between job role and ambiguity, job tools and equipment and behavioural attitudes towards change. Organisations need to tailor their approach when managing these sources of work stress (job role and ambiguity, job tools and equipment) for males because this will influence their behavioural attitudes towards change.

#### **6.4.7 Research aim 5: Interpretation of the results (tests for significant mean differences)**

Tables 6.21 to 6.34 are applicable to this section.

Research aim 5 was to assess whether the biographical variables (age, gender, race and employment level) that functioned as significant moderating variables in the sources of work stress-attitudes towards change relation differ significantly regarding their sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.

##### *6.4.7.1 Interpretation of the tests for significant mean differences*

###### *(a) Age: Differences in terms of sources of job stress*

The results showed that participants older than 25 years revealed higher levels of job security concerns in the organisation. These participants would have a longer tenure and experience in the organisation, thus being more settled in their roles. The change that presents itself in the organisation is seen as a threat to these participants that would disrupt their lives both at work and home, thus causing high levels of stress. Moreover, older participants would be more anxious about securing employment should the current employment relationship be terminated.

In addition, the results suggested that participants older than 25 years also demonstrated concerns around lack of job autonomy. Since these participants are likely to have more experience in their job role, micro-management or increased supervision would cause higher stress for these participants. Research has shown that when participants have greater job autonomy through being given more freedom in how they perform their job roles, they will go the extra mile in performing their tasks, thus enhancing performance and productivity, and furthermore develop positive attitudes towards the change (Kim et al., 2011; Vakola & Nikolaou, 2005). Research by Ng and Feldman (2014) found that job autonomy when established will have more positive effects on older employees as compared to younger employees whose primary interest is knowledge acquisition and career development opportunities.

Change practitioners and organisational psychologists in the organisation need to be mindful of this and put in place interventions to assist older participants adapt to the changes, thus providing communication around job security and its potential impact, along with alternatives for the participant to consider. Moreover, redesigning jobs to accommodate job autonomy for older employees will allow for more positive attitudes towards the change.

*(b) Age: Differences in terms of organisational commitment*

The results revealed that participants older than 25 years demonstrated significant differences in terms of their affective commitment when compared to their younger counterparts. This finding is consistent with the research conducted by Ferreira and Coetzee (2010), who found that older participants revealed higher levels of affective commitment when compared to younger participants. According to Meyer and Allen (1991), participants tend to develop stronger affective commitment when their experiences in the organisation are aligned with their expectations and when their basic needs are fulfilled; thus older participants are more likely to have their expectations and basic needs fulfilled. Younger participants may be more aspirational, their expectations continuously change and they are always exploring new career opportunities – hence their affective commitment will be lower. Similarly, participants older than 25 years showed higher levels of continuance commitment when compared to younger employees (younger than 25 years). According to Becker (1960), continuance commitment develops as participants identify the accumulated benefits and costs should they decide to leave the organisation. Benefits may include a retirement fund or car allowance, depending on the organisation's benefit structures.

Older participants are more likely to associate higher benefits and costs should they decide to leave the organisation. By contrast, younger participants may associate lower benefits and costs to the organisation, thus being more open to exploring career opportunities outside of the organisation.

*(c) Age: Differences in terms of job embeddedness*

The results showed that participants aged 26 to 40 years and 56 years and older demonstrated a higher fit in terms of their job and organisation when compared to their counterparts. The higher fit demonstrated by these participants could indicate that they feel personally and workwise aligned to the organisation, which could mean they will be more likely to remain with the organisation (Mitchell et al., 2001).

Moreover, participants aged 25 years and younger also showed high levels of fit with the organisation. These participants are in the early stages or establishment phase of their careers, and the higher fit could be attributed to perceived career opportunities that exist in the organisation for them. Moreover, their personal values align with the organisation's values (Mitchell et al., 2001; Schreuder & Coetzee, 2011). Participants aged 26 to 40 years and 25 years and younger showed higher sacrifice levels when compared to their counterparts. This result suggests that these participants feel that should they decide to leave the organisation, the perceived cost of material or psychological benefits would be higher, which could imply that the participants may remain with the organisation (Mitchell et al., 2001). These participants are aspirational in terms of their career and if the organisation provides them with these opportunities, they would experience a higher fit with the organisation. Similarly, participants aged 41 to 55 years also showed higher levels of sacrifice. These participants are well established in the organisation, may have the experience and tenure, and leaving the organisation would thus imply giving up on all the psychological or material benefits.

*(d) Race: Differences in terms of organisational commitment*

African, white participants and Indian showed higher levels of affective commitment to the organisation. This suggests that both are equally committed to the organisation. In South African, since the inception of democracy, organisations may continually seek opportunities to eliminate inequalities – hence both African black, Indian and white participants see the benefits of this and thus show higher affective commitment levels when compared to their counterparts. These findings are consistent with the findings by Martin and Roodt (2008) who reported a relationship between race and organisational commitment. Moreover, Indian, White and other participants showed high levels of continuance commitment when compared to their counterparts. This result suggests that Indian and other participants feel valued in the organisation from a democratic perspective and thus show higher levels of continuance commitment. The costs of leaving the organisation for these participants are high because their values are aligned to the organisation's values (Martin & Roodt, 2008). Similar results were found for African black participants who demonstrated high levels of continuance commitment.

*(e) Employment level: Differences in terms of sources of job stress*

The results showed that participants at an executive, middle management and junior management level showed higher levels of job security concerns.

This could be attributed to the ongoing change the organisation was experiencing at the time of this study. Moreover, the change strategy may not be clearly communicated and understood, thus leaving these participants more anxious and stressed in terms of their job security. However, executives comparative to other employment levels were slightly lower in terms of their job security. This could imply that executives may have better financial security and possibly other job alternatives. Despite the reasons highlighted above, they still reveal job security as a stressor. Furthermore, participants at an upper administrative and administrative level also showed high levels of job security concerns. This result suggests employees at the lower-end jobs feel anxious because of a lack of communication and understanding of the change strategy. Support from change practitioners and organisational psychologists by means of communication are critical to the reduction of stressors (job security) for participants. Participants need to be given sufficient information and alternatives to allow them to deal and cope with change. When participants are typically faced with change, they go into denial and resistance. Hence having adequate information upfront and alternatives allows them to explore, look forward to the future and even start committing to the change (Jaffe & Scott, 1998).

*(f) Employment level: Differences in terms of organisational commitment*

The results showed that participants at an executive level showed lower levels of continuance commitment compared to their counterparts. This result suggests that participants at this level associate lower psychological and material benefits should they decide to leave the organisation. Further, although participants at this level receive greater remuneration and benefits compared to participants across other employment levels, however due to the changes occurring in the organisation they may feel lower levels of continuance commitment. Thus lower continuance commitment associated with executive level participants is plausible. Moreover, participants at the upper administrative and administrative level also showed slightly higher continuance commitment levels compared to their counterparts. Participants at this level may have the necessary experience, are more comfortable in their jobs and are paid relatively well compared to similar jobs across other industries – hence higher continuance commitment levels would be expected.

*(g) Employment level: Differences in terms of attitudes towards change*

Participants at an executive level, middle management level showed more positive cognitive attitudes towards change when compared to junior management and the administrative level. Participants on an upper administrative level showed more positive cognitive attitudes towards change when compared to the administrative level. As such, the organisation needs to provide participants on lower employment levels with adequate information and communication on the change taking place that will inform participants' thoughts about the change process. A lack of information or communication about the change leads to negative attitudes as participants draw conclusions based on assumptions. As a result there are feelings of anxiety and uncertainty, culminating in higher levels of job stress (Vakola & Nikolaou, 2005; Yilmaz et al., 2013).

In addition, participants at an executive level, middle management and upper administrative level showed more positive behavioural attitudes towards change. Behavioural attitudes towards change are important in managing change in organisations. As such the organisation needs to focus on the behavioural attitudes towards change on junior management, administrative level. Change practitioners and organisational psychologists can influence the behaviour of participants during change by making sure the way they think (cognitive) and feel (affective) about the change remains optimistic (Lau & Woodman, 1995; Vakola & Nikolaou, 2005). Participants' involvement in the change may influence positive thoughts and feelings about the change, thus promoting positive behaviours towards it (Conway & Monks, 2008; Vakola & Nikolaou, 2005).

#### *6.4.7.2 Main findings*

In terms of the tests for significant mean differences older participants showed higher levels of sources of work stress in terms of job security and lack of job autonomy. Moreover, older participants also demonstrated higher affective and continuance commitment levels. There was no significant difference between age in terms of fit and sacrifice embeddedness. In terms of race and organisational commitment; African black and Indian participants showed significantly lower levels of affective commitment. Indian and African black individuals also showed significant differences in terms of their lower continuance commitment in the organisation.

In terms of employment level and experiences of sources of work stress, job security was a concern across all employment levels. However, executives did show slighter lower levels of job stress (job security). This was to be expected owing to uncertainty about change in the FMCG sector.

In terms of employment level and organisational commitment, upper administrative and administrative employment levels showed higher levels of continuance commitment, whilst executives showed lower levels of organisational commitment.

Lastly, in terms of employment level and attitudes towards change (cognitive and behavioural), executive level and middle management showed more positive attitude towards change when compared to the counterparts' i.e. junior management and administrative level. Upper administrative level also showed more positive attitudes towards change when compared to the administrative level. Overall, it appears from the findings that because of the high paced, change management in the FMCG organisation, biographical differences need more consideration. This will assist the organisation to improve its change management outcomes.

#### **6.4.8 Synthesis: Empirically manifested psychological profile**

The central hypothesis of this study was that the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change constitute a psychological profile that can be used to inform change management practices within the FMCG work environment. Figure 6.9 provides an integrated view of the patterns of associations (correlations), overall relationship (canonical correlation) and mediation effects profile which constitutes the core, empirically manifested psychological profile that can be used to inform the management of change interventions in the FMCG organisation.

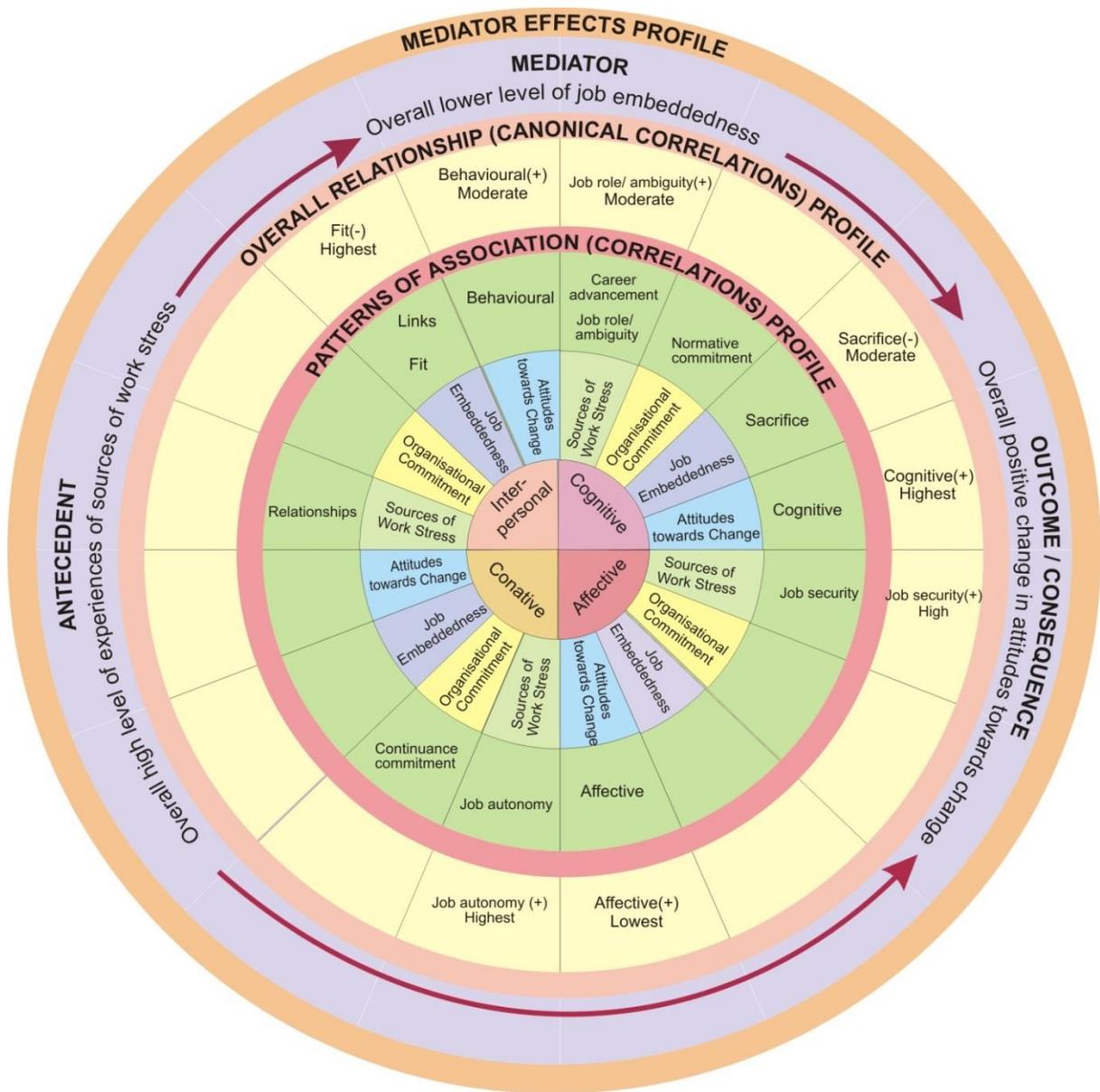


Figure 6.9. Empirically manifested psychological profile

To summarise: Based on the overall empirically tested psychological profile, the following interventions should be considered in change management practices:

At a *cognitive level*, interventions should assist individuals to clarify job role expectations and performance standards. Moreover, job roles should not be ambiguous. Change practitioners need to incorporate training and development plans to up skill individuals on new job role requirements. On-the-job assessments would also be valuable to assess where individuals gaps are, so that further plans can be put in place to close out gaps. Managers need to play an active role coaching individuals on the job.

Moreover, change interventions need to incorporate ways to understand the job embeddedness (sacrifice) of every individual. In other words, the psychological or material benefits the individual associates with the organisation need to be understood so that change management plans can aim to keep individuals retained and engaged through this knowledge acquisition. Positive cognitive attitudes towards change are by far one of the critical factors to be managed in order to promote successful change outcomes. Change practitioners need to position the change benefits and outcomes in a way that helps individuals to create positive perceptions of the change, which will, in turn assist the individual, to create positive cognitions towards the change. Positive cognitive attitudes towards change yield successful buy-in to the change initiatives being implemented.

At an *affective level*, job security is critical in the change management process. If job security is not well managed, individuals will be likely to resist change, especially if they perceive the change will negatively impact them. Individuals need to be assisted through a process of understanding of how the change will affect their work and what their alternatives are. Once individuals have gained this knowledge, the fear of the unknown will be managed, and in turn, job security will be managed. Moreover, adequate time needs to be given to individuals to work through their alternatives. Unreasonable timing will lead to unwarranted pressure being placed on the individual. Positive affective attitudes towards change are paramount to achieving successful change outcomes. Managers need to direct individuals during the change process, and more importantly remain mindful of the importance of affective attitudes towards change, that will allow for individual readiness and buy in to the change being implemented. Change practitioners also have an important role to play in creating positive affective attitudes towards change. If positive feelings are created towards the change, individuals are likely to be engaged and retained during the change process.

At a *conative level*, job autonomy is cited as the most critical source of work stress that needs to be managed during the change process. Job autonomy is often a result of the organisation's structure and management. Change practitioners and managers need to be aware of how job autonomy may be affected as a result of the change in structure. Plans need to be carefully formulated and put in place to afford individuals a sense of job autonomy. Managers need to develop individuals in terms of their job expectations, and create an environment in which individuals can apply their skills with lesser guidance. The organisation can also offer opportunities for further development that will foster autonomy for the individual.

At an *interpersonal level*, individuals' job embeddedness (fit) is also another critical factor to be considered in the change management process. Fit is a force that connects individuals to their jobs as a result of the alignment between individuals' and organisations' goals and or values. When change is imposed, the fit of an individual can be tampered with. Change practitioners need to properly assess the individuals' current fit and how the change will alter their fit. Once this has been established, the individual can be engaged on alternative ways to maintain or increase fit. Through the engagement process, the individual is likely to feel valued and engaged, and thus be retained. Moreover, it is recommended that behavioural attitudes towards change should also be taken into consideration and managed during the change process. One way to reinforce positive behavioural attitudes towards change can include consistent, individual engagement discussions to thrash out concerns and establish how the organisation can assist the individual. Managers can also provide the necessary resources and coaching to promote positive behavioural attitudes towards change. In addition, the individual can be advised about the employee assistance programme to receive counselling and/or financial planning advice.

From a *biographical perspective*, age and gender need to be considered when managing change. In terms of age, younger individuals seem to need more guidance on their career and future prospects in the organisation. Because younger individuals are in their career establishment phase, and any change may be a threat to this, their experiences of work stress will be higher, which could influence their behavioural attitudes towards the change. Change practitioners need to be aware of this and incorporate career planning into new structures, which need to be discussed with younger individuals. As such, there would be a greater degree of buy-in, which is likely to enhance behavioural attitudes towards change. Furthermore, relationships are regarded as important to younger individuals. Because they are at the career establishment phase, relationships are important to help them achieve their career goals and aspirations. When change constitutes a threat to younger individuals' relationships, they are likely to experience higher levels of work stress, which in turn results in negative behavioural attitudes towards change. Therefore change practitioners and managers need to incorporate into their engagement sessions with the individual, how change will impact their current relationships, as well as ways to assist the individual forge or build new relationships. New relationships need to be seen by the individual as an opportunity for further development in the organisation.

Older individuals regard job security and job autonomy as dominant sources of work stress. They would have invested more time and personal resources in the organisation, therefore when change is imposed, it will be regarded as a significant threat. Change practitioners and managers need to take time to understand this and expend more effort engaging older individuals on their job security and job autonomy concerns. Efforts need to be made to allow older individuals autonomy in their roles as they may have the necessary skills and competence to do their jobs. On-the-job coaching may be more applicable to equipping older individuals to cope with new job roles and responsibilities. Older individuals in this study also showed higher affective and continuance level experiences. This suggests that they have a higher emotional link and associate higher costs should they be required to leave the organisation. Change practitioners need to be deliberate in their assessment of how the change will impact older individuals affective and continuance commitment, and put plans in place to assist these individuals retain their affective and continuance commitment to the organisation.

In terms of *gender*, males' experiences of job role and ambiguity and behavioural attitudes were higher compared to females. Organisations need to consider this in the change management process.

*Race* should also be taken into consideration in the change management process. African, white and Indian participants' showed higher levels of affective commitment experiences. Moreover, African black, Indian and other also showed higher levels of continuance commitment. It is evident that individuals from diverse race groups are affectively committed to the organisation. It also clear that the organisation seems to be embracing diversity through different race groups (African black, white and Indian) demonstrating a higher emotional link to the organisation. In order for the organisation to retain individuals from different race groups feeling affective commitment during the change process, there needs to be a perception of fairness and equity. Change practitioners and managers need to ensure that their change plans accommodate diversity principles that are fair.

Lastly, in terms of *employment level*, job security has led to higher levels of experiences of work stress across all employment levels. It is apparent that job security is a major concern in the change management process. Change practitioners need to communicate to individuals how the change will affect their employment with the organisation, so that the uncertainty and fear of the unknown are minimised. When individuals know how the change will impact on their jobs, they can start planning and seeking alternatives.

In terms of employment level, the executive, upper administrative and administrative employment levels showed higher levels of continuance commitment experiences. It seems that individuals in the executive, upper administrative and administrative employment levels associate higher psychological and material costs with the organisation – hence when change occurs it may pose a threat to their continuance commitment. It is therefore recommended that change practitioners remain cognisant of this and incorporate ways to manage continuance commitment particularly at the executive, upper administrative and administrative employment levels. Lastly, it is clear that all employment levels experienced higher levels of attitude towards change (cognitive and behavioural). In this regard, change practitioners need to manage cognitive and behavioural attitudes towards change across all employment levels in the organisation.

Figure 6.10 provides a summary of the core biographical characteristics that need be considered when managing change in organisations.

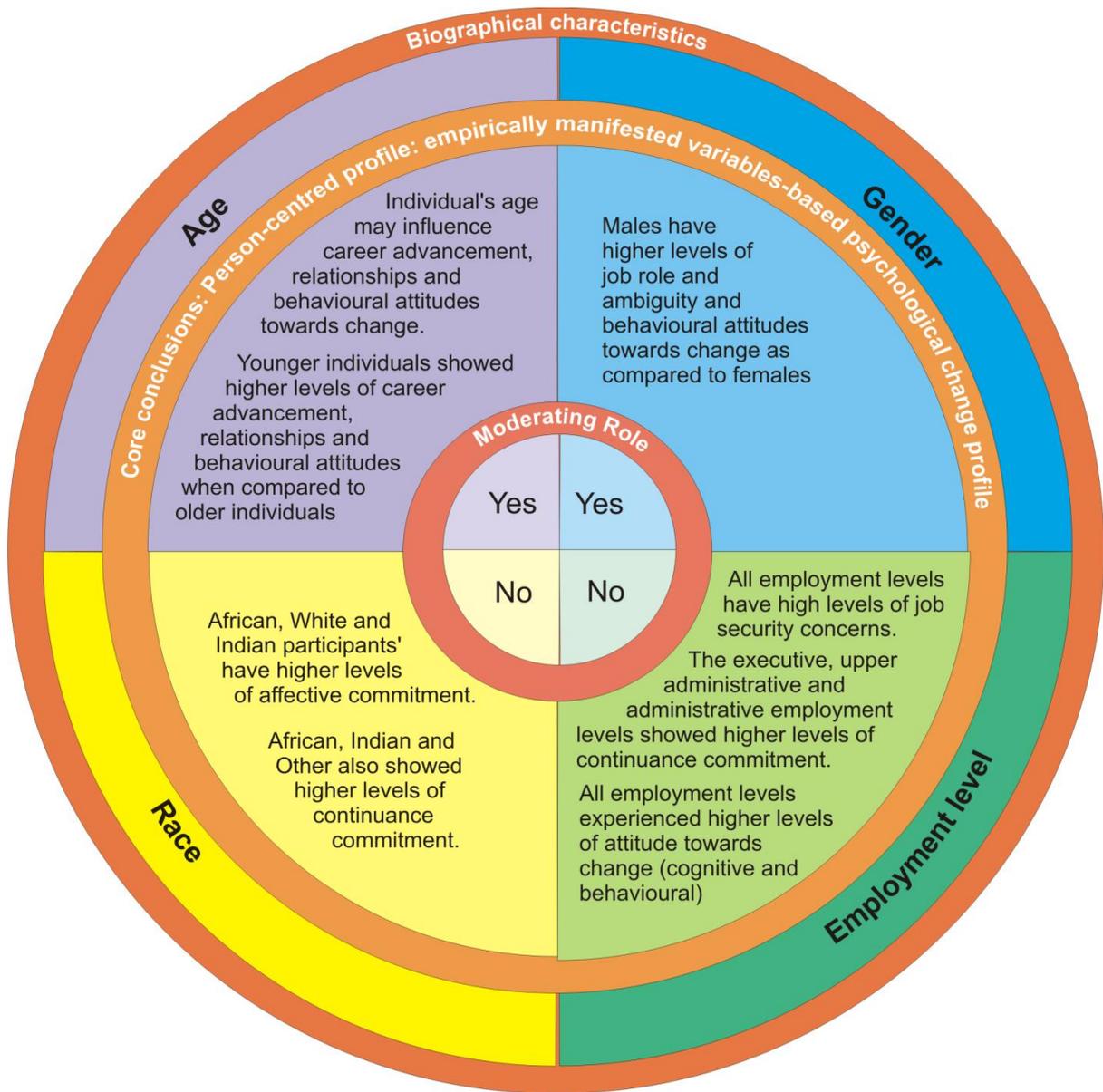


Figure 6.10. Biographical characteristics profile

#### 6.4.8.1 *Main findings: Synthesis*

At a *conative level*, the findings showed that job autonomy is the predominant source of work stress for individuals in the FMCG organisation. It is probable that the organisation may have implemented jobs that lack job autonomy. Also, processes within jobs may be highly controlled, resulting in the individual feeling out of control, with little or no autonomy. Another reason could be that managers may be micro-managing staff because of the job being new, and they themselves are unfamiliar with the new ways of working.

At a *cognitive level*, it was also found that job role and ambiguity was a concern for the organisation. It appears that jobs may be ambiguous because of a lack of direction and clarity on the part of management. A factor that may have had an impact on this could be unreasonable timelines for implementation of change processes. Change practitioners would have been under significant pressure, and may have implemented change without providing proper guidance and clarity on the job role expectations. There also seems to be a lack of training and development of staff around new jobs. It also appears from the findings that sacrifice, in terms of job embeddedness, is another area of concern that needs to be managed in the organisation. From the sample profile, it is evident that individuals are predominantly in their career establishment phase, and when changes are implemented, these individuals are typically concerned because they may associate higher sacrifice levels with the organisation. It is likely that the organisation is implementing change without much consideration for the sacrifice an individual has to make for the organisation. The findings also showed that cognitive attitudes towards change are a huge concern and need to be properly managed in the organisation to ensure successful change outcomes. Change practitioners do not pay much attention to creating positive cognitive attitudes towards change, and as a result individuals may not see the benefit of change, and therefore appear to be resistant and disengaged.

At an *affective level*, the findings showed that job security as a source of work stress requires far more consideration in the management of change. It appears that individuals are highly stressed because they feel unsure about their employment in the organisation. The organisation could improve its communication practices by letting individuals know what the situation is, so that they can make alternate plans, within a reasonable time frame. Moreover, affective attitudes towards change seem to require more attention during the change management process. It appears that the organisation may not realise the impact affective attitudes towards change may have on the success rate of the change being implemented.

At an *interpersonal level*, it appears from the findings that fit needs to be managed in the organisation. It would seem that when new jobs are implemented, the organisation could improve its assessment of the individual's fit and properly determine where to place the individual in the new structure. It is likely that in the highly pressurised FMCG environment, there may not be adequate time to implement changes, and therefore assessing fit may not be high on the change management agenda. Lastly, behavioural attitudes towards change need more focus in change management. It is possible that the organisation may be ignorant of this and not realise the impact behavioural attitudes towards change will have on the outcomes of the change management process.

From a *biographical perspective*, age and gender need to be given considerable attention in the change management process. Job security and attitudes towards change (cognitive and behavioural) need to be managed better across all employment levels. It appears that owing to the rapid changes that have occurred, little or no consideration has been given to biographical differences in the organisation.

Overall, the imminent continuity of change requires the organisation and individuals to adopt a positive stance towards change. Therefore, as highlighted in this study, sources of work stress, psychological attachment and attitudes towards change are core aspects that need to be considered when managing change, particularly in FMCG organisations. As shown in the mediation effects profile, high levels of work stress, influence psychological attachment, and low job embeddedness, in turn, may result in positive attitudes towards change. Individuals endeavour to achieve a higher fit in organisations, and if there is a lack of fit, they may be more supportive of change which may help them to achieve this.

#### 6.4.8.2 *Counter-intuitive findings*

According to the findings, organisational commitment (affective, continuance and normative commitment) is a mediator in the sources of work stress and attitudes towards change relationship.

#### **6.4.9 Decisions concerning the research hypotheses**

Overall, the results provided supportive evidence for the alternative research hypotheses. Table 6.35 below provides a summary of the key findings relating to the research hypotheses.

Table 6.35

*Summary of Key Findings relating to the Research Hypotheses*

<b>Research aim</b>	<b>Research hypothesis</b>	<b>Statistical procedures</b>	<b>Supportive evidence provided</b>
<b>Research aim 1:</b> To assess the empirical inter-relationships between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change as displayed in a sample of respondents in the South African FMCG context	H01: There is no statistically significant positive inter-relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.	Zero-order (bivariate) correlations	No
	Ha1: There is a statistically positive inter-relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.		Yes
<b>Research aim 2:</b> To assess the overall statistical relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) as independent variables and attitudes towards change (as the dependent variable)	H02: There is no statistically significant overall relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.	<u>Inferential statistics:</u> Canonical correlations	No
	Ha2: There is a statistically significant overall relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.		Yes

Research aim	Research hypothesis	Statistical procedures	Supportive evidence provided
<p><b>Research aim 3:</b> To assess whether psychological attachment (organisational commitment and job embeddedness) significantly mediates the relationship between sources of work stress and attitudes towards change</p>	<p>H03: Psychological attachment (organisational commitment and job embeddedness) does not significantly mediate the relationship between sources of work stress and attitudes towards change.</p>	<p><u>Inferential statistics:</u> Mediation modelling</p>	No
	<p>Ha3: Psychological attachment (organisational commitment and job embeddedness) significantly mediates the relationship between sources of work stress and attitudes towards change.</p>		Yes
<p><b>Research aim 4:</b> To assess whether the biographical variables (age, gender, race and employment level) significantly moderate the relationship between sources of work stress and attitudes towards change</p>	<p>H04: The biographical variables (age, gender, race and employment level) do not significantly moderate the relationship between sources of work stress and attitudes towards change.</p>	<p><u>Inferential statistics:</u> Hierarchical moderating regression analysis</p>	No
	<p>Ha4: The biographical variables (age, gender, race and employment level) significantly moderate the relationship between sources of work stress and attitudes towards change.</p>		Yes

Research aim	Research hypothesis	Statistical procedures	Supportive evidence provided
<b>Research aim 5:</b> To assess whether the biographical variables (age, gender, race and employment level) that functioned as significant moderating variables in the sources of work stress attitudes towards change relation differ significantly regarding their sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.	H05: The biographical variables (age, gender, race and employment level) that did not function as significant moderating variables in the sources of work stress-attitudes towards change relation do not differ significantly regarding their sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.	Tests for significant mean differences	No
	Ha5: The biographical variables (age, gender, race and employment level) that functioned as significant moderating variables in the sources of work stress-attitudes towards change relation differ significantly regarding their sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.		Yes

Note: H0 (null hypothesis); Ha (alternative hypothesis)

## 6.5 CHAPTER SUMMARY

The descriptive, correlational and inferential statistics of importance to this research were reported and interpreted in this chapter. This allowed the researcher to integrate the findings of the literature review and empirical research. The results provided tangible, supportive evidence for the research hypotheses.

The following research aims were achieved:

**Research aim 1:** To assess the empirical inter-relationships between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change as displayed in a sample of respondents in the South African FMCG context.

**Research aim 2:** To assess the overall statistical relationship between sources of work stress and psychological attachment (organisational commitment and job embeddedness) as independent variables and attitudes towards change (as the dependent variable).

**Research aim 3:** To assess whether psychological attachment (organisational commitment and job embeddedness) significantly mediates the relationship between sources of work stress and attitudes towards change.

**Research aim 4:** To assess whether the biographical variables (age, gender, race and employment level) significantly moderate the relationship between sources of work stress and attitudes towards change.

**Research aim 5:** To assess whether the biographical variables (age, gender, race and employment level) that functioned as significant moderating variables in the sources of work stress-attitudes towards change relationship differ significantly regarding their sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes toward change.

Chapter 7 will discuss the last stage of the empirical study, namely to draw conclusions, discuss limitations and make recommendations based on the findings of the research study. Chapter 7 will therefore address research aim 5, namely to make recommendations for organisational change intervention practices and future research.

## CHAPTER 7: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

This chapter discusses research aim 6, namely to make recommendations for organisational change intervention practices and future research. The chapter also discusses the limitations of the literature review and empirical study. Lastly, recommendations are made for the practical application of the findings and for future research.

### 7.1 CONCLUSIONS

This section discusses the conclusions based on the literature and empirical research in alignment with the research aims as highlighted in chapter 1.

#### 7.1.1 Conclusions relating to the literature review

The general aim of this research was to investigate the relationship dynamics between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change, and to determine how the elements of the overall psychological profile constructed from the relationship dynamics inform change interventions in a South African FMCG context. The general aim was attained through addressing the specific research aims.

Conclusions were drawn for each of the specific aims regarding the relationship dynamics between the sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.

##### 7.1.1.1 *Research aims 1 and 1.3*

The research aims below were achieved in chapter 2.

**Research aim 1:** To conceptualise sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change in the contemporary world of work.

**Research aim 1.3:** To conceptualise the attitude towards change construct and explore how employees' biographical characteristics (age, gender, race and employment level) influence this construct.

(a) *Conclusions relating to organisational change in the 21<sup>st</sup> century workplace*

The literature indicated that organisational change has evolved significantly over the years. The pace of organisational change in response to globalisation, an ongoing need for innovation, the empowerment of consumers and changes in demand patterns in the market have substantially increased, particularly in the FMCG work environment (Caldwell, 2011; Mason, 2008; Slabbert & De Villiers, 1998; Soltani et al., 2007; Supply chain foresight, 2008). As such, these changes have had significant implications for organisations when managing change applicable to their employees and their organisational behaviours.

Grounded on the literature review, the following conclusions can be drawn about change and employee behaviour:

- Ongoing rapid change has contributed significantly to sources of work stress for the employee (Dahl, 2011; Dua, 1996; Fisher, 1994; Van den Heuvel et al., 2010).
- Sources of work stress have shown a relationship to employees' attitudes towards change. If employees experience high levels of work stress, they are more likely to experience negative attitudes towards change (cognitively, affectively and behaviourally) (Lau & Woodman, 1995; Vakola & Nikolaou, 2005).
- High stress levels have also been associated with lower levels of motivation, productivity, high absenteeism and turnover (Cooper & Cartwright, 1997).
- Psychological attachment (organisational commitment and job embeddedness) is a key factor to be considered when managing change, as change imposes shocks on employees. Psychological attachment helps them to remain protected from the effects of stress, because it enables them to see direction and attach meaning to their work (Bennett & Durkin, 2000).

It is clear from the literature that change and employee behaviour reflect a new dynamic in managing change in the 21<sup>st</sup>-century work environment. It can also be concluded that understanding the stages in resistance to change (denial, resistance, exploration and commitment) and employee defence mechanisms (humour, anticipation, denial, dissociation, isolation of affect, projection and acting out) help change practitioners to manage change more effectively by adapting the approach used for every employee (Bovey & Hede, 2001; Jaffe & Scott, 1998).

Since Employees react to change in their own unique way, it is critical that change practitioners understand these dynamics and the relationship dynamics between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. It also can be concluded that change practitioners need to employ various strategies to overcome resistance to change. Some of these strategies include educating employees and communicating about the change. Encouraging participation and involvement of employees during the change encourages positive behaviours towards it and lowers their stress levels. Supportive and facilitative leadership behaviours are necessary to foster a safe environment for the employee during change. Negotiations with employees and obtaining agreement on specific change factors are essential to gain employee buy-in and trust. Manipulation and co-optation are other ways to influence potential resistance to change. Explicit and implicit coercion to gain compliance to proposed change should only be used as a last resort because some of the effects of this strategy include fear, frustration and revenge which may lead to negative consequences for the organisation (Anderson, 2011; Duke, 2011; Harvey, 2010).

*(b) Conclusions relating to factors influencing employees' attitudes towards change*

From the literature it can be concluded that psychological variables (cognitive, affective and interpersonal) and biographical variables (age, gender and race) influence employees' attitudes towards change. At a *cognitive* level, the way employees think about change is fundamental to shaping their feelings and behaviours towards it. When employees are faced with change, they determine through their perceptual filters how to react towards it (Lau & Woodman, 1995; Vakola & Nikolaou, 2005). Hence, based on their cognitions, employees can choose to support or resist change. In this regard, change practitioners should openly communicate the benefits of change and send a message of encouragement and hope to prompt positive thoughts or cognitions towards the changes. Based on the previous discussion, it can be concluded that communication, providing sufficient information to employees, participation and involvement are vital to promoting successful change outcomes (El-Farra & Badawi, 2012; Piderit, 2000).

At an *affective* level, employee feelings about change are important. Employees who exhibit positive feelings based on their appraisal of the change will foster positive attitudes towards it. By contrast, it can be concluded that if employees appraise the change negatively, negative feelings will be expressed by them, and they will exhibit resistance towards the change (El-Farra & Badawi, 2012; Vakola & Nikolaou, 2005).

At an *interpersonal* level, employees who feel positive about a change, will exhibit positive behavioural intentions and support towards it. It can be concluded that the psychological variables (cognitive, affective and interpersonal) play a decisive role in determining the outcomes of change interventions.

In terms of the biographical variables, age and gender were shown to influence employees' attitudes towards change. Older employees may be more likely to support change as they may have the tenure and experience to understand the benefits that changes may bring (Yilmaz et al., 2013). However, at other times, some older employees may resist change, as it may be life altering for them (Niessen et al., 2010). In terms of gender, males have been shown to be more resistant to change and are more likely to adopt negative attitudes towards it compared to females (Vakola & Nikolaou, 2005). The relationship between race and attitudes towards change could not be concluded, because there is no current research on this topic in the literature.

Lastly, it can be concluded that an employee's attitudes towards change are influenced by factors pertaining to the organisation's change content, change context, change process as well as the individual's attributes (locus of control and self-efficacy). In terms of the change content, the employee will initially determine the extent of the threat, and where a threat is perceived, negative attitudes will exist. For the latter reasons change practitioners need to communicate clearly the impact of the change and provide employees with suitable alternatives. Change practitioners need to be mindful of the change context, specifically change politics, organisational support and group cohesion dynamics. It can be concluded that these factors will play a vital role in determining the outcomes of change.

In terms of the change process, it can be concluded that management support, change communication and change participation are significant factors in determining successful outcomes of change interventions.

Individual attributes such as locus of control are important factors to understand when managing change, because employees with an internal locus of control are likely to believe they have control over the changes occurring, and are thus more likely to adopt positive attitudes towards change. Conversely, employees with an external locus of control believe that their circumstances are determined through fate or luck, and they are thus more likely to feel they do not have control over the change, and will probably adopt negative attitudes towards it (El-Farra & Badawi, 2012).

### 7.1.1.2 *Research aim 1.1*

The research aim below was achieved in chapter 3:

**Research aim 1.1:** To conceptualise the work stress construct and explore how employees' biographical characteristics (age, gender, race and employment level) influence this construct.

#### (a) *Conclusions relating to the construct work stress*

From the literature it was evident that there are many different theoretical models and definitions of the sources of work stress (Cox et al., 2000; Demerouti et al., 2001; Hackman & Oldman, 1980; Karasek, 1979; Lazarus & Folkman, 1987; Xanthopoulou et al., 2007). Owing to the fact that this study was based on the transactional view of work stress, the Lazarus and Folkman (1987) model was adopted for its purposes. Lazarus (1999) defines work stress as a development from a vigorous transaction between a person and his or her work environment that is appraised as potentially challenging, threatening or harmful. This leads to efforts to resolve the appraised challenge, threat or harm through coping processes. It can be concluded that the interaction between the individual and the work environment is significant in the context of organisational change. When organisational change interventions are implemented, work stress is often a result of the interaction between the individual and work environment (Vakola & Nikolaou, 2005).

Moreover, it can be concluded that job role ambiguity, relationships, tools and equipment, career advancement, job security and job autonomy have been cited in the literature as common sources of work stress (Coetzee & De Villiers, 2010). These sources of work stress may in fact arise from poor organisational change management. It can also be concluded that these sources of work stress can arise as a result of the individual perceiving an inability to cope with the new demands in the work environment, which is referred to as the *appraisal process* where the individual recognises that work demands are about to or exceed his or her coping resources (Holroyd & Lazarus, 1982). If change is not well managed, it can create perceptions for employees, where they feel out of control, anxious, sceptical and suspicious and thus question if they have sufficient resources available to deal with the change (Choi & Ruona, 2011; Dahl, 2011; Vakola & Nikolaou, 2005).

The last component of Lazarus and Folkman's (1987) model relates to problem-focused coping and emotion-focused coping. Problem-focused coping comprises efforts to define the problem, generate alternative solutions, weigh up the costs and benefits of the different actions, take actions to change, and, if necessary, acquire new skills. Emotion-focused coping, however, is aimed at decreasing emotional distress. This involves efforts such as distancing, avoiding, selective attention, wishful thinking, blaming, minimising, venting emotions, meditating and seeking social support (Lazarus & Folkman, 1987).

It can be concluded that change practitioners should take time to understand these cognitive and emotional strategies and apply some of these techniques when managing change. For example, from an emotion-focused coping perspective, applying meditation during change may help an individual to reappraise the meaning of a situation, but the meditation does not directly change the meaning. Hence emotion-focused coping is the more common form of coping used, especially when events are not changeable (Dewe et al., 2010; Lazarus & Folkman, 1984). This is particularly relevant in the context of change because employees do not have the option of changing the circumstances they are faced with. However, if change practitioners determine potential techniques and resources when the change is communicated, this may help the employee to cope with the change.

#### *7.1.1.3 Research aims 1.2, 2 and 3*

The research aims below were achieved in chapter 4.

**Research aim 1.2:** To conceptualise the psychological attachment construct (organisational commitment and job embeddedness) and explore how employees' biographical characteristics (age, gender, race and employment level) influence this construct.

**Research aim 2:** To conceptualise the theoretical relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change, and to explore how the elements of the psychological profile constructed from the theoretical relationship dynamics inform organisational change interventions.

**Research aim 3:** To outline the psychological profile for organisational change interventions and practices and formulate recommendations for future research.

(a) *Conclusions relating to the construct of organisational commitment*

The literature review showed that many different definitions of organisational commitment exist (Allen & Meyer, 1990; Morrow, 1993; Randall & Cotes, 1991; Reichers, 1985). However, owing to the fact that this study was based on Meyer and Allen's (1997) organisational commitment questionnaire, their definition of organisational commitment was used for the purposes of this study.

Organisational commitment as defined by Allen and Meyer (1990) is conceptualised as a psychological state that connects an employee to an organisation, thus reducing turnover. Moreover, three elements of organisational commitment are underpinned in this model, namely affective commitment, continuance commitment and normative commitment, which inform the employees' membership with the organisation.

According to Allen and Meyer (1990), affective commitment refers to employees' emotional attachment to, identification with and involvement in the organisation. This component of organisational commitment reflects an employment relationship that is voluntary from the employees' perspective. There are no other factors influencing the employees' decision to remain as a member of the organisation. The employee primarily remains with the organisation because of congruency between his or her values and goals and those of the organisation.

The continuance commitment component of the model reflects the awareness of employees' decision to remain with or leave the organisation as a result of the associated costs. It can be concluded that during times of change, organisations need to deliberately communicate the benefits of change, and the reasons for remaining with the organisation that are beneficial. Employees need to cognitively, affectively and behaviourally show buy-in to the change in terms of their attitudes, thus affiliating higher costs should they decide to leave the organisation. Where higher costs are associated with leaving the organisation, the employee may decide to remain with it. The last component of organisational commitment refers to employees' feelings of compulsion to remain with the organisation.

From the literature, it can be concluded that factors that promote organisational commitment during change include employee involvement and participation in the change, using informal leaders, training and empowerment, rigorous communication plans, new common vision and goals, and maintaining human resource practices that are non-autocratic.

Committed employees are likely to support change in organisations – hence the importance of organisations seeking to incorporate strategies to foster organisational commitment to their change plans.

*(b) Conclusions relating to the construct of job embeddedness*

From the literature review it is evident that job embeddedness represents several connectors that bond an individual to his or her job, or his or family in a social, financial and psychological system (Mitchell et al., 2001).

Holtom et al. (2006) indicated that job embeddedness represents a wide set of influences on an individual's decision to remain in the job. Moreover, these influences include on-the-job and off-the-job factors. On-the-job factors include bonds with work peers, the fit between the employees' skills in relation to the job and organisation-sponsored community-service activities. Job embeddedness also includes off-the-job factors such as family, community and personal commitments (Mitchell et al., 2001). Moreover, it can be concluded that in the organisation and community, an individual has three facets of job embeddedness, namely links, fit and sacrifice and therefore three facets of attachment. The *links* that individuals have both on and off the job, the *fit* individuals perceive between their self-concept and the environment they live and work in and the *sacrifices* they would make in giving up their jobs determine the extent of embeddedness in the organisation or community (Mitchell et al., 2001). Age, gender and employment level were identified as factors influencing job embeddedness. It is therefore recommended that change practitioners understand these dynamics and strive to manage change in an adaptable manner with their employees.

*(b) Conclusions relating to the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change*

It can be concluded that when change occurs in an organisation, the individual is faced with a threat in terms of resource loss. As such, when faced with a threat, the individual will appraise the situation to determine whether or not he or she can cope with it. Moreover, the individual will make an assessment of the extent of personal resources (psychological attachment) available to deal with the threat (Hobfall, 1989; Lazarus & Folkman, 1989; Mitchell et al., 2001; O'Reilly & Chatman, 1986).

The literature also indicates that psychological attachment (organisational commitment and job embeddedness) can act as a personal resource to the employee when faced with stressful events such as changes in the organisation. However, when the individual has a diminished sense of psychological attachment (organisational commitment and job embeddedness) to the organisation, the ability to properly assess the change becomes compromised (Hobfoll, 2001). The employee in this regard may start to disburse the remaining resources to cope with the perceived stressors. Once this occurs, the employee may experience higher levels of stress and is more likely to exhibit negative attitudes towards change (affectively, cognitively and behaviourally) (Hobfoll, 2001; Vakola & Nikolaou, 2005).

Conversely, it can be concluded that individuals with adequate or excess resources and higher psychological attachment (organisational commitment and job embeddedness), positive outcomes such as lower stress and positive attitudes towards change are more likely to be retained (Hobfoll, 2001; O'Reilly & Chatman, 1986; Vakola & Nikolaou, 2005).

*(c) Conclusions relating to the psychological profile*

Based on the literature review, a theoretical psychological profile for change interventions, outlining the sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change dispositions at a cognitive, affective, conative and interpersonal level was developed to inform change management practices.

At a *cognitive level*, successful change management practices may be enhanced by job role and ambiguity, job tools and equipment, career advancement prospects (sources of work stress), normative (organisational commitment), sacrifice (job embeddedness) and cognitive factors (attitudes towards change) (Coetzee & De Villiers, 2010; Meyer & Allen, 1997; Mitchell et al., 2001; Ng & Feldman, 2010; Lau & Woodman, 1995; Vakola & Nikolaou, 2005).

It can be concluded, that organisations should focus on constructing a work environment that provides clear job roles and responsibilities, and the necessary job tools, training, coaching and career advancement prospects. As such, jobs need to be redesigned to incorporate transparency and non-ambiguity, and they should be aligned to fair remuneration and benefit structures. Individuals need to feel a sense of empowerment through knowledge creation via training and coaching.

Managers need to be open to exploring these opportunities with employees. One-on-one discussions to clarify career advancement opportunities need to be held at least bi-annually between the manager and employee. It can be concluded that it is imperative for organisations and change practitioners to assist employees to become acquainted with their normative commitment to the organisation by highlighting reasons for their membership. Once employees are inherently mindful of this, it will inform their decision making to remain with the organisation. Sacrifices the employee would make either from an organisational or community perspective need to be discussed. Similarly, an understanding of the psychological or material costs associated with leaving the organisation will inform the employee's decision-making process to remain with the organisation.

Further, sufficient and accurate information should be communicated to the employee highlighting the reasons for and benefits of the change. This could influence the way he or she is likely to think about the change (cognitive) and thus assist him or her to develop positive attitudes towards the change (Lau & Woodman, 1995; Vakola & Nikolaou, 2005). An individual's thoughts will inherently shape the feelings and behaviours that surface in the organisation.

At an *affective level*, change management practices are likely to be influenced by job security (sources of work stress), affective commitment and affective attitudes towards change (Coetzee & De Villiers, 2010; Lau & Woodman, 1995; Meyer & Allen, 1997; Vakola & Nikolaou, 2005).

It can be concluded that organisations need to clarify the extent of job losses with respective employees. Where job loss is imminent, concerted efforts should be made to assist employees to identify alternative employment opportunities. Interviewee skills can be developed to assist employees to interview for more successful outcomes. Another recommendation is that assistance be offered to employees when redesigning their curriculum vitae.

It can also be concluded that change practitioners need to highlight the alignment between the employees' current needs and how the change will align with those needs. When an employee recognises the emotional attachment or affective commitment he or she has to the current organisation, this will influence his or her decision to remain with the organisation.

Furthermore, affective attitudes towards change need to be managed – hence the need for change practitioners to assist employees to develop positive feelings about the change. One way to create positive feelings about the change is through employee involvement and participation. This will assist help the employee to create buy-in and thus may also influence him or her to develop positive affective attitudes towards the change (Vakola & Nikolaou, 2005).

At a *conative level*, job autonomy (sources of work stress) and continuance commitment are likely to influence change management practices. It can be concluded that change practitioners need to understand the extent to which job autonomy is significant to the employee and thus accommodate or create opportunities of job autonomy for the employee (Coetzee & De Villiers, 2010). Another factor that needs to be considered in the context of job autonomy is leadership styles. Leadership styles can allow the employee to exercise job autonomy or constrain this for the employee through micro-management/increased supervision. As indicated in the literature, human resource practices such as training and development will assist with developing an employee's skill set, thus increasing the likelihood of job autonomy for him or her (Conway & Monks, 2008). It is also evident in the literature that continuance commitment is important to the change management process. Change practitioners need to deliberately include strategies to remind employees of their continuance commitment to the organisation and ensure that the economic value, costs and risks associated with the employee leaving the organisation are communicated.

At an *interpersonal level*, change management practices are likely to be influenced by relationships as primary sources of work stress, fit and links, embeddedness and behavioural attitudes towards change. The literature has shown that relationships are a key factor to be considered in the context of change. Poor, unsupportive relationships and unfair treatment by colleagues and/or managers have been shown to inhibit successful change outcomes (Vakola & Nikolaou, 2005). Change practitioners can create opportunities for relationship building among managers and peers through various initiatives or activities. Fairness is a perception that also needs to be managed. When employees perceive they are being treated fairly or equitably, the employment relationship may be strengthened.

Fit and links have been identified in the literature as significant factors to be considered when managing change. From a fit perspective, the change practitioner needs to create an understanding of the congruency between and employee's goals/values and organisational goals/values. This will facilitate and strengthen the employee's job embeddedness at the organisation.

Further, change practitioners need to highlight the employee's links with the organisation and or community during discussions with him or her. Similarly, this will facilitate and strengthen the employee's job embeddedness. Behavioural attitudes towards change have been deemed vital in the literature to managing change in an organisation. Behavioural attitudes towards change can be developed through various initiatives; one example would entail employee involvement and participation in the change. Employees are likely to display positive behaviours towards the change.

### **7.1.2 Conclusions relating to the empirical study**

The empirical aim of this research was to conduct the following five core tasks:

- To assess the empirical inter-relationships between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change as displayed in a sample of respondents in the South African FMCG context (H01 and Ha1).
- To assess the overall statistical relationship between sources of work stress and psychological attachment (organisational commitment and job embeddedness) as independent variables and attitudes towards change (as the dependent variable) (H02 and Ha2).
- To assess whether psychological attachment (organisational commitment and job embeddedness) significantly mediates the relationship between sources of work stress and attitudes towards change (H03 and Ha3).
- To assess whether the biographical variables (age, gender, race and employment level) significantly moderate the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change (H04 and Ha4).
- To assess whether the biographical variables functioned as significant moderating variables in the sources of work stress-attitudes towards change relation, and whether these variables differ significantly regarding their sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes toward change (H05 and Ha5).

The statistical results derived from this study provided supportive evidence for Ha1, Ha2, Ha3, Ha4, Ha5. The findings obtained for each of the research aims and hypotheses will be presented as conclusions to the empirical study.

7.1.2.1 *The first aim: To assess the empirical inter-relationships between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change as displayed in a sample of respondents in the South African FMCG context*

The empirical results provided supportive evidence for research hypothesis Ha1. The following overall conclusion was drawn in this respect:

*Conclusion: Individuals' sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change are significantly related.*

Based on the significant relationships evident between the participants' *sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change* dispositions, the following specific conclusions can be drawn:

(a) *Conclusions relating to the empirical relationship between sources of work stress and organisational commitment*

Based on the empirical results, the following conclusions are drawn:

- Individuals' affective commitment, continuance commitment and sources of work stress are significantly and positively related.
- Work-related stressors are managed in the change management process, and successful management will assist individuals to remain committed to the organisation. The greater the individual's commitment, the more likely he or she will remain in the organisation, despite the turbulence.
- High levels of work stress experiences are negatively associated with individuals' normative commitment to the organisation. Hence the individual's sense of obligation to remain in the organisation will be altered during stressful experiences, which may pose a threat of turnover to the organisation.
- Clear job role expectations that are non-ambiguous are likely to enhance the affective and continuance commitment of individuals. Individuals are likely to associate a stronger emotional attachment to the organisation and associate higher costs of leaving the organisation, when the organisation is able to manage stressors such as job role and ambiguity.

- Good peer and supervisor/manager relationships in the organisation may foster a stronger sense of affective and continuance commitment among individuals. Through relationships, the individual associates a stronger sense of belonging and emotional attachment to the organisation – hence leaving the organisation becomes less probable as the individual will have to give up the bonds forged.
- Career advancement and prospects need to be managed, especially with individuals in their establishment career phase – as such, the normative commitment of individuals may be enhanced.
- Organisations that manage job security and job autonomy during organisational change are likely to enhance the affective and continuance commitment of individuals.
- Organisations with higher job security and job autonomy concerns are likely to promote lower levels of normative commitment.

*(b) Conclusions relating to the empirical relationship between sources of work stress and job embeddedness*

According to the empirical results, the following conclusions can be drawn:

- Individuals with high levels of work stress experiences are likely to perceive lower job embeddedness in the organisation, particularly in terms of fit and sacrifice embeddedness.
- Organisations that manage sources of work stress (job role and ambiguity, relationships, job tools and equipment, career advancement and prospects, job security and job autonomy) are likely to enhance the fit and sacrifice embeddedness of individuals.
- Organisations need to strive for ways to enhance a higher fit and sacrifice during change, and as such, if individuals are more embedded, they will be more open to the change being implemented.

(c) *Conclusions relating to the empirical relationship between sources of work stress and attitudes towards change*

According to the empirical results, the following conclusions can be drawn:

- Sources of work stress are associated with an individual's attitude towards change (affective, cognitive and behavioural).
- Organisations that manage sources of work stress during change are likely to enhance positive feelings, thoughts and behaviours towards the change.
- Individuals show preference for clear job role expectations that are non-ambiguous. Proper direction provided by managers in terms of the job role may nurture positive attitudes towards change.
- Individuals strive for positive peer/manager relationships in the organisation and if these are managed they are likely to enhance attitudes towards change.
- Individuals prefer a work environment that provides adequate job tools and equipment, especially when job roles may have changed, which are associated with positive attitudes towards change.
- Individuals strive for career advancement and prospects, and if afforded the opportunities in the organisation, they may display more positive attitudes towards change.
- Individuals show a need for job security, and if the organisation can provide this, individuals will be more likely to be open and supportive towards the change.
- Individuals show preference for job autonomy. If organisations can design jobs in a way that can provide job autonomy, individuals might be more supportive of the changes.

(d) *Conclusions relating to the empirical relationship between psychological attachment variables: job embeddedness and organisational commitment*

According to the empirical results, the following conclusions can be drawn:

- Individuals' psychological attachment to the organisation is determined through their commitment and embeddedness mind-sets.
- The higher the fit, links and sacrifice embeddedness perception that the individual has towards the organisation, the more embedded he or she is in the organisation.

- Individuals with a higher affective, continuance and normative commitment will remain more committed to the organisation.
- Committed and embedded individuals are likely to put more effort into their jobs and remain with the organisation.

*(e) Conclusions relating to the empirical relationship between job embeddedness and attitudes towards change*

According to the empirical results, the following conclusions can be drawn:

- Individuals with perceived lower job embeddedness (fit, links and sacrifice) in the organisation may tend to display positive attitudes towards change.
- Individuals with a lower perceived fit in the organisation, may strive to enhance their fit during the change, thus supporting the change.
- Individuals with lower perceived sacrifice may seek opportunities during the change to enhance their sacrifice embeddedness.

*(f) Conclusions relating to the empirical relationship between organisational commitment and attitudes towards change*

According to the empirical results, the following conclusions can be drawn:

- Individuals with stronger continuance commitment in the organisation will tend to be open towards the change, displaying positive attitudes towards it.

*(g) Conclusions relating to the empirical relationship between the control variables (age, gender, race and employment level), the sources of work stress, job embeddedness, organisational commitment and attitudes towards change*

According to the empirical results, the following conclusions can be drawn:

*Age*

- An individual's age can be a determining factor in how the individual copes with sources of work stress, specifically job security and lack of job autonomy.

- An individual's age can be an influencing factor in affective and continuance commitment.
- An individual's age can be an influencing factor in links in terms of job embeddedness.

#### *Gender*

- Gender is not likely to influence an individual's psychological attachment (job embeddedness and organisational commitment: normative commitment).

#### *Race*

- Race may influence affective commitment.

#### *Employment level*

- Employment level in an organisation may influence the individual's cognitive and behavioural attitudes towards change.

*7.1.2.2 The second aim: To assess the overall statistical relationship between sources of work stress and psychological attachment (organisational commitment and job embeddedness) as independent variables and attitudes towards change (as the dependant variable)*

The empirical results provided supportive evidence for research hypothesis Ha2. The following overall conclusion can be drawn in this regard:

*Conclusion: Individuals' sources of work stress (lack of job autonomy, job security, job role and ambiguity) and psychological attachment (fit and sacrifice embeddedness) are significantly related to their attitudes towards change (affective, cognitive and behavioural attitudes) dispositions.*

Based on the significant relationships found between the participants' *sources of work stress and psychological attachment (job embeddedness) and attitudes towards change dispositions*, the following specific conclusions can be drawn:

- Managing individuals' sources of work stress (lack of job autonomy, job security, job role and ambiguity) will help them to manage their attitudes towards change (affectively, cognitively and behaviourally) and thereby enhance their support towards change initiatives.
- Psychological attachment (fit and sacrifice embeddedness) can enhance the individual's attitudes towards change and influence work stress positively.

*7.1.2.3 The third aim: To assess whether psychological attachment (organisational commitment and job embeddedness) significantly mediates the relationship between sources of work stress and attitudes towards change*

The empirical results provided supportive evidence for research hypothesis Ha3. The following overall conclusion can be drawn in this regard:

*Conclusion: Individuals' psychological attachment (job embeddedness) partially mediates the sources of work stress and attitudes towards change relationship*

Based on the significant relationships found between the participants' psychological attachment (job embeddedness), sources of work stress and attitudes towards change dispositions, the following specific conclusions can be drawn:

- Individuals with high levels of work stress experiences are likely to be less embedded in their jobs
- When individuals have high levels of work stress experiences, it negatively influences their job embeddedness which, in turn, is positively associated with attitudes toward change.
- Individuals strive towards a higher fit between their personal values and culture of the organisation, and when there is a perceived lack of fit, individuals may support the change to accomplish better fit with the organisation's culture.
- Individuals' attitudes towards change are vital outcomes to be considered in the change management process, as they impact on how the individual will respond to the change.
- Attitudes towards change are mediated by individuals' psychological attachment (job embeddedness), but not their organisational commitment.

- Individuals' sources of work stress, psychological attachment (job embeddedness) and attitudes towards change constitute a psychological profile that can be used to inform change management practices.
- The psychological profile constitutes *cognitive and interpersonal* behavioural elements that need to be considered in the design of change management practices.
- At a *cognitive level*, change practitioners need to design interventions that should include designing jobs with clear expectations and no ambiguity. There need to be deliberate ways to understand the job embeddedness (sacrifice) of every individual. Interventions should also include ways to build positive cognitive attitudes towards change.
- At an *interpersonal level*, individuals' job embeddedness (fit) and behavioural attitudes towards change should be managed in the change intervention.

*7.1.2.4 The fourth aim: To assess whether the biographical variables (age, gender, race and employment level) significantly moderate the relationship between sources of work stress and attitudes towards change*

The empirical results provided supportive evidence for research hypothesis Ha4. The overall conclusion shown below can be drawn:

*Conclusion: Age and gender significantly moderate the relationship between individuals' sources of work stress and their attitudes towards change dispositions.*

- Age significantly moderated the relationship between the individuals' sources of work stress (career advancement and relationships) and their attitudes towards change (behavioural) dispositions.
- Gender significantly moderated the relationship between the individuals' sources of work stress (job role and ambiguity, job tools and equipment) and their attitudes towards change (behavioural) dispositions.

Based on the findings, it can be concluded that for change management purposes, it is recommended that organisations consider the biographical characteristics, age and gender, because they significantly moderate the relationship between the individuals' sources of work stress and their attitudes towards change dispositions.

7.1.2.5 *The fifth aim: To assess whether the biographical variables functioned as significant moderating variables in the sources of work stress-attitudes towards change relation and whether they differ significantly regarding their sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change*

The empirical results provided supportive evidence for research hypothesis Ha5. The overall conclusion as shown below can be drawn:

*Conclusion: Significant differences exist between age, race and employment level of individuals' sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change dispositions*

- Older individuals have higher levels of work stress (job security, lack of job autonomy) experiences.
- Older individuals have higher levels of organisational commitment experience in terms of their affective and continuance commitment when compared to their counterparts.
- Older and younger individuals demonstrated higher levels of fit and sacrifice embeddedness experiences in the organisation.
- African black, White and Indian individuals demonstrated lower levels of organisational commitment experience, specifically with regard to their affective commitment when compared to other race groups in the organisation.
- African black, White and Indian individuals demonstrated higher levels of organisational commitment experience in terms of their continuance commitment to the organisation.
- Job security is a concern across all employment levels in the organisation, although executive level individuals showed slightly lower levels of job security concerns.
- Individuals at an upper administrative and administrative level demonstrated higher levels of organisational commitment experience in terms of their continuance commitment, when compared to executive level individuals.
- Positive cognitive and behavioural attitudes towards change were evident across the executive, middle management and upper administrative employment levels.

### **7.1.3 Conclusions relating to the central hypothesis**

The central hypothesis, as highlighted in chapter 1, stated that the relationship between sources of work stress, psychological attachment (job embeddedness) and attitudes towards change constituted a psychological profile for change interventions that could be used to inform organisational change practices in the FMCG work environment. This hypothesis further assumes that psychological attachment (organisational commitment and job embeddedness) could have a mediating effect on sources of work stress and change attitudes. Employees' biographical characteristics (age, gender, race and employment level) moderated the relationship between sources of work stress and attitudes towards change. Lastly, the biographical variables functioned as significant moderating variables in the sources of work stress-attitudes towards change relation and differed significantly regarding their sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. The literature review and empirical study provided supportive evidence for the central hypothesis.

### **7.1.4 Conclusions relating to the field of organisational psychology**

The findings derived from the literature review and empirical study contributes to change management practices, specifically in the field of organisational psychology. The literature review provided insights into how individuals' sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change contribute to change management practices in organisations. The literature also provided insights in terms of how the various theoretical models underpin and explain sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.

The empirical research findings provided valuable information on the relationship dynamics between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. These new findings could assist individuals with managing their sources of work stress, psychological attachment (job embeddedness) and attitudes towards change, which could promote successful change management in organisations. Hence organisations need to gain a crystallised understanding of these dynamics between the constructs and thus adapt their change management strategies accordingly.

The conclusions reveal that change practitioners, organisational psychologists and human resource practitioners should remain cognisant of the strengths and weaknesses of the four measuring instruments (SJS, OCQ, JEQ and ACQ) used in this research. Should the organisation decide to use these measuring instruments, trained professionals should be selected to administer, interpret and provide feedback to employees in order to ensure that fair, equitable outcomes are maintained in promoting the change strategy. The organisational psychologist needs to guide and give advice to employees who will promote decision making during the change that will benefit their own careers.

## **7.2 LIMITATIONS**

Limitations of the literature review and empirical study were identified and will be discussed below.

### **7.2.1 Limitations of the literature review**

The exploratory research conducted on the sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change in the South African FMCG context was limited because of the reasons outlined below:

- There is a paucity of research in the South African FMCG context and internationally on the relationship between the sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. Large amounts of research do exist pertaining to each of the constructs individually, but hardly any studies focus on the joint relationship between these constructs in terms of change management strategies.
- Only four variables (sources of work stress, psychological attachment: organisational commitment and job embeddedness, and attitudes towards change) were explored in this study. Hence the study could not provide a holistic indication of the psychological factors that potentially impact change management strategies in organisations.

### **7.2.2 Limitations of the empirical study**

The findings of the empirical study could be limited owing to the generalisability attributed to the characteristics and size of the sample and the psychometric properties of the SJS, OCQ, JEQ and ACQ.

- A sample size that was larger and more representative biographically would be favoured, because the majority of the sample were male, African black employees. Although this was a reflection of the demographics of the sample selected, it could not allow for a broader generalisation.
- The sample size was 350, which is not large enough to conclude whether a conclusive relationship exists between the sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change.
- The SJS (Coetzee & De Villiers, 2010), OCQ (Meyer & Allen, 1997), JEQ (Mitchell et al., 2001), ACQ (Dunham et al., 1989) were dependent on the participants' personal perceptions and self-awareness, which may have impacted on the validity of the research results. The subscales of the ACQ (affective attitude towards change) and OCQ (affective commitment) obtained low reliabilities thus limiting the interpretation of the results.
- Although these limitations exist, it could be established that this study has the potential for investigating the variables that influence the sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change constructs.

### **7.3 RECOMMENDATIONS**

#### **7.3.1 Recommendations for the field of organisational psychology**

Based on the research findings and significant relationships that developed, possible interventions in terms of change management strategies are recommended in Table 7.1.

Table 7.1

*Summary of Recommendations for Change Management Interventions*

<b>Behavioural elements</b>	<b>Core Empirically manifested variables based on the psychological profile</b>	<b>conclusions: manifested change</b> <b>Recommended change management practices</b>
Cognitive	<p>Change management may be influenced by job role and ambiguity as a source of work stress</p> <p>Change management may be influenced by cognitive attitudes towards change</p>	<ul style="list-style-type: none"> <li>• Provide jobs that have clear responsibilities and outputs required</li> <li>• Provide training and development opportunities</li> <li>• Managers should assess individuals on the job to determine where gaps are</li> <li>• Rigorous coaching plans would assist individuals to close identified gaps</li> <li>• Change practitioners need to communicate the benefits the change will bring to the individual</li> </ul>
Affective	<p>Change management may be influenced by job security</p> <p>Change management may be influenced by affective attitudes towards change</p>	<ul style="list-style-type: none"> <li>• Provide communication that will provide individuals with a clear understanding of how the change will affect their employment in the organisation</li> <li>• Provide reasonable timelines, that allow individuals to cope with the change</li> <li>• Provide proper direction for the individual that will allow for positive feelings to be created in the change process.</li> </ul>

Behavioural elements	Core conclusions: Empirically manifested variables based on the psychological change profile	Recommended change management practices
Conative	Change management may be influenced by job autonomy	<ul style="list-style-type: none"> <li>• Develop individuals in terms of their job expectations</li> <li>• Create an environment in which individuals can apply their skills in a practical manner to accomplish job goals, with minimal guidance</li> <li>• Offer further development opportunities</li> </ul>
Interpersonal	Change management may be influenced by fit embeddedness	<ul style="list-style-type: none"> <li>• Conduct proper assessments of individuals' fit</li> <li>• Evaluate how the change will impact individuals' fit</li> <li>• Provide a plan to align changes to individuals' fit</li> <li>• Provide one-on-one engagement sessions to promote positive behaviours</li> <li>• Provide the necessary resources and coaching</li> <li>• Advise individuals about the organisations employee assistance programmes</li> </ul>
Age	Individuals' age may influence career advancement, relationships and behavioural attitudes towards change	<ul style="list-style-type: none"> <li>• Establish opportunities for individuals in their career establishment phase that will assist with their career development support and relationship building</li> </ul>

<b>Behavioural elements</b>	<b>Core conclusions: Empirically manifested variables based on the psychological change profile</b>	<b>Recommended change management practices</b>
Gender	Males have higher levels of job role and ambiguity and behavioural attitudes towards change compared to females	<ul style="list-style-type: none"> <li>• Implement mentoring/coaching programmes for males</li> <li>• Introduce stress management opportunities for males</li> <li>• Provide clear job role guidance to increase employees' sense of well-being/ buy-in in the organisation</li> </ul>
Race	<p>African black, white and Indian participants have higher levels of affective commitment</p> <p>African black, Indian and other participants also showed higher levels of continuance commitment</p>	<ul style="list-style-type: none"> <li>• Introduce diversity programmes to promote commitment among the different race groups</li> <li>• Provide consistent organisational practices that are perceived as fair and equitable</li> </ul>
Employment level	<p>All employment levels have high levels of job security concerns</p> <p>The executive, upper administrative and administrative employment levels showed higher levels of continuance commitment</p> <p>All employment levels experienced higher levels of attitude towards change (cognitive and behavioural)</p>	<ul style="list-style-type: none"> <li>• Provide all individuals, across all employment levels, with clear, consistent communication about how the change will impact on their careers</li> <li>• Provide opportunities to discuss how the change will influence continuance commitment and develop a strategy to build continuance commitment</li> <li>• Formalise ways to build positive cognitive and behavioural attitudes towards change</li> <li>•</li> </ul>

In summary, the following recommendations can be made:

- Organisations endeavouring to create a working environment that minimises sources of work stress for the employee should provide job autonomy, clear job roles and responsibilities and communicate job security.
- Fit and sacrifice embeddedness needs to be properly assessed in the organisation. Change plans need to be grounded on the fit and sacrifice embeddedness of employees in the organisation. When change affects the fit and sacrifice of employees, alternatives need to be discussed and managed to keep employees embedded in their current or new jobs.
- Organisations need to make an effort to assist the affected employee to secure alternative employment, develop interviewee skills or even redesign the employee's curriculum vitae.
- Organisations need to clarify how the new changes will benefit employees. As such, if employees see the benefit of the change, they may start to form positive affective, cognitive and behavioural attitudes towards the change.
- The organisation needs to promote employee participation and involvement during change interventions; this may help the employees to buy into the change, thus promoting positive attitudes towards change.
- Organisations could develop a change management framework that could be used to help employees manage their sources of work stress, psychological attachment (job embeddedness) and attitudes towards change.
- The organisation also needs to consider biographical differences that exist in the organisation when managing change.
- The organisational psychologists in the organisation could utilise the SJS, OCQ, JEQ and ACQ to understand individuals better. This could inform a change framework to help employees cope with the change.

Assisting individuals to manage their sources of work stress, psychological attachment (job embeddedness) and attitudes towards change is a critical component of change management interventions. Knowledge of an individual's psychological change profile and the level of job embeddedness foci will foster an understanding of the behavioural elements that may potentially inform change management practices which, in turn, will influence successful change management outcomes.

### **7.3.2 Recommendations for future research**

Based on the conclusions and limitations, recommendations for future studies are made below.

There is currently a need for more research on sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change in a South African organisational context. Future research would be beneficial for change management purposes as it would assist change practitioners, organisational psychologists and human resource practitioners to manage change at organisational and, more importantly, at individual level.

This research provided partial insights into the various factors pertaining to the sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. Further research by organisations to assess the constructs of this study could yield enhanced change management strategies for organisations.

Employees may have different needs at various career stages, which impact on their psychological attachment (organisational commitment and job embeddedness) and attitudes towards change – hence the need for longitudinal studies to test the relationship between these constructs. The findings of such studies could assist change practitioners, organisational psychologists and human resource practitioners to create a strategy/framework that could help organisations to manage change more definitively.

Lastly, a larger sample that would be more representative biographically could be used for future research. This would enhance the generalisability of the findings and allow the researcher to make a well-adjusted representation of the various constructs.

### **7.4 EVALUATION OF THE STUDY**

This research investigated the existence of a relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. The results of this study suggest that there is a relationship between the variables of this study, which could provide valuable insights that could inform change management practices.

#### **7.4.1 Value added at a theoretical level**

From a theoretical perspective, the literature review suggested the existence of a relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. Increasing globalisation and competition in the FMCG work environment have compelled organisations to continuously implement change, thus turning their attention to change management strategies in the organisation. Managing sources of work stress, organisational commitment and job embeddedness and attitudes towards change have been highlighted as being paramount to successful change management in organisations. Moreover, differences in terms of biographical groups in the organisation need to be considered.

At a theoretical level, this research should be useful because of the relationship recognised between sources of work stress, psychological attachment (organisational commitment and job embeddedness), as a composite set of independent variables, and attitudes towards change, as a composite set of dependent variables. The literature review should add value and contribute significantly to the development of a theoretical psychological change profile for change management purposes.

In terms of the sources of work stress, the psychological change profile indicated a manifestation of job role and ambiguity, job tools and equipment, career advancement prospects, job security, job autonomy and relationships as being core to managing work stress during times of change for the employee (Coetzee & De Villiers, 2010). In terms of psychological attachment variables (organisational commitment and job embeddedness), the psychological change profile was an expression of affective, continuance, normative commitment, fit, links and sacrifice as key factors to managing change in organisations successfully. Moreover, exploring how employees' biographical characteristics influence the development and manifestation of these variables has been confirmed as useful in understanding change, especially in a diverse, multicultural context.

#### **7.4.2 Value added at an empirical level**

At an empirical level, this study has contributed to constructing an empirically tested psychological profile that could be used to inform change management interventions.

Significant relationships were evident between the variables, identifying sources of work stress, psychological attachment (job embeddedness) and attitudes towards change variables that influence the successful management of change both at an individual and organisational level. This is potentially a valuable study because to date there is no existing research on the relationship dynamics between sources of work stress, psychological attachment (job embeddedness) and attitudes towards change, especially in a South African FMCG change context.

In conclusion, this research is unique in its investigation of the overall and inter-relationships between the constructs of relevance to this study and an empirically tested psychological profile for change interventions. In a culturally diverse South African context, the results of this study could be valuable in managing change through identifying various biographical dynamics and needs.

#### **7.4.3 Value added at a practical level**

At a practical level, if change practitioners, organisational psychologists and human resource practitioners could equip themselves to understand the constructs of sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change in considering the psychological profile for change interventions, this could have a positive impact on change management practices in organisations. Organisations should be aware of the fact that employees have different/diverse needs in terms of sources of work stress, psychological attachment (job embeddedness) and attitudes towards change variables that influence the successful management of change. Every employee needs to be treated according to his or her own uniqueness to promote successful change management, which will have positive outcomes in terms of the psychological attachment (organisational commitment and job embeddedness) to the organisation. Also, this study highlighted how job factors and stress regarding these relate to openness to change, communication, participation, involvement, training and development when managing change. Change interventions should address these job-related needs.

In addition, where empirically tested significant relationships were evident, the findings could be beneficial for researchers in exploring the possibility of overcoming the effects of low psychological attachment (job embeddedness) in an attempt to keep employees engaged and retained during change interventions. This study has revealed valuable new insights that should contribute significantly to the growing body of knowledge on the psychological factors that influence change in organisations.

In conclusion, the researcher anticipates that the outcomes and findings of the study should provide beneficial and valuable insights into how the overall inter-relationships between sources of work stress, psychological attachment (job embeddedness) and attitudes towards change have contributed to constructing a psychological profile for change interventions. It is hoped that change practitioners, organisational psychologists and human resource practitioners can use the insights gained from this study to manage change. The diverse and multicultural South African context warrants a need to consider the prevalence of biographical differences. Lastly, practical recommendations were made for future research.

## **7.5 CHAPTER SUMMARY**

This chapter elucidated the conclusions of the study, from a theoretical and empirical perspective. The limitations of the study were also discussed, both in terms of the theoretical and empirical perspectives. Recommendations were made for future research to explore the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change. In conclusion, the study was integrated, highlighting the extent to which the results of the study provided support for the relationship between sources of work stress, psychological attachment (organisational commitment and job embeddedness) and attitudes towards change and how this contributed to constructing a psychological profile for change interventions.

In this chapter, the following research aim was achieved: to make recommendations for organisational change intervention practices and future research. This finalises the research project.

## REFERENCES

- Abraham, S. (2012). Relationship between stress and perceived self-efficacy among nurses in India. *Technology and Business Management*, 26(1), 28-30.
- Adams, G. A., Webster, J. R., & Buyarski, D. M. (2010). Development of an occupational embeddedness measure. *Career Development International*, 15(5), 420-436.
- Agocs, C. (1997). Institutionalized resistance to organizational change: Denial, inaction and repression. *Journal of Business Ethics*, 16(9), 917-931.
- Agrawal, S. (2012). HR framework for winning in economic upswing: Content analysis. *International Journal of Indian Culture and Business Management*, 5(5), 489-505.
- Albdour, A. A., & Altarawneh, I. I. (2014). Employee engagement and organizational commitment: Evidence from Jordan. *International Journal of Business*, 19(2), 193-212.
- Ali, I., Rehman, K. U., Ali, S. I., Yousaf, J., & Zia, M. (2010). Corporate social responsibility influences, employee commitment and organizational performance. *African Journal of Business Management*, 4(12), 2796-2801.
- Allen, M. W., Armstrong, D. J., Reid, M. F., & Riemenschneider, C. K. (2008). Factors impacting the perceived organizational support of IT employees. *Information and Management*, 45(8), 556–563.
- Allen, D. G., Bryant, P. C., & Vardaman, J. M. (2010). Retaining talent: Replacing misconceptions with evidence-based strategies. *The Academy of Management Perspectives*, 24(2), 48-64.
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63(1), 1-18.
- Allen, N. J., & Meyer, J. P. (1993). Organizational commitment: Evidence of career stage effects. *Journal of Business Research*, 26(1), 49–61.

- Allen, N. J., & Meyer, J. P. (1996). Affective, continuance, and normative commitment to the organization: An examination of construct validity. *Journal of Vocational Behaviour*, 49(3), 252–276.
- Amundson, N. (2006). Challenges for career interventions in changing contexts. *International Journal for Educational and Vocational Guidance*, 6(1), 3-14.
- Anastasi, A. (1976). *Psychological testing* (1<sup>st</sup> ed.). New York: MacMillan.
- Anghelache, V., & Bențea, C. C. (2012). Dimensions of teachers attitudes towards educational change. *Social and Behavioural Sciences*, 33(1), 598-602.
- Anderson, A. (2011). *Engaging resistance: How ordinary people successfully champion change* (1<sup>st</sup> ed.). Palo Alto, CA: Stanford University Press.
- Appelbaum, S. H., St-Pierre, N., & Glavas, W. (1998). Strategic organisational change: The role of leadership, learning, motivation and productivity. *Management Decision*, 36(5), 289–301.
- Armenakis, A. A., & Bedeian, A. G. (1999). Organizational change: A review of theory and research in the 1990s. *Journal of Management*, 25(3), 293–315.
- Arnold, J. & Randall, R. 2010. *Work psychology: Understanding human behaviour in the workplace* (5th ed.). Harlow, Essex, UK: Pearson Education.
- Baba, V. V., Tourigny, L., Wang, X., Lituchy, T., & Monserrat, S. I. (2013). Stress among nurses: A multi-nation test of the demand-control-support model. *Cross-Cultural Management: An International Journal*, 20(3), 301–320.
- Babbie, E. (2012). *The practice of social research* (13<sup>th</sup> ed.). Andover, UK: Cengage Learning.
- Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology*, 10(2), 170-180.

- Babbie, E., & Mouton, J. (2007). *The practice of social research* (1<sup>st</sup> ed.). New York, NY: Oxford University Press.
- Bakker, A. B. (2011). An evidence-based model of work engagement. *Current Directions in Psychological Science*, 20(4), 265-269.
- Bal, P. M., de Lange, A. H., Zacher, H., & Van der Heijden, B. I. (2013). A lifespan perspective on psychological contracts and their relations with organizational commitment. *European Journal of Work and Organizational Psychology*, 22(3), 279-292.
- Balakrishnamurthy, C., & Shankar, S. (2009). Impact of age and level of experience on occupational stress experienced by non-gazetted officers of the central reserve police force. *Industrial Psychiatry Journal*, 18(2), 81.
- Balogun, J., & Hailey, V. (2004). *Exploring strategic change* (2<sup>nd</sup> ed.). London, UK: Prentice Hall.
- Baron, R. A., & Greenberg, J. (1990). *Behaviour in organizations: Understanding and managing the human side of work* (3rd ed.). Boston, MA: Allyn and Bacon.
- Baruch, Y. (2004). Transforming careers: From linear to multidirectional career paths. Organizational and individual perspectives. *Career Development International*, 9(1), 58-73.
- Bashir, S., & Ramay, M. I. (2008). Determinants of Organizational Commitment A Study of Information Technology Professionals in Pakistan. *Institute of behavioral and applied management*, 7(4), 226-238.
- Baumol, W. J., Blinder, A. S., & Wolff, E. N. (1<sup>st</sup> ed.). (2003). *Downsizing in America: Reality, causes and consequences*. New York, NY: Russell Sage Foundation.
- Becker, H. S. (1960). Notes on the concept of commitment. *American Journal of Sociology*, 66(1), 32-42.

- Beck, N., & Wilson, J. (2000). Development of affective organizational commitment: A cross-sequential examination of change with tenure. *Journal of Vocational Behaviour*, 56, 114-136.
- Beer, M., & Nohria, N. (2000). Cracking the code of change. *Harvard Business Review*, 78(15), 133–141.
- Beetham, H., & Sharpe, R. (2013). *Rethinking pedagogy for a digital age: Designing for 21st century learning* (1<sup>st</sup> ed.). London, UK: Routledge.
- Bellou, V. (2010). Organizational culture as a predictor of job satisfaction: The role of gender and age. *Career Development International*, 15(1), 4-19.
- Bennett, H., & Durkin, M. (2000). The effects of organisational change on employee psychological attachment: An exploratory study. *Journal of Managerial Psychology*, 15(2), 126–146.
- Bentein, K., Vandenberghe, C., Vandenberg, R., & Stinglhamber, F. (2005). The role of change in the relationship between commitment and turnover: A latent growth modelling approach. *Journal of Applied Psychology*, 90(3), 468.
- Bernardi, R. A. (2011). The relationships among locus of control, perceptions of stress and performance. *Journal of Applied Business Research*, 13(4), 1–8.
- Bernerth, J. (2004). Expanding our understanding of the change message. *Human Resource Development Review*, 3(1), 36–52.
- Bhagat, R. S., Segovis, J. C., & Nelson, T. A. (2012). *Work stress and coping in the era of globalization* (1<sup>st</sup> ed.). New York, NY: Routledge.
- Biron, C., Gatrell, C., & Cooper, C. L. (2010). Autopsy of a failure: Evaluating process and contextual issues in an organizational-level work stress intervention. *International Journal of Stress Management*, 17(2), 135.
- Blankstein, A. M. (2010). *Failure is not an option: Six principles for making student success the only option* (2nd ed.). London, UK: Sage.

- Blickle, G., & Witzki, A. (2008). New psychological contracts in the world of work: Economic citizens or victims of the market? *Society and Business Review*, 3(2), 149–161.
- Blix, A. G., Cruise, R. J., Mitchell, B. M., & Blix, G. G. (1994). Occupational stress among university teachers. *Educational Research*, 36(2), 157–169.
- Bohner, G., & Dickel, N. (2011). Attitudes and attitude change. *Annual Review of Psychology*, 62(1), 391-417.
- Bond, T., & Fox, C. (2007). *Applying the Rasch model: Fundamental measurements in the human sciences* (2<sup>nd</sup> ed.). Hillsdale, NJ: Erlbaum.
- Boonstra, J.J. (2004). *Dynamics of organizational change and learning* (1<sup>st</sup> ed.). Chichester, UK: Wiley.
- Bouckenooghe, D. (2010). Positioning change recipients' attitudes toward change in the organizational change literature. *The Journal of Applied Behavioural Science*, 46(4), 500–531.
- Bordia, P., Restubog, S. L. D., Jimmieson, N. L., & Irmer, B. E. (2011). Haunted by the past: Effects of poor change management history on employee attitudes and turnover. *Group and Organization Management*, 36(2), 191–222.
- Bovey, W. H., & Hede, A. (2001). Resistance to organizational change: The role of cognitive and affective processes. *Leadership and Organization Development Journal*, 22(8), 372–382.
- Brashers, D. E., & Hogan, T. P. (2013). The appraisal and management of uncertainty: Implications for information-retrieval systems. *Information Processing and Management*, 49(6), 1241-1249.
- Brown, M., & Cudeck, R. (1993). *Alternative ways of assessing model fit*. In K. A. Bollen, & J. S. Long (Eds). *Testing structural equation models*. Newsbury Park, CA: Sage.
- Buchanan, B. (1974). Building organizational commitment: The socialization of managers in work organizations. *Administrative Science Quarterly*, 19, 533-546.

- Burke, R. J., & El-Kot, G. (2010). Work engagement among managers and professionals in Egypt: Potential antecedents and consequences. *African Journal of Economic and Management Studies*, 1(1), 42-60.
- Burke, W. W., & Litwin, G. H., [S.a.]. A causal model of organizational performance and change. *Journal of Management*, 18(3), 523–545.
- Burke, R., & Ng, E. (2006). The changing nature of work and organizations: Implications for human resource management. *Human Resource Management Review*, 16, 86–94.
- Burnes, B. (1996). No such thing as a one best way to manage organizational change. *Management Decision*, 34(10), 11–18.
- Burnes, B. (2004). Kurt Lewin and the planned approach to change: A re-appraisal. *Journal of Management Studies*, 41(6), 977–1002.
- Burton, J. P., Holtom, B. C., Sablinski, C. J., Mitchell, T. R., & Lee, T. W. (2010). The buffering effects of job embeddedness on negative shocks. *Journal of Vocational Behaviour*, 76(1), 42-51.
- Caldwell, R. (2003). Change leaders and change managers: Different or complementary. *Leadership and Organization Development Journal*, 24(5), 285-293.
- Caldwell, S. D. (2011). Bidirectional relationships between employee fit and organizational change. *Journal of Change Management*, 11(4), 401-419.
- Cameron, E., & Green, M. (2012). *Making sense of change management: A complete guide to the models tools and techniques of organizational change* (3<sup>rd</sup> ed.). Philadelphia, PA: Kogan Page.
- Canivet, C., Choi, B., Karasek, R., Moghaddassi, M., Staland-Nyman, C., & Östergren, P. O. (2013). Can high psychological job demands, low decision latitude, and high job strain predict disability pensions? A 12-year follow-up of middle-aged Swedish workers. *International Archives of Occupational and Environmental Health*, 86(3), 307-319.

- Cappelli, P. (2003). Will there really be a labour shortage? *Organizational Dynamics*, 32(3), 221-233.
- Carmeli, A., & Gefen, D. (2005). The relationship between work commitment models and employee withdrawal intentions. *Journal of Managerial Psychology*, 20(2), 63-86.
- Carnall, C. A. (1986). Managing strategic change: An integrated approach. *Long Range Planning*, 19(6), 105-115.
- Carnall, C. A. (1990). *Managing change in organisations* (1<sup>st</sup> ed.). London, UK: Prentice-Hall.
- Carter, M. Z., Armenakis, A. A., Feild, H. S., & Mossholder, K. W. (2013). Transformational leadership, relationship quality, and employee performance during continuous incremental organizational change. *Journal of Organizational Behavior*, 34(7), 942-958.
- Cartwright, S., & Cooper, C. L. (2002). *Asset: An organizational stress screening tool. The management guide*. Manchester, UK: RCL.
- Cervellione, K.L., Lee, Y., & Bonnano, G.A. (2009). Rasch modeling of the self-deception scale of the balanced inventory of desirable responding. *Educational and Psychological Measurement*, 69(3), 438-458.
- Chandola, T. (2010). *Stress at work*. Retrieved October 14, 2014, from <https://www.britac.ac.uk/policy/Stress-at-Work.cfm>.
- Chawla, A., & Kelloway, E. (2004). Predicting openness and commitment to change. *Leadership and Organization Development Journal*, 25(6), 485-498.
- Chiang, C. F. (2010). Perceived organizational change in the hotel industry: An implication of change schema. *International Journal of Hospitality Management*, 29(1), 157–167.
- Cho, D., & Son, J. (2012). Job embeddedness and turnover intentions: An empirical investigation of construction IT industries. *International Journal of Advanced Science and Technology*, 40, 101–110.

- Choi, M. (2011). Employees' attitudes toward organizational change: A literature review. *Human Resource Management, 50*(4), 479–500.
- Choi, M., & Ruona, W. E. (2011). Individual readiness for organizational change and its implications for human resource and organization development. *Human Resource Development Review, 10*(1), 46–73.
- Chreim, S. (2006). Managerial frames and institutional discourses of change: Employee appropriation and resistance. *Organization Studies, 27*(9), 1261-1287.
- Chungkham, H. S., Ingre, M., Karasek, R., Westerlund, H., & Theorell, T. (2013). *Factor structure and longitudinal measurement invariance of the demand control support model*. Retrieved September 21, 2014, from <http://www.plosone.org>
- Coetsee, L. (1999). From resistance to commitment. *Public Administration Quarterly, 23*(2), 204–222.
- Coetzee, M. (2005). *The fairness of affirmative action: An organizational justice perspective*. Unpublished doctoral thesis. Pretoria: University of South Africa.
- Coetzee, M. (2008). Psychological career resources and subjective work experience of working adults: A South African survey. *South African Journal of Industrial Psychology, 34*(2), 32-41.
- Coetzee, M. (2014). A psychological career resources framework for contemporary career development. In M. Coetzee (Ed.), *Psycho-social career meta-capacities: Dynamics of contemporary career development* (pp. 87–122). Dordrecht, the Netherlands: Springer International.
- Coetzee, M., & De Villiers, M. (2010). Sources of job stress, work engagement and career orientations of employees in a South African financial institution. *Southern African Business Review, 14*(1), 27-57.
- Coetzee, M., & Schreuder, A. M. G. (2008). A multi-cultural investigation of students' career anchors at a South African higher education institution. *South African Journal of Labour Relations, 32*(2), 1-21.

- Coetzee, M., Bergh, Z., & Schreuder, A. (2010). Subjective work experiences: Exploring the influence of career orientations, psychological career resources and factors of job/ career satisfaction/ dissatisfaction. (Unpublished research report). University of South Africa, Pretoria.
- Coetzee, M., Schreuder, A. M. G., & Tladinyane, R. (2007). Organisational commitment and its relation to career anchors. *Southern African Business Review*, 11(1), 65–86.
- Coetzee, C. J. H., & Stanz, K. J. (2007). Barriers-to-change in a governmental service delivery type organisation. *South African Journal of Industrial Psychology*, 33(2), 76–83.
- Coetzer, C. F., & Rothmann, S. (2007). Job demands, job resources and work engagement of employees in a manufacturing organisation. *Southern African Business Review*, 11, 17–32.
- Cohen A. (1991). Career stage as a moderator of the relationships between organizational commitment and its outcomes: A meta-analysis. *Journal of Occupational Psychology*, 64, 253–268.
- Cohen, J. (1992). Quantitative methods in psychology: A power primer. *Psychological Bulletin*, 112(1), 153–159.
- Cohen, A. (1995). An examination of the relationships between work commitment and non-work domains. *Human Relations*, 48, 239–263.
- Cohen, A. (2014). Organisational commitment research: Past, present and future. In *Areas of vocational education research* (pp. 261–274). Berlin & Heidelberg, Germany: Springer.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression for the behavioural sciences* (1st ed.). New Jersey: Hillsdale.
- Cohen, J., Cohen, P., West, S., & Aiken, L. (2003). *Applied multiple regression/correlation analysis for the behavioural sciences* (3<sup>rd</sup> ed.). Hillsdale, NJ: Lawrence Erlbaum.

- Colarelli, S., & Bishop, R. (1990). Career commitment. *Group and Organizational Studies*, 15(2), 158–176.
- Comfort, J., & Franklin, P. (2011). *The mindful international manager: How to work effectively across cultures* (1<sup>st</sup> ed.). London, UK: Kogan Page.
- Conway, E., & Monks, K. (2008). HR practices and commitment to change: An employee-level analysis. *Human Resource Management Journal*, 18(1), 72–89.
- Cordery, J., Sevastos, P., Mueller, W., & Parker, S. (1993). Correlates of employee attitudes toward functional flexibility. *Human Relations*, 46(6), 705–723.
- Cox, T. (1978). *Stress* (1<sup>st</sup> ed.). London, UK: Macmillan.
- Cox, T., & Ferguson, E. (1991). *Individual differences, stress and coping*. Retrieved from [www.psycnet.apa.org](http://www.psycnet.apa.org).
- Cox, T., Griffiths, A., Barlowe, C., Randall, R., Thomson, L., & Rial-Gonzalez, E. (2000). *Organisational interventions for work stress: A risk management approach*. Retrieved June 15, 2014, from <http://www.tandfonline.com>
- Cooper, C. L., & Cartwright, S. (1997). An intervention strategy for workplace stress. *Journal of Psychosomatic Research*, 43(1), 7–16.
- Cooper, C. L., Kirkcaldy, B. D., & Brown, J. (1994). A model of job stress and physical health: The role of individual differences. *Personality and Individual Differences*, 16(4), 653–655.
- Coopmans, J. M. W. (2007). *Stress-related causes of presenteeism amongst South African managers*. Retrieved May 16, 2014, from [www.repository.up.ac.za](http://www.repository.up.ac.za).
- Cooren, F., Kuhn, T., Cornelissen, J. P., & Clark, T. (2011). Communication, organizing and organization: An overview and introduction to the special issue. *Organization Studies*, 32(9), 1149-1170.

- Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology, 95*(5), 834-848.
- Creemers, B. (2011). *Improving quality in education: Dynamic approaches to school improvement* (1<sup>st</sup> ed.). New York, NY: Routledge.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage.
- Creswell, J. (2013). *Research design: Qualitative, quantitative, mixed method approaches* (4<sup>th</sup> ed.). London, UK: Sage.
- Christensen, K., & Schneider, B. L. (2010). *Workplace flexibility: Realigning 20th-century jobs for a 21st-century workforce* (1<sup>st</sup> ed.). Ithaca, NY: ILR Cornell University Press.
- Chrisopoulos, S., Dollard, M. F., Winefield, A. H., & Dormann, C. (2010). Increasing the probability of finding an interaction in work stress research: A two-wave longitudinal test of the triple-match principle. *Journal of Occupational and Organizational Psychology, 83*(1), 17–37.
- Cummings, T. G., & Cooper, C. L. (1979). A cybernetic framework for studying occupational stress. *Human Relations, 32*(5), 395-418.
- Dahl, M. S. (2010). *The cancer of organizational change*. Retrieved October 10, 2014, from <http://msdahl.com/category/research/>
- Dahl, M. S. (2011). Organizational change and employee stress. *Management Science, 57*(2), 240-256.
- Darling, P. (1993). Getting results: The trainer's skills. *Management Development Review, 6* (5), 25-29.
- Darwish, Y. (2000). Organizational commitment and job satisfaction as predictors of attitudes toward organization change in a non-western setting. *Personnel Review, 29*(5), 6-25.

- Dawley, D., Houghton, J. D., & Bucklew, N. S. (2010). Perceived organizational support and turnover intention: The mediating effects of personal sacrifice and job fit. *The Journal of Social Psychology, 150*(3), 238-257.
- Dawson, P. (2003). *Reshaping change: A processual perspective* (1<sup>st</sup> ed.). London, UK: Psychology Press.
- De Board, R. (1983). *Counselling skills* (1<sup>st</sup> ed.). Aldershot, UK: Gower.
- De Bruyn, G. P., & Taylor, N. (2006). *Sources of work stress inventory: Technical manual. Johannesburg*. Retrieved January 10, 2014, from [www.jvrpsychometrics.co.za](http://www.jvrpsychometrics.co.za).
- De Coninck, J. B., & Bachmann, D. P. (2011). Organizational commitment and turnover intentions of marketing managers. *Journal of Applied Business Research, 10*(3), 87–95.
- De Cuyper, N., & De Witte, H. (2011). The management paradox: Self-rated employability and organizational commitment and performance. *Personnel Review, 40*(2), 152–172.
- Demers, R., Forrer, S. E., Leibowitz, Z., & Cahill, C. (1996). Commitment to change. *Training and Development, 50*(8), 22–70.
- Demerouti, E., & Bakker, A. B. (2011). The job demands-resources model: Challenges for future research. *South African Journal of Industrial Psychology, 37*(2), 1–9.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology, 86*(3), 499-512.
- Denning, S. (2010). *The leader's guide to radical management: Reinventing the workplace for the 21st century*. Retrieved October 11, 2014, from <http://onlinelibrary.wiley.com>.
- Dewe, P. J., O'Driscoll, M. P., & Cooper, C. L. (2010). *Coping with work stress: A review and critique* (1<sup>st</sup> ed.) New York, NY: Wiley.

- Dewe, P., & Trenberth, L. (2012). Exploring the relationships between appraisals of stressful encounters and the associated emotions in a work setting. *Work and Stress*, 26(2), 161-174.
- De Wit, B., & Meyer, R. (2010). *Strategy process, content, context: An international perspective* (1<sup>st</sup> ed.). Andover, UK: Cengage Learning.
- De Vos, G., Buelens, M., & Bouckennooghe, D. (2007). Contribution of content, context, and process to understanding openness to organizational change: Two experimental simulation studies. *The Journal of Social Psychology*, 147(6), 607-629.
- De Vos, A. S., Strydom, H., Fouché, C. B., & Delpont, C. S. L. (2011). *Research at grass roots: For the social sciences and human service professions* (4<sup>th</sup> ed.). Pretoria: Van Schaik.
- Dixon, N. (1980). Humour: A cognitive alternative to stress. In I. Sarason, & C. Spielberger, *Stress and anxiety* (1<sup>st</sup> ed.). Washington, DC: Hemisphere.
- Döckel, A., Basson, J. S., & Coetzee, M. (2006). The effect of retention factors on organisational commitment: An investigation of high technology employees. *South African Journal of Human Resource Management*, 4(2), 20-28.
- Doyle, M. (2002). From change novice to change expert: Issues of learning, development and support. *Personnel Review*, 31(4), 465-481.
- Dua, J. K. (1996). The presence, nature and effects of job stress on physical and psychological health at a large Australian university. *Journal of Educational Administration*, 34, 73–86.
- Duke, D. L. (2011). *The challenges of school district leadership* (1<sup>st</sup> ed.). New York, NY: Routledge.
- Dunham, R. B., Grube, J. A., Gardner, D. G., Cummings, L. L., & Pierce, J. L. (1989). *The development of an attitude toward change instrument*. Retrieved February 9, 2014, from <http://www.jstor.org>.
- Dunphy, D., Benn, S., & Griffiths, A. (2003). *Organizational change for corporate sustainability* (1<sup>st</sup> ed.). London, UK: Routledge.

- Eby, L. T., Adams, D. M., Russell, J. E., & Gaby, S. H. (2000). Perceptions of organizational readiness for change: Factors related to employees' reactions to the implementation of team-based selling. *Human Relations, 53*(3), 419-442.
- Edmonstone, J. (1995). Managing change: An emerging new consensus. *Health Manpower Management, 21*(1), 16-19.
- Eisenberger, R., Karagonlar, G., Stinglhamber, F., Neves, P., Becker, T. E., Gonzalez-Morales, M. G., et al. (2010). Leader-member exchange and affective organizational commitment: The contribution of supervisor's organizational embodiment. *Journal of Applied Psychology, 95*(6), 1085-1103.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71*(3), 500–507.
- El-Ella, N. A., Bessant, J., & Pinkwart, A. (2015). Changing change management: The new innovation imperative. In *Management of permanent change* (1<sup>st</sup> ed). Wiesbaden, Germany: Springer Fachmedien.
- El-Farra, M. M., & Badawi, M. B. (2012). Employee attitudes toward organizational change in the coastal municipalities' water utility in the Gaza Strip. *EuroMed Journal of Business, 7*(2), 161–184.
- Elias, S. M. (2009). Employee commitment in times of change: Assessing the importance of attitudes toward organizational change. *Journal of Management, 35*(1), 37–55.
- Elrod, P. D., & Tippett, D. D. (2002). The death valley of change. *Journal of Organizational Change Management, 15*(3), 273–291.
- Ericsson, D. (2011). Demand chain management: The evolution. *The Journal of ORSSA, 27*(1), 45-81.
- Erwin, D. G., & Garman, A. N. (2010). Resistance to organizational change: Linking research and practice. *Leadership and Organization Development Journal, 31*(1), 39-56.

- Feldman, D. C., & Ng, T. W. (2007). Careers: Mobility, embeddedness, and success. *Journal of Management*, 33(3), 350–377.
- Felps, W., Mitchell, T. R., Hekman, D. R., Lee, T. W., Holtom, B. C., & Harman, W. S. (2009). Turnover contagion: How co-workers' job embeddedness and job search behaviours' influence quitting. *Academy of Management Journal*, 52(3), 545–561.
- Ferreira, N. (2009). *The relationship between psychological career resources and organisational commitment*. Unpublished master's dissertation. Pretoria: University of Pretoria.
- Ferreira, N., & Coetzee, M. (2010). Psychological career resources and organisational commitment: Exploring socio-demographic differences. *South African Journal of Labour Relations*, 34(2), 25-41.
- Fields, D. (2002). *Taking the measure of work: A guide to validate scales for organizational research and diagnosis* (1<sup>st</sup> ed.). Thousand Oaks, CA: Sage.
- Fink, M., Lang, R., & Harms, R. (2011). Local responses to global technological change: Contrasting restructuring practices in two rural communities in Austria. *Technological Forecasting and Social Change*, 80(2), 243-252.
- Fisher, S. (1994). *Stress in academic life: The mental assembly line* (1<sup>st</sup> ed.). Buckingham, UK: Open University Press.
- Florio, G. A., Donnelly, J. P., & Zevon, M. A. (1998). The structure of work-related stress and coping among oncology nurses in high-stress medical settings: A transactional analysis. *Journal of Occupational Health Psychology*, 3(3), 227-242.
- Folger, R., & Skarlicki, D. P. (1999). Unfairness and resistance to change: Hardship as mistreatment. *Journal of Organizational Change Management*, 12(1), 35-50.
- Foster, R. D. (2010). Resistance, justice, and commitment to change. *Human Resource Development Quarterly*, 21(1), 3-39.
- Freeman, R. E. (2010). *Strategic management: A stakeholder approach* (eds.). London, UK: Cambridge University Press.

- Frese, M., & Zapf, D. (1999). On the importance of the objective environment in stress and attribution theory: Counterpoint to Perrewe and Zellars. *Journal of Organizational Behaviour*, 20(5), 761-765.
- French, R., Rayner, C., Rees, G., & Rumbles, S. (2008). *Organizational behaviour* (1<sup>st</sup> ed.). Chichester, UK: Wiley.
- Frenkel, S., & Sanders, K. (2007). Explaining variations in co-worker assistance in organizations. *Organization Studies*, 28(6), 797–823.
- Friday, E., & Friday, S. S. (2003). Managing diversity using a strategic planned change approach. *Journal of Management Development*, 22(10), 863-880.
- Friesl, M., Sackmann, S. A., & Kremser, S. (2011). Knowledge sharing in new organizational entities: The impact of hierarchy, organizational context, micro-politics and suspicion. *Cross Cultural Management: An International Journal*, 18(1), 71–86.
- Fugate, M., Prussia, G. E., & Kinicki, A. J. (2012). Managing employee withdrawal during organisational change: The role of threat appraisal. *Journal of Management*, 38(3), 890-914.
- Gagné, M., & Bhave, D. (2011). Autonomy in the workplace: An essential ingredient to employee engagement and well-being in every culture. In *Human autonomy in cross-cultural context* (pp. 163-187). Dordrecht, the Netherlands: Springer.
- Galletta, M., Portoghese, I., & Battistelli, A. (2011). Intrinsic motivation, job autonomy and turnover intention in the Italian healthcare: the mediating role of affective commitment. *Journal of Management Research*, 3(2), 1-19.
- Garson, G.D. (2008). *Structural equation modeling: Statnotes*, PA75. Retrieved November 20, 2014, from <http://faculty.chass.ncsu.edu/garson/PA765/structur.html>.
- Gellatly, I. R., Hunter, K. H., Currie, L. G., & Irving, P. G. (2009). HRM practices and organizational commitment profiles. *The International Journal of Human Resource Management*, 20(4), 869-884.
- Glazer, S., & Kruse, B. (2008). The role of organizational commitment in occupational stress models. *International Journal of Stress Management*, 15(4), 329-344.

- Glensor, M. (2010). *Organisational change management in South Africa: The development of a change framework and scorecard in a mergers and acquisitions environment*. Retrieved July 15, 2014, from <http://uir.unisa.ac.za>
- Gong, Y., Chow, I. H. S., & Ahlstrom, D. (2011). Cultural diversity in China: Dialect, job embeddedness, and turnover. *Asia Pacific Journal of Management*, 28(2), 221-238.
- Govender, P., Moodley, S., & Parumasur, S. B. (2005). The management of change at selected higher education institutions: An exploration of the critical ingredients for effective change management. *South African Journal of Industrial Psychology*, 31(1), 78-86.
- Grandey, A. A., & Cropanzano, R. (1999). The conservation of resources model applied to work-family conflict and strain. *Journal of Vocational Behaviour*, 54(2), 350-370.
- Grant, P. (1996). Supporting transition: How managers can help themselves and others during times of change. *Organizations and People*, 3(1), 4-6.
- Gray-Stanley, J. A., & Muramatsu, N. (2011). Work stress, burnout, and social and personal resources among direct care workers. *Research in Developmental Disabilities*, 32(3), 1065-1074.
- Griffin, M. L., Hogan, N. L., Lambert, E. G., Tucker-Gail, K. A., & Baker, D. N. (2010). Job involvement, job stress, job satisfaction, and organizational commitment and the burnout of correctional staff. *Criminal Justice and Behaviour*, 37(2), 239-255.
- Griffin, R. W., & Moorehead, G. (2011). *Organizational behaviour: Managing people and organizations* (1<sup>st</sup> ed.). Andover, UK: Cengage.
- Guimaraes, T., & Armstrong, C. (1998). Empirically testing the impact of change management effectiveness on company performance. *European Journal of Innovation Management*, 1(2), 74-84.
- Gupta, A. K., & Govindarajan, V. (1984). Business unit strategy, managerial characteristics, and business unit effectiveness at strategy implementation. *Academy of Management Journal*, 27(1), 25-41.

- Gutierrez, A. P., Candela, L. L., & Carver, L. (2012). The structural relationships between organizational commitment, global job satisfaction, developmental experiences, work values, organizational support, and person-organization fit among nursing faculty. *Journal of Advanced Nursing*, 68(7), 1601-1614.
- Hackman, J. R., & Oldham, G. R. (1980). *Work redesign* (1<sup>st</sup> ed.). Boston, MA: Addison-Wesley.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7<sup>th</sup> ed.). London, UK: Pearson Prentice-Hall.
- Halbesleben, J. R. (2010). *A meta-analysis of work engagement: Relationships with burnout, demands, resources, and consequences* (1<sup>st</sup> ed.). New York, NY: Psychology Press.
- Hambrick, D. C., & Finkelstein, S. (1987). Managerial discretion: A bridge between polar views of organizational outcomes. *Research in Organisational Behaviour*, 9, 369-406.
- Hancock, G. R., & Lawrence, F. R. (2006). Using latent growth models to evaluate longitudinal change. In *Structural equation modelling: A second course* (pp. 171-196).
- Harvey, T. (2010). *Resistance to change: a guide to harnessing its positive power* (1<sup>st</sup> ed.). Lanham, MD: Roman & Littlefield.
- Hasmi, H., Gross, M. J. & Scott-Young, C. (2013). *Exploring migrants' leisure participation and the mediating role of place attachment and community embeddedness on acculturative stress*. Retrieved September 21, 2014, from <http://search.informit.com>
- Hayes, R. (1986). Gender non-traditional or sex atypical or gender dominant or research: Are we measuring the same thing? *Journal of Vocational Behavior*, 29(1), 79-88.
- Hellgren, J., Sverke, M., & Isaksson, K. (1999). A two-dimensional approach to job insecurity: Consequences for employee attitudes and well-being. *European Journal of Work and Organizational Psychology*, 8(2), 179-195.
- Hellriegel, D., Slocum, J. W., & Woodman, R. W. (2001). *Organizational behaviour* (9th ed.) Cincinnati, OH: South-Western.

- Hemp, P. (2004). *Presenteeism: At work-but out of it*. Retrieved February 15, 2014, from [www.hbr.org](http://www.hbr.org).
- Hernandez, B., Stanley, B., & Miller, L. (2014). Job Embeddedness and Job Engagement: Recommendations for a Supportive Social Work Environment: Human Service Organizations. *Management, Leadership & Governance*, 38(4), 336-347.
- Herold, D. M., Fedor, D. B., Caldwell, S., & Liu, Y. (2008). The effects of transformational and change leadership on employees' commitment to a change: A multilevel study. *Journal of Applied Psychology*, 93(2), 346-357.
- Herscovitch, L., & Meyer, J. P. (2002). Commitment to organizational change: Extension of a three-component model. *Journal of Applied Psychology*, 87(3), 474-487.
- Higgs, M., & Rowland, D. (2002). Does it need emotional intelligence to lead change? *Journal of General Management*, 27(3), 62-76.
- Hirschhorn, L. (2002). Campaigning for change. *Harvard Business Review*, 80(7), 98-106.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513-524.
- Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, 6(4), 307-324.
- Hobfoll, S. E. (2011). Conservation of resource caravans and engaged settings. *Journal of Occupational and Organizational Psychology*, 84(1), 116-122.
- Hobfoll, S. E., Johnson, R. J., Ennis, N., & Jackson, A. P. (2003). Resource loss, resource gain, and emotional outcomes among inner city women. *Journal of Personality and Social Psychology*, 84(3), 632-643.
- Hodge, G., Anthony, W., & Gales, L. (2002). *Organisation theory: A strategic approach* (6<sup>th</sup> ed.). London, UK: Prentice-Hall.

- Hodgkinson, A. (1999). *Employee involvement and participation in the organizational change decision* (Unpublished paper). University of Wollongong, New South Wales, Australia.
- Holt, D. T., Armenakis, A. A., Feild, H. S., & Harris, S. G. (2007). Readiness for organizational change the systematic development of a scale. *The Journal of applied behavioral science*, 43(2), 232-255.
- Holtom, B. C., & Inderrieden, E. J. (2006). Integrating the unfolding model and job embeddedness model to better understand voluntary turnover. *Journal of Managerial Issues*, 18, 435–452.
- Holtom, B. C., Mitchell, T. R., & Lee, T. W. (2006). Increasing human and social capital by applying job embeddedness theory. *Organisational Dynamics*, 35(4), 316–331.
- Holroyd, K. A., & Lazarus, R. S. (1982). *Stress, coping and somatic adaptation: Handbook of stress theoretical and clinical aspects* (1<sup>st</sup> ed.). New York, NY: Free Press.
- Hon, A. H., Bloom, M., & Crant, J. M. (2014). Overcoming resistance to change and enhancing creative performance. *Journal of Management*, 40(3), 919–941.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modelling: A Multidisciplinary Journal*, 6(1), 1-55.
- Hu, Q., Schaufeli, W. B., & Taris, T. W. (2011). The job demands-resources model: An analysis of additive and joint effects of demands and resources. *Journal of Vocational Behaviour*, 79(1), 181-190.
- Hubbard, N.(1999). *Acquisition, strategy and implementation* (1<sup>st</sup> ed.). London, UK: Macmillan.
- Imam, A., Raza, A., Shah, F. T., & Raza, H. (2013). Impact of job satisfaction on facet of organizational commitment (affective, continuance and normative commitment): A study of banking sector employees of Pakistan. *World Applied Sciences Journal*, 28(2), 271–277.

- Iverson, R. D. (1996). Employee acceptance of organizational change: The role of organizational commitment. *International Journal of Human Resource Management*, 7(1), 122-149.
- Jackson, P. B., Williams, D. R., Stein, D. J., Herman, A., Williams, S. L., & Redmond, D. L. (2010). Race and psychological distress: The South African stress and health study. *Journal of Health and Social Behaviour*, 51(4), 458-477.
- Jaffe, D. T., & Scott, C. D. (1998). Reengineering in practice: Where are the people, where is the learning? *The Journal of Applied Behavioural Science*, 34(3), 250-267.
- Janavaras, B., Kuzma, J., & Thiewes, H. (2011). College of business majors' perceptions toward globalization: An empirical study. *Journal of College Teaching and Learning*, 5(3), 41-50.
- Jaros, S. J. (1995). An assessment of Meyer and Allen's (1991) three-component model of organizational commitment and turnover intentions. *Academy of Management Proceedings*, 95(1), 317-321.
- Jaros, S. (2010). Commitment to organizational change: A critical review. *Journal of Change Management*, 10(1), 79-108.
- Jiang, K., Liu, D., McKay, P. F., Lee, T. W., & Mitchell, T. R. (2012). When and how is job embeddedness predictive of turnover: A meta-analytic investigation. *Journal of Applied Psychology*, 97(5), 1077.
- Johnson, A. E., Sachau, D. A., & Englert, D. (2010). Organizational and occupational embeddedness of federal law enforcement personnel. *Journal of Police and Criminal Psychology*, 25(2), 75-89.
- Joo, B. K. B., & Park, S. (2010). Career satisfaction, organizational commitment, and turnover intention: The effects of goal orientation, organizational learning culture and developmental feedback. *Leadership and Organization Development Journal*, 31(6), 482-500.

- Joo, B. K., & Shim, J. H. (2010). Psychological empowerment and organizational commitment: The moderating effect of organizational learning culture. *Human Resource Development International*, 13(4), 425-441.
- Jones, G. R. (2010). *Organizational theory, design, and change* (1<sup>st</sup> ed.). Upper Saddle River, NJ: Prentice Hall.
- Kalyal, H. J., Berntson, E., Baraldi, S., Näswall, K., & Sverke, M. (2010). The moderating role of employability on the relationship between job insecurity and commitment to change. *Economic and Industrial Democracy*, 31(3), 327–344.
- Kanter, R.M. (1968). Commitment and social organization: A study of commitment mechanisms in utopian communities. *American Sociological Review*, 3(4), 499-517.
- Karatepe, O. M. (2012). The effects of co-worker and perceived organizational support on hotel employee outcomes: The moderating role of job embeddedness. *Journal of Hospitality and Tourism Research*, 36(4), 495-516.
- Karatepe, O. M., & Ngeche, R. N. (2012). Does job embeddedness mediate the effect of work engagement on job outcomes: A study of hotel employees in Cameroon. *Journal of Hospitality Marketing and Management*, 21(4), 440-461.
- Karatepe, O. M., & Shahriari, S. (2014). Job embeddedness as a moderator of the impact of organisational justice on turnover intentions: A study in Iran. *International Journal of Tourism Research*, 16(1), 22-32.
- Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24(2), 285-308.
- Kassim, J. M., & Abdullah, J. B. (2011). Promoting learning environment and attitudes towards change among secondary school principals in Pahang Malaysia: Teachers perceptions. *Procedia-Social and Behavioural Sciences*, 28, 45-49.
- Kath, L. M., Stichler, J. F., Ehrhart, M. G., & Sievers, A. (2013). Predictors of nurse manager stress: A dominance analysis of potential work environment stressors. *International Journal of Nursing Studies*, 50(11), 1474-1480.

- Kelloway, E. K., & Barling, J. (1991). Job characteristics, role stress and mental health. *Journal of Occupational Psychology*, 64(4), 291-304.
- Keng, F. T., Ruedy, N., Johnson, H. H., & Avolio, B. J. (2013). The ethics of change: The effects of authoritarian and ethical leadership on organizational change. *Academy of Management Proceedings*, 13(1), 175-190.
- Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of behavioural research* (4<sup>th</sup> ed.). Singapore: Wadsworth-Thomson Learning.
- Khatibi, A., Asadi, H., & Hamidi, M. (2009). The relationship between job stress and organizational commitment in National Olympic and Paralympic Academy. *World Journal of Sport Sciences*, 2(4), 272-278.
- Kim, T. G., Hornung, S., & Rousseau, D. M. (2011). Change-supportive employee behaviour: Antecedents and the moderating role of time. *Journal of Management*, 37(6), 1664-1693.
- Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology*, 102(3), 741-756.
- Kline, R.B. (2010). *Principles and practices of structural equation modelling* (1<sup>st</sup> ed.). New York, NY: Guilford Press.
- Ko, Y. K. (2011). Group cohesion and social support of the nurses in a special unit and a general unit in Korea. *Journal of Nursing Management*, 19(5), 601-610.
- Kobasa, S. C., Maddi, S. R., & Kahn, S. (1982). Hardiness and health: A prospective study. *Journal of Personality and Social Psychology*, 42(1), 168-177.
- Kolakowski, L. (1972). *Positivist science* (1<sup>st</sup> ed.). Harmondsworth, UK: Penguin.
- Kotter, J. P. (1996). *Leading change: Why transformation efforts fail*. Retrieved August 10, 2014, from <http://www.power-projects.com/LeadingChange.pdf>.
- Kotter, J. P. (2008). *A sense of urgency* (1<sup>st</sup> ed.). Boston, MA: Harvard Business Press.

- Kraimer, M. L., Seibert, S. E., Wayne, S. J., Liden, R. C., & Bravo, J. (2011). Antecedents and outcomes of organizational support for development: The critical role of career opportunities. *Journal of Applied Psychology, 96*(3), 485-500.
- Kramer, U. (2010). Coping and defence mechanisms: What's the difference second act. *Psychology and Psychotherapy: Theory, Research and Practice, 83*(2), 207–221.
- Krauss, S. E. (2005). Research paradigms and meaning making: A primer. *The Qualitative Report*. Retrieved March 16, 2014, from <http://www.nova.edu/ssss/QR/QR10-4/krauss.pdf>.
- Kreitner, R., & Kinicki, A. (2004). *Organizational behaviour* (6<sup>th</sup> ed.). Boston, MA: McGraw-Hill.
- Kubler-Ross, E. (1969). *On death and dying* (1<sup>st</sup> ed). New York, NY: Touchstone.
- Kursunoglu, A., & Tanriogen, A. (2009). The relationship between teachers' perceptions towards instructional leadership behaviours of their principles and teachers' attitudes towards change. *Social and Behavioural Sciences, 1* (1), 252–258.
- Kyei-Poku, I. (2006). *Satisfaction with a merger its impact on organizational commitment and turnover intentions: Canadian evidence*. Retrieved January 17, 2014, from <http://www.jstor.org>.
- Labuschagne, M., Bosman, J. & Buitendach, J. H. (2005). Job insecurity, job satisfaction and work locus of control of employees in a government organization. *South African Journal of Human Resource Management, 3*(2), 26-35.
- Lai, G., Lin, N., & Leung, S. Y. (1998). Network resources, contact resources, and status attainment. *Social Networks, 20*(2), 159-178.
- Landen, S. M., & Wang, C. C. D. (2010). Adult attachment, work cohesion, coping, and psychological well-being of fire fighters. *Counselling Psychology Quarterly, 23*(2), 143-162.
- Latha, K. S., & Prabhu, S. (2012). Occupational stress and coping among nurses in a super specialty hospital. *Journal of Health Management, 14*(4), 467-479.

- Latif, J. (2010). *An investigation into the moderating effects of hardiness between performance monitoring and life satisfaction in a call centre environment*. Unpublished master's dissertation. Johannesburg: University of Witwatersrand.
- Lau, C. M., & Woodman, R. W. (1995). Understanding organizational change: A schematic perspective. *Academy of Management Journal*, 38(2), 537–554.
- Lau, C., Tse, D., & Zhou, N. (2002). Institutional forces and organizational culture in China: Effects on change schemas, firm commitment, and job satisfaction. *Journal of International Business Studies*, 33(3), 533–550.
- Lazarus, R. S. (1994). *Appraisal the long and the short of it the nature of emotion: Fundamental questions* (1<sup>st</sup> ed.). New York, NY: Oxford University Press.
- Lazarus, R. S. (1999). *Stress and emotion: A new synthesis* (1<sup>st</sup> ed.). New York, NY: Springer.
- Lazarus, R. S. (2013). *Fifty years of the research and theory of RS Lazarus: An analysis of historical and perennial issues* (1<sup>st</sup> ed.). New York, NY: Psychology Press.
- Lazarus, R., & Folkman, S. (1984). If it changes it must be a process: Study of emotion and coping during three stages of college examination. *Journal of Personality and Social Psychology*, 48(1), 150-170.
- Lazarus, R. S., & Folkman, S. (1987). Transactional theory and research on emotions and coping. *European Journal of Personality*, 1(3), 141-169.
- Lee, T. W., & Maurer, S. (1999). The effects of family structure on organizational commitment, intention to leave and voluntary turnover. *Journal of Managerial Issues*, 11(4), 493-513.
- Lee, T. W., & Mitchell, T. R. (1994). An alternative approach: The unfolding model of voluntary employee turnover. *Academy of Management Review*, 19(1), 51-89.
- Lee, T. W., Mitchell, T. R., Sablinski, C. J., Burton, J. P., & Holtom, B. C. (2004). The effects of job embeddedness on organizational citizenship, job performance, volitional absences, and voluntary turnover. *Academy of Management Journal*, 47(5), 711-722.

- Leong, C. S., Furnham, A., & Cooper, C. L. (1996). The moderating effect of organizational commitment on the occupational stress outcome relationship. *Human Relations*, 49(10), 1345-1363.
- Lerner, D., Adler, D. A., Rogers, W. H., Chang, H., Lapitsky, L., McLaughlin, T., et al. (2010). Work performance of employees with depression: The impact of work stressors. *American Journal of Health Promotion*, 24(3), 205–213.
- Lewis, L. K. (2011). *Organizational change: Creating change through strategic communication* (1<sup>st</sup> ed.). Bognor Regis, UK: Wiley.
- Levy, C. (2010). Charismatic leadership in resistance to change. *The Leadership Quarterly*, 21(1), 127–143.
- Levine, L. (2012). *Offshoring (or offshore outsourcing) and job loss among US workers*. Retrieved June 9, 2014, from <http://digitalcommons.ilr.cornell.edu>.
- Lines, R. (2004). Influence of participation in strategic change: Resistance, organizational commitment and change goal achievement. *Journal of Change Management*, 4(3), 193-215.
- Llorens, S., Bakker, A. B., Schaufeli, W., & Salanova, M. (2006). Testing the robustness of the job demands-resources model. *International Journal of Stress Management*, 13(3), 378-391.
- Lombard, C. N., & Zaiman, J. J. (2004). An empirical evaluation of competency requirements for first line managers to deal with resistance to change. *South African Journal of Human Resource Management*, 2(3), 7-15.
- Luecke, R. (2003). *Managing change and transition* (1<sup>st</sup> ed.). Boston, MA: Harvard Business School Press.
- Lumley, E. J. (2009). *Exploring the relationship between career anchors, job satisfaction and organisational commitment*. Unpublished master's dissertation. Pretoria: University of South Africa.

- Lumley, E. J., Coetzee, M., Tladinyane, R., & Ferreira, N. (2011). Exploring the job satisfaction and organisational commitment of employees in the information technology environment. *Southern African Business Review*, 15(1), 100-118.
- Lunenburg, F. C. (2010). Forces for and resistance to organisational change. *National Forum of Educational Administration and Supervision Journal*, 27(4), 1-10.
- MacKinnon, D. P., Coxe, S., & Baraldi, A. N. (2012). Guidelines for the investigation of mediating variables in business research. *Journal of Business and Psychology*, 27(1), 1-14.
- Maddi, S. R. (2002). The story of hardiness: Twenty years of theorizing, research, and practice. *Consulting Psychology Journal*, 54(3), 173-185.
- Mahoney, J., & Thelen, K. (2010). *Explaining institutional change: Ambiguity, agency, and power* (1<sup>st</sup> ed.). London, UK: Cambridge University Press.
- Malik, M. E., Nawab, S., Naeem, B., & Danish, R. Q. (2010). Job satisfaction and organizational commitment of university teachers in public sector of Pakistan. *International Journal of Business and Management*, 5(6), 17-26.
- March, R., & Mannari, H. (1977). Organisational commitment and turnover: A predictive study. *Administrative Science Quarterly*, 22(1), 57-75.
- Marshall, V., & Bonner, D. (2003). Career anchors and the effects of downsizing: Implications for generations and cultures at work: A preliminary investigation. *Journal of European Industrial Training*, 27(6), 281–291.
- Martha, H. (2010). *An investigation of the middle managers' attitude towards organizational change: A case of the automotive industry*. Unpublished master's dissertation. Umtata: University of Fort Hare.
- Martin, J. (2005). *Organisational behaviour and management* (1<sup>st</sup> ed.). London, UK: Thomson.

- Martins, N., & Coetzee, M. (2007). Organisational culture, employee satisfaction, perceived leader emotional competency and personality type: An exploratory study in a South African engineering company. *South African Journal of Human Resource Management*, 5(2), 20-32.
- Martin, A., & Roodt, G. (2008). Perceptions of organisational commitment, job satisfaction and turnover intentions in a post-merger South African tertiary institution. *SA Journal of Industrial Psychology*, 34(1), 23-31.
- Mason, R. B. (2008). Management actions, attitudes to change and perceptions of the external environment: A complexity theory approach. *Journal of General Management*, 34(1), 37-53.
- Mathieu, J., & Zajac, D. (1990). A review and meta-analysis of the antecedents, correlates and consequences of organisational commitment. *Psychological Bulletin*, 108(2), 171-194.
- Maymand, M. M., Shakhshian, F., & Hosseiny, F. S. (2012). The effect of stress on flight performance. *World Applied Sciences Journal*, 19(10), 1381-1387.
- McDonald, D., & Makin, P. (2000). The psychological contract, organizational commitment and job satisfaction of temporary staff. *Leadership and Organizational Development Journal*, 21(2), 84-91.
- McHugh, M. (1997). The stress factor: Another item for the change management agenda. *Journal of Organizational Change Management*, 10(4), 345–362.
- McKnight, D. H., Phillips, B., & Hardgrave, B. C. (2009). Which reduces IT turnover intention the most: Workplace characteristics or job characteristics? *Information and Management*, 46(3), 167–174.
- Mellor, N., Mackay, C., Packham, C., Jones, R., Palferman, D., Webster, S., & Kelly, P. (2011). Management standards and work-related stress in Great Britain: Progress on their implementation. *Safety Science*, 49(7), 1040-1046.
- Meyer, P. J., & Allen, J. N. (1997). *Commitment in the workplace: Theory, research and application* (1<sup>st</sup> ed.). Thousand Oaks, CA: Sage.

- Meyer, J. P., Allen, N. J., & Gellatly, I. R. (1990). Affective and continuance commitment to the organization: Evaluation of measures and analysis of concurrent and time-lagged relations. *Journal of Applied Psychology, 75*(6), 710-720.
- Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review, 11*(3), 299-326.
- Meyer, W., Moore, C., & Viljoen, H. (1997). *Personology* (1<sup>st</sup> ed.). Johannesburg: Heinemann.
- Meyer, K. E., Mudambi, R., & Narula, R. (2011). Multinational enterprises and local contexts: The opportunities and challenges of multiple embeddedness. *Journal of Management Studies, 48*(2), 235-252.
- Meyer, J. P., & Parfyonova, N. M. (2010). Normative commitment in the workplace: A theoretical analysis and re-conceptualization. *Human Resource Management Review, 20*(4), 283-294.
- Meyer, J. P., Stanley, L. J., & Parfyonova, N. M. (2012). Employee commitment in context: The nature and implication of commitment profiles. *Journal of Vocational Behavior, 80*(1), 1-16.
- Miao, Q., Newman, A., Sun, Y., & Xu, L. (2013). What factors influence the organizational commitment of public sector employees in China? The role of extrinsic, intrinsic and social rewards. *The International Journal of Human Resource Management, 24*(17), 3262-3280.
- Michel, A., Todnem, R., & Burnes, B. (2013). The limitations of dispositional resistance in relation to organizational change. *Management Decision, 51*(4), 761–780.
- Miodonski, B. (2004). When employees are present and unproductive. *Contractor Magazine, 51*(11), 54-60.
- Mitchell, T. R., Holtom, B. C., & Lee, T. W. (2001a). How to keep your best employees: Developing an effective retention policy. *The Academy of Management Executive, 15*(4), 96-108.

- Mitchell, T. R., Holtom, B. C., Lee, T. W., Sablinski, C. J., & Erez, M. (2001b). Why people stay: Using job embeddedness to predict voluntary turnover. *Academy of Management Journal*, 44(6), 1102-1121.
- Mitchell, T. R., & Lee, T. W. (2001). The unfolding model of voluntary turnover and job embeddedness: Foundations for a comprehensive theory of attachment. *Research in Organisational Behaviour*, 23(1), 189-246.
- Modrek, S., & Cullen, M. R. (2013). Job insecurity during recessions: Effects on survivors' work stress. *BMC Public Health*, 13(1), 929-1002.
- Moran, J. W., & Brightman, B. K. (2001). Leading organizational change. *Career Development International*, 6(2), 111-119.
- Morrow, P. C. (1983). Concept redundancy in organizational research: The case of work commitment. *Academy of Management Review*, 8(3), 486-500.
- Morrow, P. (1993). *The theory and measurement of work commitment* (1<sup>st</sup> ed.). Greenwich, CT: Jai Press.
- Mostert, F. F., Rothmann, S., Mostert, K., & Nell, K. (2008). Outcomes of occupational stress in a higher education institution. *Southern African Business Review*, 12(3), 102-127.
- Mowdays, R., Porter, L., & Steers, R. (1982). *Employee-organizational linkages: The psychology of commitment, absenteeism and turnover* (1<sup>st</sup> ed.). New York: Academic Press.
- Mouton, J., & Marais, H. (1996). *Basic concepts: In the methodology of the social sciences*. (4th ed.). Pretoria: HSRC Publishers.
- Murphy, K. R., & Davidshofer, C. O. (2005). *Psychological testing: Principles and applications* (6<sup>th</sup> ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Murphy, W. M., Burton, J. P., Henagan, S. C., & Briscoe, J. P. (2013). Employee reactions to job insecurity in a declining economy: A longitudinal study of the mediating role of job embeddedness. *Group and Organization Management*, 38(4), 512-537.

- Muthén, L.K. & Muthén, B.O. (2007). *Mplus user's guide* (5<sup>th</sup> ed.). Los Angeles, CA: Muthén & Muthén.
- Muthén, L.K. & Muthén, B.O. (2014). *Mplus user's guide* (8<sup>th</sup> ed.). Los Angeles, CA: Muthén & Muthén.
- Nafei, W. A. (2014). Do job rotation and role stress affect job attitudes? A study from Egyptian context. *American International Journal of Social Science*, 3(1), 94-108.
- Nelissen, P., & Selm, M. (2008). Surviving organizational change: How management communication helps balance mixed feelings. *Corporate Communications: An International Journal*, 13(3), 306-318.
- Neuman, W. (2000). *Social research methods: Quantitative and qualitative approach* (1<sup>st</sup> ed.). Boston: Allyn & Bacon.
- Newstrom, J. W., & Davis, K. (1997). *Organisational behaviour: Human behaviour at work* (10<sup>th</sup> ed.). New York, NY: Irwin McGraw Hill.
- Neves, P. (2011). Building commitment to change: The role of perceived supervisor support and competence. *European Journal of Work and Organizational Psychology*, 20(4), 437-450.
- Ng, T. W., & Feldman, D. C. (2010). Idiosyncratic deals and organizational commitment. *Journal of Vocational behaviour*, 76(3), 419-427.
- Ng, T. W., & Feldman, D. C. (2011). Locus of control and organizational embeddedness. *Journal of Occupational and Organizational Psychology*, 84(1), 173-190.
- Ng, T. W., & Feldman, D. C. (2013). Changes in Perceived Supervisor Embeddedness: Effects on Employees' Embeddedness, Organizational Trust, and Voice Behavior. *Personnel Psychology*, 66(3), 645-685.
- Ng, T. W., Feldman, D. C., & Lam, S. S. (2010). Psychological contract breaches, organizational commitment, and innovation-related behaviours: A latent growth modelling approach. *Journal of Applied Psychology*, 95(4), 744-751.

- Niehoff, B. P., Moorman, R. H., Blakely, G., & Fuller, J. (2001). The influence of empowerment and job enrichment on employee loyalty in a downsizing environment. *Group and Organization Management, 26*(1), 93-113.
- Nielsen, K., Taris, T. W., & Cox, T. (2010). The future of organizational interventions: Addressing the challenges of today's organizations. *Work and Stress, 24*(3), 219-233.
- Niessen, C., Swarowsky, C., & Leiz, M. (2010). Age and adaptation to changes in the workplace. *Journal of Managerial Psychology, 25*(4), 356-383.
- Nikolaou, I., Gouras, A., Vakola, M., & Bourantas, D. (2007). Selecting change agents: Exploring traits and skills in a simulated environment. *Journal of Change Management, 7*(3), 291-313.
- Norback, P. J., & Persson, L. (2008). Globalisation and profitability of cross-border mergers and acquisitions. *Economic Theory, 35*(2), 241-266.
- Nunnally, J. C. (1978). *Psychometric theory* (2<sup>nd</sup> ed.). New York, NY: McGraw-Hill.
- O'Brien, G. (2002). Participation as the key to successful change: A public sector case study. *Leadership and Organisation Development Journal, 23*(8), 442-455.
- Ogiwara, C., Tsuda, H., Akiyama, T., & Sakai, Y. (2008). Gender-related stress among Japanese working women. *Transcultural Psychiatry, 45*(3), 470-488.
- Ogg, S. (2011). *HR for impact: The chief HR officer: Defining the new role of human resource leaders* (1<sup>st</sup> ed.). San Francisco, CA: Jossey-Bass.
- Ohlott, P. J., Ruderman, M. N., & McCauley, C. D. (1994). Gender differences in managers' developmental job experiences. *Academy of Management Journal, 37*(1), 46-67.
- Okumus, F., & Hemmington, N. (1998). Barriers and resistance to change in hotel firms: An investigation at unit level. *International Journal of Contemporary Hospitality Management, 10*(7), 283-288.

- O'Neill, J. W., & Davis, K. (2011). Work stress and well-being in the hotel industry. *International Journal of Hospitality Management*, 30(2), 385-390.
- Oreg, S. (2006). Personality, context and resistance to organizational change. *European Journal of Work and Organizational Psychology*, 15(1), 73-101.
- Oreg, S., & Sverdlik, N. (2011). Ambivalence toward imposed change: The conflict between dispositional resistance to change and the orientation toward the change agent. *Journal of Applied Psychology*, 96(2), 337-349.
- O'Reilly, C., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification and internalization on pro-social behaviour. *Journal of Applied Psychology*, 71(3), 492-499.
- Pallant, J. (2010). *SPSS survival manual: A step by step guide to data analysis using SPSS* (3<sup>rd</sup> ed.). Sydney, Australia: McGraw-Hill International.
- Parish, J. T., Cadwallader, S., & Busch, P. (2008). Want to, need to, ought to: Employee commitment to organizational change. *Journal of Organizational Change Management*, 21(1), 32–52.
- Parkes, K. R. (1994). Personality and coping as moderators of work stress processes: Models, methods and measures. *Work & Stress*, 8(2), 110-129.
- Paton, R. A., & McCalman, J. (2008). *Change management: A guide to effective implementation* (2<sup>nd</sup> ed.). London, UK: Sage.
- Peacock, E. J., Wong, P. T., & Reker, G. T. (1993). Relations between appraisals and coping schemas: Support for the congruence model. *Canadian Journal of Behavioural Science*, 25(1), 64-80.
- Peccei, R., Giangreco, A., & Sebastiano, A. (2011). The role of organisational commitment in the analysis of resistance to change: Co-predictor and moderator effects. *Personnel Review*, 40(2), 185-204.
- Perlman, D., & Takacs, G. J. (1990). The ten stages of change. *Nursing Management*, 21(1), 33-34.

- Piccolo, R. F., Greenbaum, R., Hartog, D. N. D., & Folger, R. (2010). The relationship between ethical leadership and core job characteristics. *Journal of Organizational Behaviour, 31*(23), 259-278.
- Piderit, S. C. (2000). Rethinking resistance and recognizing ambivalence: A multidimensional view of attitudes toward and organizational change. *Academy of Management Review, 25*(4), 783-794.
- Pienaar, C., & Van Zyl, E. S. (2008). Werkstresverskille tussen wit en swart middelvlakbestuurspersoneel. *Suid-Afrikaanse Tydskrif vir Bedryfsielkunde, 34*(3), 60-67.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., & Podsakoff, N.P. (2003). Common method biases in behavior research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(1), 879-903.
- Polgar, S., & Thomas, S. A. (2013). *Introduction to research in the health sciences* (6<sup>th</sup> ed). Cambridge, UK: Elsevier.
- Popper, M., & Amit, K. (2009). Influence of attachment style on major psychological capacities to lead. *The Journal of Genetic Psychology, 170*(3), 244-267.
- Porter, L. W., Crampon, W. J., & Smith, F. J. (1976). Organizational commitment and managerial turnover: A longitudinal study. *Organizational Behaviour and Human Performance, 15*(1), 87-98.
- Porter, L. W., Steers, R. M., Mowday, R. T., & Boulian, P. V. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology, 59*(5), 603-609.
- Preacher, K. & Hayes, A. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behaviour Research Methods, 40*(3), 879–891.
- Preacher, K.J., & Kelly, K. (2011). Effect size measures for mediating models: Qualitative strategies for communicating indirect effects. *Psychological Methods, 16*(2), 93-115.

- ProSci (1998). *Best practices in managing change*. Retrieved March 10, 2013, from <http://www.prosci.com>.
- Qian, Y., & Daniels, T. (2008). A communication model of employee cynicism toward organisational change: Corporate communications. *An International Journal*, 13(3), 319-332.
- Raes, A. M., Bruch, H., & De Jong, S. B. (2013). How top management team behavioural integration can impact employee work outcomes: Theory development and first empirical tests. *Human Relations*, 66(2), 167-192.
- Rafferty, A. E., & Restubog, S. L. D. (2010). The impact of change process and context on change reactions and turnover during a merger. *Journal of Management*, 36(5), 1309-1338.
- Raineri, A. B. (2011). Change management practices: Impact on perceived change results. *Journal of Business Research*, 64(3), 266-272.
- Ramesh, A., & Gelfand, M. J. (2010). Will they stay or will they go: The role of job embeddedness in predicting turnover in individualistic and collectivistic cultures. *Journal of Applied Psychology*, 95(5), 807-823.
- Randall, D. M., & Cote, J. A. (1991). Interrelationships of work commitment constructs. *Work and Occupations*, 18(2), 194-211.
- Rani, D. L., & Mishra, P. K. (2001). Occupational stress among working women in emergency services. *Management and Labour Studies*, 26(1), 25-36.
- Rashid, M. Z. A., Sambasivan, M., & Rahman, A. A. (2004). The influence of organizational culture on attitudes toward organizational change. *Leadership and Organization Development Journal*, 25(2), 161-179.
- Raukko, M. (2009). Organizational commitment during organizational change: A longitudinal case study on acquired key employees. *Baltic Journal of Management*, 4(3), 331-352.

- Raykov, T., & Marcoulides, G. (2000). *A first course in structural equation modelling* (1<sup>st</sup> ed.). Mahwah, NJ: Lawrence Erlbaum.
- Reichers, A. (1985). A review and reconceptualization of organizational commitment. *Academy of Management Review*, 10(3), 465-476.
- Reichers, A. (1986). Conflict and organisational commitments. *Journal of Applied Psychology*, 71(3), 508-514.
- Reitz, O. E., Anderson, M. A., & Hill, P. D. (2010). Job embeddedness and nurse retention. *Nursing Administration Quarterly*, 34(3), 190-200.
- Richardson, P. (2000). Employability in a globalising economy: Implications for engineering training. *Engineering Science and Education Journal*, 9(4), 179-184.
- Robbins, S. P. (1993). *Organizational behaviour: Concepts, controversies and applications*. (6<sup>th</sup> ed.). Upper Saddle River, NJ: Prentice Hall.
- Rollinson, D. (2005). *Organizational behaviour and analysis: An integrated approach*. (1<sup>st</sup> ed.) London, UK: Prentice Hall.
- Rooney, D., Paulsen, N., Callan, V. J., Brabant, M., Gallois, C., & Jones, E. (2010). A new role for place identity in managing organizational change. *Management Communication Quarterly*, 24(1), 44-73.
- Rose, R. C., Kumar, N., & Pak, O. G. (2011). The effect of organizational learning on organizational commitment, job satisfaction and work performance. *Journal of Applied Business Research*, 25(6), 55-66.
- Rothmann, S. (2014). Flourishing in work and careers. In M. Coetzee (ed.), *Psycho-social career meta-capacities: dynamics of contemporary career development* (pp. 203–220). Dordrecht, the Netherlands: Springer International.
- Rothmann, S., Diedericks, E., & Swart, J. P. (2013). Manager relations, psychological need satisfaction and intention to leave in the agricultural sector. *South African Journal of Industrial Psychology*, 39(2), 1-11.

- Rousseau, D. M., & Tijoriwala, S. A. (1999). What's a good reason to change: Motivated reasoning and social accounts in promoting organizational change. *Journal of Applied Psychology, 84*(4), 514-528.
- Ruez, P. (2004). Quality and bottom-line can suffer at the hands of the working sick. *Managed Healthcare Executive, 14*(11), 46-48.
- Sagie, A. (1998). Employee absenteeism, organizational commitment, and job satisfaction: Another look. *Journal of Vocational Behaviour, 52*(2), 156-171.
- Schabracq, M. J., & Cooper, C. L. (2000). The changing nature of work and stress. *Journal of Managerial Psychology, 15*(3), 227-241.
- Schaufeli, W. B., & Taris, T. W. (2014). A critical review of the job demands-resources model: Implications for improving work and health. In *Bridging occupational, organizational and public health*. Dordrecht, the Netherlands: Springer.
- Schein, E. H. (1996). Kurt Lewin's change theory in the field and in the classroom: notes towards a model of management learning. *Systems Practice, 9* (1), 27-47.
- Schwarzer, R., & Hallum, S. (2008). Perceived teacher self-efficacy as a predictor of job stress and burnout: Mediation analyses. *Applied Psychology, 57*(1), 152-171.
- Schweiger, D. M., & Denisi, A. S. (1991). Communication with employees following a merger: A longitudinal field experiment. *Academy of Management Journal, 34*(1), 110-135.
- Sekiguchi, T., Burton, J.P., & Sablynski, C.J. (2008). The role of job embeddedness on employee performance: The interactive effects with leader-member exchange and organization-based self-esteem. *Personnel Psychology, 61*(4), 761-792.
- Selye, H. (1956). *The stress of life* (1<sup>st</sup> ed). New York, NY: McGraw-Hill.
- Selye, H. (1976). *Stress in health and disease* (1<sup>st</sup> ed.). Boston, MA: Butterworths.

- Shah, N., & Irani, Z. (2010). *Examining employee attitudes and behaviours towards organisational change using supervisor and peer relations*. Retrieved January 17, 2014, from <http://www.iseing.org>
- Shaw, J. D., Delery, J. E., Jenkins, G. D., & Gupta, N. (1998). An organization-level analysis of voluntary and involuntary turnover. *Academy of Management Journal*, 41(5), 511-525.
- Sheldon, M. (1971). Investments and involvements as mechanisms producing commitment to the organisation. *Administrative Science Quarterly*, 16(2), 143-150.
- Shin, J., Taylor, M. S., & Seo, M. G. (2012). Resources for change: The relationships of organizational inducements and psychological resilience to employees' attitudes and behaviors toward organizational change. *Academy of Management Journal*, 55(3), 727-748.
- Shuck, B., Reio Jr, T. G., & Rocco, T. S. (2011). Employee engagement: An examination of antecedent and outcome variables. *Human Resource Development International*, 14(4), 427-445.
- Shultz, K. S., Wang, M., Crimmins, E. M., & Fisher, G. G. (2010). Age differences in the demand-control model of work stress: An examination of data from 15 European countries. *Journal of Applied Gerontology*, 29(1), 21-47.
- Siegrist, J., Shackelton, R., Link, C., Marceau, L., Von dem Knesebeck, O., & McKinlay, J. (2010). Work stress of primary care physicians in the US, UK and German health care systems. *Social Science and Medicine*, 71(2), 298-304.
- Sirkin, H. L., Keenan, P., & Jackson, A. (2005). The hard side of change management. *Harvard Business Review*, 83(10), 108-115.
- Siriram, R. (2011). Convergence of technologies. *South African Journal of Industrial Engineering*, 22(1), 13-27.
- Sitlington, H., & Marshall, V. (2011). Do downsizing decisions affect organisational knowledge and performance? *Management Decision*, 49(1), 116–129.

- Siu, O. L. (2002). Occupational stressors and well-being among Chinese employees: The role of organisational commitment. *Applied Psychology, 51*(4), 527–544.
- Slabbert, J. A., & De Villiers, A. S. (1998). *The South African organizational environment*. Retrieved April 17, 2014, from [www.unisa.ac.za](http://www.unisa.ac.za).
- Smither, R. D. (1994). *The psychology of work and human performance* (1<sup>st</sup> ed.). New York, NY: HarperCollins.
- Smollan, R. K. (2013). Trust in change managers: The role of affect. *Journal of Organizational Change Management, 26*(4), 725–747.
- Smollan, R. K., Sayers, J. G., & Matheny, J. A. (2010). Emotional responses to the speed frequency and timing of organizational change. *Time and Society, 19*(1), 28-53.
- Soltani, E., Lai, P. C., & Mahmoudi, V. (2007). Managing change initiatives: Fantasy or reality: The case of public sector organisations. *Total Quality Management and Business Excellence, 18*(1), 153-179.
- Sonenshein, S. (2010). We are changing or are we: Untangling the role of progressive, regressive and stability narratives during strategic change implementation. *Academy of Management Journal, 53*(3), 477-512.
- SPSS (2003). *SPSS professional statistics 11.0.1*. Chicago, IL: SPSS International.
- Smylie, M. A. (2010). *Continuous school improvement* (1<sup>st</sup> ed). Thousand Oaks, CA: Corwin Press.
- Steers, R., & Mowday, R. (1981). Employee turnover and post-decision accommodation processes. In L. L. Cummings, & B. M. Staw (Eds), *Research in organisational behaviour* (vol. 3). Greenwich, CT: JAI Press.
- Steiner, G. A. (2010). *Strategic planning* (1<sup>st</sup> ed). New York, NY: The Free Press.
- Stensaker, I. G., & Meyer, C. B. (2011). Change experience and employee reactions: Developing capabilities for change. *Personnel Review, 41*(1), 106-124.

- Stewart, J. & Kringas, P. (2005). *Change management: Strategy and values: Six case studies from the Australian public sector*. Retrieved September 18, 2014, from [www.blis.canberra.edu.au/crpsm/research/pdf/stewartkringas](http://www.blis.canberra.edu.au/crpsm/research/pdf/stewartkringas).
- Steyn, H. (1999). Praktiese betekenisvolheid: Die gebruik van effekgroottes. Wetenskaplike bydraes – Reeks B. *Natuurwetenskappe*, 117.
- Storey, J. (1995). *Human resource management: Still marching on or marching out?* (1<sup>st</sup> ed.). London, UK: Routledge.
- Stroth, C. (2010). Job embeddedness as a nurse retention strategy for rural hospitals. *Journal of Nursing Administration*, 40(1), 32-35.
- Stuart, R. (1996). The trauma of organizational change. *Journal of European Industrial Training*, 20(2), 11-16.
- Suhr, D. (2006). *The basics of structural equation modelling*. Retrieved November 18, 2014, from <http://jansenlex.readyhosting.com/wuss/2006/tutorials/TUT-Suhr.pdf>
- Suliman, A., & Iles, P. (2000). Is commitment beneficial to organizations? Commitment performance relationships: A new look. *Journal of Managerial Psychology*, 15(5), 407-426.
- Sullivan, S. (1999). The changing nature of careers: A review and research agenda. *Journal of Management*, 25(3), 457-484.
- Sullivan, S. E., & Bhagat, R. S. (1992). Organizational stress, job satisfaction and job performance: Where do we go from here? *Journal of Management*, 18(2), 353-374.
- Supply chain foresight. (2008). *FMCG and retail report*. Retrieved December 15, 2013, from <http://www.supplychainforesight.co.za>.
- Suresh, R. S., Anantharaman, R. N., Angusamy, A., & Ganesan, J. (2013). Sources of job stress in police work in a developing country. *International Journal of Business and Management*, 8(13), 102-110.

- Susanto, A. B. (2008). Organizational readiness for change: A case study on change readiness in a manufacturing company in Indonesia. *International Journal of Management Perspectives*, 2(1), 50-61.
- Swart, B. (2009). *Best company practices and organisational commitment: An exploratory study of an engineering company*. Unpublished master's dissertation. Pretoria: University of South Africa.
- Syverson, C. (2010). What determines productivity? *Journal of Economic Literature*, 49(2), 326-365.
- Szamosi, L. T., & Duxbury, L. (2002). Development of a measure to assess organizational change. *Journal of Organizational Change Management*, 15(2) 184-201.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Multivariate statistics* (1<sup>st</sup> ed.). Needham Heights, MA: Allyn & Bacon.
- Tanova, C., & Holtom, B. C. (2008). Using job embeddedness factors to explain voluntary turnover in four European countries. *The International Journal of Human Resource Management*, 19(9), 1553-1568.
- Terre Blanche, M., & Durrheim, K. (2002). *Research in practice: Applied methods for the social sciences* (1<sup>st</sup> ed.). Cape Town: UCT Press.
- Terre Blanche, M., Durrheim, K., & Painter, D. (2006). *Research in practice: Applied methods for the social sciences* (2<sup>nd</sup> ed). Cape Town: UCT Press.
- Tetrick, L. E. (1995). Developing and maintaining union commitment: A theoretical framework. *Journal of Organizational Behaviour*, 16(6), 583–595.
- Tierney, P., & Farmer, S. M. (2011). Creative self-efficacy development and creative performance over time. *Journal of Applied Psychology*, 96(2), 277-293.
- Thomas, R., & Hardy, C. (2011). Reframing resistance to organisational change. *Scandinavian Journal of Management*, 27(3), 322-331.

- Thomas, R., & Linstead, A. (2002). Losing the plot: Middle managers and identity. *Organization*, 9(1), 71–93.
- Thomas, R., Sargent, L. D., & Hardy, C. (2011). Managing organisational change: Negotiating meaning and power-resistance relations. *Organisation Science*, 22(1), 22-41.
- Todnem, R. (2005). Organisational change management: A critical review. *Journal of Change Management*, 5(4), 369-380.
- Tredoux, C., & Durrheim, K. (2002). *Numbers, hypotheses and conclusions: A course in statistics for the social sciences* (1<sup>st</sup> ed.). Lansdowne, Cape Town: UCT Press.
- Vacharkulksemsuk, T., Sekerka, L. E., & Fredrickson, B. L. (2010). Establishing a positive emotional climate to create 21st-century organisational change. *The Handbook of Organisational Culture and Climate*, 2(1), 101-118.
- Vakola, M., & Nikolaou, I. (2005). Attitudes towards organizational change: What is the role of employees' stress and commitment. *Employee Relations*, 27(2), 160-174.
- Vakola, M., Tsaousis, I., & Nikolaou, I. (2004). The role of emotional intelligence and personality variables on attitudes toward organisational change. *Journal of Managerial Psychology*, 19(2), 88-110.
- Vandenberghe, C., Panaccio, A., Bentein, K., Mignonac, K., & Roussel, P. (2011). Assessing longitudinal change of and dynamic relationships among role stressors, job attitudes, turnover intention, and well-being in neophyte newcomers. *Journal of Organizational Behavior*, 32(4), 652-671.
- Vandenberg, R. J., & Self, R. M. (1993). Assessing newcomers' changing commitments to the organisation during the first 6 months of work. *Journal of Applied Psychology*, 78(4), 557-568.
- Van Dyk, J. (2011). *The relationship between organisational commitment, retention factors and perceived job embeddedness*. Unpublished master's dissertation. Pretoria: University of South Africa.

- Van Dyk, J., Coetzee, M., & Takawira, N. (2013). Satisfaction with retention factors as predictors of the job embeddedness of medical and information technology services staff. *Southern African Business Review*, 17(1), 57-75.
- Van Dyk, J., Coetzee, M., & Tebele, C. (2013). *Organisational commitment and job embeddedness of critical and scarce services staff*. University of South Africa, Pretoria.
- Van Tonder, C. L. (2004). *Organisational change: Theory and practice* (1<sup>st</sup> ed.). Pretoria: Van Schaik.
- Van den Heuvel, M., Demerouti, E., Bakker, A. B., & Schaufeli, W. B. (2010). Personal resources and work engagement in the face of change. *Contemporary Occupational Health Psychology*, 1, 124-150.
- Van Veldhoven, M., Taris, T. W., De Jonge, J., & Broersen, S. (2005). The relationship between work characteristics and employee health and well-being: How much complexity do we really need? *International Journal of Stress Management*, 12(1), 3-28.
- Van Vuuren, L. J. (2010). Industrial psychology goodness of fit: Fit for goodness. *South African Journal of Industrial Psychology*, 36(2), 1-16.
- Van Zyl, E. (1993). The measurement of work stress within South African companies: A luxury or necessity. *South African Journal of Industrial Psychology*, 28(3), 26-31.
- Vigoda-Gadot, E., & Beerli, I. (2012). Change-oriented organizational citizenship behaviour in public administration: The power of leadership and the cost of organizational politics. *Journal of Public Administration Research and Theory*, 22(3), 573–596.
- Viljoen, J. P., & Rothmann, S. (2009). Occupational stress, ill health and organisational commitment of employees at a university of technology. *South African Journal of Industrial Psychology*, 35(1), 1-11.

- Visagie, C. M. (2010). *The relationship between employee attitudes towards planned organisational change and organisational commitment: An investigation of a selected case within the South African telecommunications industry*. Retrieved January 12, 2014, from <http://dk.cput.ac.za>
- Visagie, C. M., & Steyn, C. (2011). Organisational commitment and responses to planned organisational change: An exploratory study. *Southern African Business Review*, 15(3), 98-121.
- Vogelgesang, G. R., Leroy, H., & Avolio, B. J. (2013). The mediating effects of leader integrity with transparency in communication and work engagement or performance. *The Leadership Quarterly*, 24(3), 405-413.
- Waddell, D. & Sohal, A. S. (1998). Resistance: A constructive tool for change management. *Management Decision*, 36(8), 543-548.
- Walker, E. (2010). *Strategic leadership, entrepreneurship and organisational change: A case study of Imperial Holdings Ltd*. Unpublished doctoral thesis. Stellenbosch: University of Stellenbosch.
- Wanberg, C. R., & Banas, J. T. (2000). Predictors and outcomes of openness to changes in a reorganizing workplace. *Journal of Applied Psychology*, 89(1), 132-42.
- Wang, M., & Shultz, K. S. (2010). Employee retirement: A review and recommendations for future investigation. *Journal of Management*, 36(1), 172-206.
- Wang, J. & Wang, X. (2012). *Structural equation modelling: Applications using Mplus* (1<sup>st</sup> ed.). Chichester, UK: Wiley.
- Waters, L. (2007). Experiential differences between voluntary and involuntary job redundancy on depression, job-search activity, affective employee outcomes and re-employment quality. *Journal of Occupational and Organizational Psychology*, 80(2), 279–299.
- Webster, E., Lambert, R., & Beziudenhout, A.(2011). *Grounding globalisation: Labour in the age of insecurity* (1<sup>st</sup> ed).Bognor Regis, UK: Wiley.

- Weick, K. E. (2007). Small wins: Redefining the scale of social problems. *American Psychologist*, 39(1), 40-49.
- Weiner, B. J. (2009). A theory of organisational readiness for change. *Implement Sci*, 4(1), 1-9.
- Weinstein, N., & Ryan, R. M. (2011). A self-determination theory approach to understanding stress incursion and responses. *Stress and Health*, 27(1), 4-17.
- Wiener, Y. (1982). Commitment in organizations: A normative view. *Academy of Management Review*, 7(3), 418-428.
- Wilkinson, A. (2005). Downsizing, rightsizing or dumbsizing: Quality, human resources and the management of sustainability. *Total Quality Management and Business Excellence*, 16(8), 1079-1088.
- Winter, R., Taylor, T., & Sarros, J. (2000). Trouble at mill: Quality of academic work life issues within a comprehensive Australian university. *Studies in Higher Education*, 25(3), 279-294.
- Xaba, J. N. (2012). Employee assistance programmes and retrenchment: A South African case study. *South African Journal of Education*, 32(2), 215-226.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14(2), 121-141.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Reciprocal relationships between job resources, personal resources and work engagement. *Journal of Vocational Behaviour*, 74(3), 235-244.
- Yao, X., Lee, T. W., Mitchell, T. R., Burton, J. P., & Sablinski, C. S. (2004). Job embeddedness: Current research and future directions. In R. Griffeth, & P. Hom (Eds). *Understanding employee retention and turnover*. Greenwich, CT: Information Age.

- Yilmaz, S., Ozgen, H., & Akyel, R. (2013). The impact of change management on the attitudes of Turkish security managers towards change: A case study. *Journal of Organizational Change Management*, 26(1), 117–138.
- Yoon, G. S., & Kim, S. Y. (2010). Influences of job stress and burnout on turnover intention of nurses. *Journal of Korean Academy of Nursing Administration*, 16(4), 507-516.
- Young, A. P. (2000). I'm just me: A study of managerial resistance. *Journal of Organisational Change Management*, 13(4), 375-388.
- Yousef, D. A. (2000). Organisational commitment as a mediator of the relationship between Islamic work ethic and attitudes toward organisational change. *Human Relations*, 53(4), 513-537.
- Zeinabadi, H. (2010). Job satisfaction and organisational commitment as antecedents of organizational citizenship behaviour (OCB) of teachers. *Procedia-Social and Behavioural Sciences*, 5(1), 998-1003.
- Zhang, M., & Griffeth, R. (2013). Effects of shock and job embeddedness on voluntary turnover: Testing a predictive model. *Academy of Management Proceedings*, 13(1), 157-162.
- Zhang, M., Fried, D. D., & Griffeth, R. W. (2012). A review of job embeddedness: Conceptual, measurement issues and directions for future research. *Human Resource Management Review*, 22(3), 220-231.