

**FACTORIAL INVARIANCE OF AN EMPLOYEE ENGAGEMENT INSTRUMENT  
ACROSS DIFFERENT RACE GROUPS**

**WESLEY HERSCHELLE GALLANT**

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Supervisor: Professor Nico Martins

56901275

## **DECLARATION**

### **FOR THE ATTENTION OF THE READER**

#### **SCOPE OF THE DISSERTATION**

For this master's dissertation of limited scope (50% of the total master's degree) the Department of Industrial and Organisational Psychology prescribes an article format. This format involves four chapters – an introductory and literature chapter; followed by a research article (presented as chapter 3); and ending with a conclusion, limitations, or recommendations chapter.

#### **TECHNICAL AND REFERENCE STYLE**

In this dissertation I have chosen the publication guidelines of the American Psychology Association to structure my dissertation and article. Therefore, the APA style was followed in the technical editing and referencing.

#### **DECLARATION**

I, Wesley Herschelle Gallant, 56901275, declare that this dissertation, titled “FACTORIAL INVARIANCE OF AN EMPLOYEE ENGAGEMENT INSTRUMENT ACROSS DIFFERENT RACE GROUPS”, is my own work, and that all the sources that I have used or from which I have quoted have been indicated and acknowledged by means of complete references.

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**SUMMARY**  
**FACTORIAL INVARIANCE OF AN EMPLOYEE ENGAGEMENT INSTRUMENT**  
**ACROSS DIFFERENT RACE GROUPS**

by  
**WESLEY GALLANT**

SUPERVISOR: Professor Nico Martins

DEPARTMENT: Industrial and Organisational Psychology

DEGREE: MCom (Industrial and Organisational Psychology)

The overall objective of this study was to determine the factorial invariance of a South African-developed Employee Engagement Instrument (EEI) across different race groups in financial institutions. A secondary objective of this study was to determine whether race groups differ significantly with regard to the six dimensions of the employee engagement instrument.

A quantitative, cross-sectional and descriptive research design was followed in this study, using a non-probability, convenience sampling (N = 1175). The EEI was electronically administered to 285 000 businesspeople from various demographic backgrounds, which form part of a research database. The focus was respondents from financial institutions.

Descriptive and inferential statistical analysis was employed to achieve the empirical objectives of this study. Findings from the statistical analysis indicated that White and Black employees differed significantly with regards to how they are engaged by their immediate managers; however, the practical significance was small. Furthermore, the employee engagement instrument was found to be reliable and valid and the instrument was invariant across the four different race groups. By understanding how employees from different backgrounds are engaged it enables organisations to customise their engagement programmes to meet the needs of the various types of employees within the organisation, instead of applying a “one size fits all” approach to engagement programmes.

The findings of this study provided valuable insights into the importance of employee engagement in a South African context, especially for financial institutions. Finally, the study adds to the vast body of knowledge that exists with regard to employee engagement and race, both locally and internationally.

**Key Words:** Employee Engagement, Confirmatory Factor Analysis, Exploratory Factor Analysis, Multi-Group Invariance, Personal Engagement, Work Engagement, Financial Institutions

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## **CHAPTER 1: SCIENTIFIC ORIENTATION TO THE RESEARCH**

### **1. SCIENTIFIC ORIENTATION TO THE RESEARCH**

The main focus of the study is to test the factorial invariance of the employee engagement survey developed and adapted by Nienaber and Martins (2014) for different race groups in financial institutions. Furthermore, the study aims to determine whether any statistically significant differences exist with regard to the employee engagement instrument and race.

The purpose of this chapter is to provide the theoretical background to the study and to define the problem and motivation for the research. Furthermore, the research aims and objectives are highlighted, followed by a discussion of the research methodology - a description of the measuring instrument and methods and techniques used to analyse the data. Moreover, this chapter elaborates on the significance and practical implications of the study for financial institutions in South Africa. Finally, the ethical framework, which formed the foundation of this study, is discussed, followed by an outline of the layout of the dissertation.

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

Employee engagement is a major developing trend within the field of occupational health and the school of positive psychology that shifts the focus from weaknesses and malfunctioning to that of focusing on human strengths and optimal human in order to sustain a competitive advantage and contribute to improved employee and organisational performance (Attridge, 2009; Barnes & Collier, 2013; Coetzer & Rothmann, 2007; Fearon, McLaughlin, & Morris, 2013; Gruman & Saks, 2011).

The concept of engagement first emerged in 1990. Kahn (1990, p. 694) formed the foundation of employee engagement and conceptualised it as “the harnessing of organization member’s selves to their work roles in engagement, people employ and express themselves physically, cognitively and mentally while performing their job tasks.” Therefore, employees that are engaged in their work exert more effort in their work as a result of their identifying with their work. According to Kahn, individuals use varying degrees of their selves, physically, cognitively and emotionally, when it comes to the work they perform. It is believed that the more people draw on their own abilities to perform their work roles, the higher their

performance. The physical aspect relates to the extent to which employees exert energy when performing their job, whereas the emotional aspect refers to employees putting their heart and soul into their work and the resultant feeling of satisfaction that arises from it. Lastly, the cognitive aspect relates to an individual's understanding of his or her work roles and how they contribute to the overall objectives of the organisation (Attridge, 2009). Kahn further states that engagement is the expression of oneself in the tasks that one performs and how that relates to the overall job and the work roles of others. By expressing oneself in one's work it produces behaviours that emphasises the relationship between the role and the self. In other words, when individuals become fully engrossed in their work, they become cognitively more aware and more connected to others in the service of the work they are performing (Kahn, 1990).

Nienaber and Martins (2015) highlight that various schools of thought exist with regard to the term *employee engagement* and each of these authors conceptualise employee engagement differently. In order for organisations to develop strategies to enhance employee engagement levels, it is important that organisations recognise and understand the core drivers of employee engagement; however, there is still an ongoing debate as to what the core drivers of engagement are (Lockwood, 2007; Saks, 2006; Simpson, 2009; Towers Perrin, 2008). As a result, Schaufeli and Salanova (2011) describe the concept of employee engagement as "slippery". Many researchers use the term employee engagement and work engagement interchangeably, and although the two are interrelated, they are still two distinct concepts (Kahn, 1990; Saks, 2006). According to Schaufeli and Salanova (2011), employee engagement is a much broader concept than work engagement. Employee engagement focuses on the professional and work-related role of the employee in the organisation, whereas work engagement focuses on how employees become engaged in their work.

According to Coetzer and Rothmann (2007), organisations today use employee engagement as a strategic tool in the workplace. The notion of employee engagement has gained tremendous attention as many organisational drivers that impact on employee performance and well-being have been identified in the workplace. There are various reasons for the above. Firstly, employee engagement results in job satisfaction, organisational commitment and lower intentions to quit. Secondly, employee engagement promotes personal growth and learning. Finally, research with regard to the psychological understanding of employee engagement will allow academics and organisations to cognise and determine why certain employees have a

psychological and emotional relationship with their jobs and organisations (Coetzer & Rothmann, 2007).

Furthermore, Hayday, Perryman and Robinson (2004), state that engaged employees perform at a higher level, making it important to understand the extent to which employees are engaged or disengaged. When employees become full engaged, the following benefits will become evident:

- enhanced levels of employee satisfaction;
- passion and commitment to organisation vision, mission, goals, and objectives;
- enhanced individual performance;
- enhanced organisational effectiveness;
- enhanced organisational commitment;
- an energised working environment;
- a motivated and productive workforce;
- good teamwork among employees and departments;
- high employee morale;
- organisational growth;
- high employee retention as a result of employee loyalty;
- enhanced levels of psychological capital;
- enhanced levels of trust amongst employees and management/organisation; and
- employees who are proud of their organisation and willingly act as brand ambassadors for their organisation. (Bedarkar & Pandita, 2014; Beukes & Botha, 2013; Coetzee, Schreuder & Tladinyane, 2014; Hayday et al., 2004; Macey, Schneider, Barbera, & Young, 2009; Metcalfe & Metcalfe, 2008; Simons & Buitendach, 2013; Takawira, Coetzee, & Schreuder, 2014)

Tomic and Tomic (2010) state that employees who have high levels of employee engagement exert extra effort when performing their work, as a result of them enjoying the work and not as a result of inner motivation alone. Even when engaged employees experience fatigue, engaged individuals describe the feeling as rewarding due to the positive achievement associated with the fatigue. Schaufeli and Salanova (2007) maintain that engaged employees continuously seek new challenges and adventures in their work; they also provide high quality work, which results in job satisfaction, organisational commitment and lower intentions of resigning. Strom, Sears,

and Kelly (2014) state that the most successful companies have a few things in common, one of those things being employees who are entirely – physically, psychologically and emotionally – engaged by their work. To capitalise on the above benefits, Macey et al. (2009) highlight that organisations must develop engagement strategies that “create the capacity to engage”. These conditions are ambiguous and not explicit extrinsic rewards (remuneration and benefits); it is therefore important that organisations find ways of engaging their employees. This can be done by creating and promoting a work environment that is supportive, positive, motivating, encourages strategic vision, job enrichment, high quality leadership, effective two-way communication, growth opportunities and recognition, amongst other things (Dibley, Viviers & van Zyl, 2014; Tomic & Tomic 2010).

## **1.2 PROBLEM STATEMENT**

South Africa and its workforce have undergone dramatic changes since the emergence of the new democracy in 1994 (Saks, 2006). Due to the current global economic climate, the skills shortages in South Africa, and the increased focus on positive organisational behaviour and positive organisational scholarship, organisations need employees who are more committed, willing to go the extra mile, good analytical thinkers, resourceful, energetic, and psychologically resilient. Against this backdrop, it is important to engage the right employees – employees that demonstrate the right behaviours, especially in today’s economic conditions. There is a vast body of evidence that now supports the view that employee engagement is critical for both short-term survival and longer-term business performance, as well as better competitive positioning when market conditions become more stable (Wollard & Shuck, 2011).

Bakker (2011) maintains that although research on employee engagement is flourishing within the national and international research arena, there are still many lessons to be learnt about engaged employees. For example, consultancy studies indicate a decline in the number of engaged employees. A global study by Towers Perrin (2008) found only 21% of the sample’s employees to be engaged with their work, and 38% of sampled employees were moderately or fully disengaged from their work. Research conducted by Gallup (2010) shows that 11% of employees worldwide are engaged in their job, 62% are not engaged, and 27% are actively disengaged. More recently, research by Gallup (2013), who conducted a study among 26 countries and territories in Sub-Saharan Africa over the course of 2011 and 2012, found that

9% of South African employees are engaged and 91% of employees are not engaged. South Africa also reported one of the highest percentages of disengaged employees in the world.

Employee engagement has been identified as an important challenge in the South African concept due to broad based black economic empowerment, lawed by the South African government. In order for South African organisations to provide an environment that encourages higher levels of employee engagement it is necessary for strategy drivers to understand how different employees are engaged in order for organisations to formulate effective employee engagement strategies.

Jones and Harter (2005) and Jones, Ni, and Wilson (2009), state that that one area of employee engagement that has been under researched is the effect that race has on employee engagement. Most research conducted focuses on other demographic variables such age, qualification and job level (Coetzee & Rothmann, 2005; Bell & Barkhuizen, 2011; Coetzee & de Villiers, 2010). Due to the racial composition of South Africa and the different backgrounds from which employees originate, there are numerous logical reasons to suspect that an individual's race might have an impact on how employee engagement is experienced by employees from different races which has a direct impact on individual and organisational level outcomes (Jones & Harter, 2005; Jones, Ni & Wilson, 2009).

According to Moerdyk (2009, as cited in Nienaber & Martins, 2014), in a multicultural country such as South Africa, with various race groups, ethnic groups, languages and other demographic differences, it is important to take cognisance of these differences in order to ensure that the assessment process is fair. Byrne and Stewart (2006) purported that measurement invariance is of critical importance in multi-group comparisons. Undeniably it is of utmost concern that an instrument/questionnaire/assessment measures the same construct exactly the same across different sample groups. If it has been established that an instrument does not have measurement equivalence across different sample groups, the interpretation of sample/demographic differences would be questionable. This is due to the fact that such interpretations would lack definitiveness with regard to knowing whether the differences are as a result of true attitudinal differences or psychometric differences as they relate to the item responses. Therefore, the concern of measurement invariance is of particular importance in cross-cultural research to establish whether an instrument performs exactly the same way

across different sample groups, as it has been found that these assumptions are rarely tested statistically (Byrne & Stewart, 2006).

As reported above, employee engagement levels are on the decline across the globe (Deloitte, 2014). The growing pressure on South African organisations to enhance their financial performance and sustain their competitiveness requires engaged employees, especially in the financial industry (João & Coetzee, 2011). The financial industry is known for its quest to attract, retain, motivate and develop talent from diverse groups of people due to the nationwide skills shortage in this industry (DHET, 2014; João & Coetzee, 2011; South African Institute of Chartered Accountants, 2008), thus emphasising the importance of employee engagement in this industry. A study by Aon Hewitt (2011) shows that overall engagement levels dropped by four percent from 2009 to 2010. The results showed that the financial industry is the main industry that declined in engagement levels from 2009 to 2010. According to E-Trinity (2014), the financial industry shows the lowest levels of employee engagement of all industries, according to research by Weber Shandwick. Results from the study indicated that employees in the financial industry reported the lowest mean scores with regard to vigour in jobs. Deloitte (2014) stated that employee engagement is the number two on the priority list for most industries. Results from financial industries in South Africa indicate that 89% of organisations in the financial industry agreed that employee engagement is important, while 28% of organisations rated that they are not ready for the trend of employee engagement. In total only 19% of the respondents from the financial industry agreed that they are equipped with the necessary knowledge and strategies to improve engagement levels in their organisations (Deloitte, 2014).

Based on the above, the purpose of the research study is to determine the factorial invariance of a South African-developed employee engagement instrument across different race groups by means of structural equation modelling for financial institutions. Furthermore, this study also aims to investigate impact that race has on employee engagement, in order for the researcher to understand the main reasons why some race groups are more engaged at work than others.

This study thus attempted to fill the gap in knowledge regarding employee engagement within financial institutions in a multicultural South African context, particularly with regard to race. Implications from this study may assist organisations (Industrial and Organisational



Psychologists/Human Resources Practitioners) and academics in identifying ways of effectively engaging employees physically, emotionally and psychologically.

### **1.2.1 Research questions with regard to the literature review**

The following literature research questions have been constructed for this study:

- How is employee engagement conceptualised in the literature?
- What are the individual and organisational level antecedents of employee engagement?
- How does race impact on employee engagement?
- How do different demographic variables (gender, qualification, generation group, language) impact on employee engagement?

### **1.2.2 Research questions with regard to the empirical study**

The following empirical research questions have been constructed for this study:

- Is there a statistically significant difference or relationship between race and employee engagement in financial institutions?
- What is the factorial invariance of employee engagement across the various race groups in financial institutions?
- What recommendations and areas for future research based on the research findings, can be proposed for the field of Industrial and Organisational Psychology with regard to employee engagement?

## **1.3 AIMS OF THE RESEARCH**

From the above problem statement and research questions the following objectives were formulated for this study.

### **1.3.1 General aim of the study**

The primary research objective is to determine the factorial invariance of the employee engagement instrument across the various race groups in financial institutions by means of structural equation modelling. Furthermore, this study wished to explore if differences exist between the different race groups for the dimensions of the employee engagement instrument.

### **1.3.2 Literature Aims**

The literature objectives of this study were as follows:

- To conceptualise employee engagement from literature.
- To conceptualise the individual and organisational level antecedents of employee engagement.
- To conceptualise the impact of race on employee engagement.
- To conceptualise how different demographic variables (gender, tenure, qualification, generation group, language) impact on employee engagement.

### **1.3.3 Empirical Aims**

The empirical objectives of this study were as follows:

- To determine the factorial invariance of employee engagement across the various race groups by means of structural equation modelling in financial institutions.
- To determine if any statistically significant differences exist between the results of different race groups and the various dimensions of employee engagement in financial institutions.
- To suggest practical recommendations for Industrial and Organisational Psychology practices with regard to the management and development of employee engagement.

## **1.4 HYPOTHESES**

Based on the problem statement, research questions and objectives of the research the following hypotheses have been formulated.

- H1: Race groups in financial institutions display invariance with regard to the EEI.
- H2: Employees from different race groups in financial institutions differ significantly with regard to employee engagement.

## 1.5 PARADIGM PERSPECTIVE

Johnson and Christensen (2014) define a paradigm as a viewpoint or perception held by a researcher that is grounded on a set of shared assumptions, ideas, notions, theories, values and practices. In layman's terms, it is the rationale and thinking behind the research and the process to be followed when conducting research. A research paradigm is characterised along five dimensions: (1) the ontology, which refers the nature of reality and truth; (2) the epistemology, which deals with the relationship between the inquirer and the knowable; (3) the methodology, which describes how the research will be conducted; (4) the axiology, which refers to the role of values and ethics in the research process; and (5) the rhetoric, which refers to the language and communication that will be used to present the argument.

### 1.5.1 Intellectual climate

#### 1.5.1.1 *Positive Psychology*

Linley, Joseph, Harrington and Wood define positive psychology as the scientific study of optimal human functioning. At the meta-psychological level, it aims to redress the imbalance in psychological research and practice by calling attention to the positive aspects of human functioning and experience. At the pragmatic level, it is about understanding the wellsprings, processes and mechanisms that lead to desirable outcomes. (2006, p. 5)

Furthermore, the optimisation of human strengths, resilience and full human functioning are key focus areas in positive psychology. By focusing on positive emotions it increases an individual's focus span and stretches a person's intellectual capacity resulting in enhanced job performance (Linley et al., 2006; Bull, 2008).

According to Christopher, Richardson and Slife (2008), Seligman envisioned three primary objectives for positive psychology:

- The first objective is to define and measure positive traits to enable us to understand and develop human strengths.
- The second objective is to encourage and stimulate encouraging experiences and emotions.

- The third aim is to create positive communities and organisations that will exemplify, develop and enrich the identified strengths and experiences (Christopher, Richardson, Slife, 2008).

Employee engagement is a positive construct; as such using positive psychology to understand employee engagement and exploring other positive constructs such as self-actualisation, emotional intelligence, hope, optimism, perseverance, and resilience can assist organisations to develop and promote a workforce that is psychologically engaged by their work.

#### *1.5.1.2 Humanistic Psychology*

Abraham Maslow conducted the first major humanistic psychology study in 1935, which focused on the nature of self-actualisation. The particular study was conducted over a 20-year period and identified self-acceptance, the ability to build flourishing relationship with others, social responsibility, problem solving, spontaneity, vision, and realism as key characteristics to self-actualisation (Bar-On, 2010).

Ryan and Deci (2000) maintain that providing employees with challenging tasks, feedback and autonomy creates intrinsic motivation and enhances an employee's level of engagement. Moreover, humanistic psychology argues that each being has unique qualities which are their freedom and potential for growth. Additionally, humanistic psychology also focuses on enhancing hope, growth, interpersonal responsibility, joyfulness, and awe (Wong, 2006). Employee engagement is described as the degree to which employees demonstrate discretionary effort when performing their work roles (Frank, Finnegan & Taylor, 2004). Humanistic psychology is therefore relevant as engaged employees make the conscious decision to go the extra mile within the job roles. As a result of employee engagement, personal growth is likely to occur.

#### *1.5.1.3 Positivist Approach to Research*

Positivism is a common research approach that is frequently used in psychological, chemistry and medical research and is often referred to as the scientific approach. Positivism allows researchers to collect data that is of a quantitative and objective scientific nature and uses sophisticated statistical techniques to analyse the data (Walsh, 2001). Neuman (2000) defines positivism in the following way:

Positivism sees social science and an organised method for combining deductive logic with precise empirical observations of individual behaviour in order to discover and confirm a set of probabilistic causal laws that can be used to predict general patterns of human activity. (2000, p. 6)

The positivist approach relies on the following basic assumptions:

- A highly structured research process should be used to establish scientific ‘truths’ to about the world.
- Knowledge gained through scientific statistical analysis is valid and reliable.
- Positivism relies on quantitative methods to avoid the subjectivity and biases of the researcher and to ensure an independent outcome.
- Positivism often attempts to test and establish relationships between different variables.
- Theories and paradigms are used to predict future relationships and behaviours.
- The researcher is allowed to limit the resources used to collect the data as a means of ensuring validity and reliability of the data.
- The approach develops research questions, objectives and hypotheses to test for statistically significant relationships or differences.
- Uses validity and reliability to generalise findings to the broader population. (Walsh, 2001; Anderson, 2004)

A positivist research approach was followed in this study.

### **1.5.2 Meta-theoretical statements**

A meta-theory is defined as the theory of theories. Meta-theoretical discourses attempt to provide an analysis of how theory was constructed in the past, is constructed in the present and will be constructed in the future. Furthermore, meta-theoretical statements present fundamental assumptions about the nature of the reality and the science which are embedded in certain theories and other relevant contexts (Bearison & Zimiles, 2014). For this study the below meta-theoretical statements were considered.

### *1.5.2.1 Industrial and Organisational Psychology (IOP)*

According to Pathak (2007), the field of Industrial Psychology is defined as the scientific study of people as individuals and groups and the relationship between organisations, individuals and groups. It is focused on using psychological facts and principles to solve problems concerning human beings in the work environment. Landy and Conte (2007) define Industrial and Organisational Psychology as the scientific study and the application of psychological principles to the work environment in order to understand and improve the employee's work behaviour and work conditions. Moreover, Landy and Conte (2007) state that organisational psychology stems from social psychology and addresses issues related to the emotional and motivational side of work. In other words, Industrial and Organisational psychology focuses on redefining, developing and researching psychological constructs to enhance individual and organisational performance and to improve the working condition of employees within organisations.

To achieve a competitive advantage and a workforce that is efficient and effective, the focus should not only be on recruiting the cream of the crop (best talent), but organisations should also focus their efforts on motivating employees to perform their work functions to the best of their abilities. As a result, organisations need to attract and retain employees who are proactive; emotionally, physically and psychologically attached to their work; and employees who are performance- and quality-orientated. In other words, it is essential that organisations ensure that their employees are personally and psychologically engaged to their work (Bakker & Leiter, 2010).

### *1.5.2.2 Career Psychology*

The mid 1980s and early 1990s saw a drastic change in the importance and psychology of careers. Career psychology focuses on the relationship between individuals and their social and work environments. Career psychology also seeks to understand the nature of jobs held by individuals throughout their lifespans and the physical and psychological experiences they experienced while occupying those jobs (Arnold & Randall, 2010, as cited by Schreuder & Coetzee, 2010). A key area in career psychology is career development. Career development, according to Sears (1982, p. 139, as referenced by Patton & McMahon, 2006), refers to “the total constellation of psychological, sociological, educational, physical, economical and chance

factors that combine to shape the career of an individual over their life span”. Other areas of interest within career psychology include the following:

- individual aptitudes;
- personality;
- vocational interests;
- career orientations;
- how an individual’s motives, values and environmental factors impact on their education and training abilities;
- employability;
- career embeddedness and mobility;
- career well-being;
- employee, job, organisational and career satisfaction;
- work-life balance; and
- career plateaus (Schreuder & Coetzee, 2010).

Personnel psychology and organisational psychology have assisted the field of career psychology in understanding challenges that individuals face with regard to their careers. A study conducted by Brotherton (2012, as cited by Coetzee, Schreuder, & Tladinyane, 2014) found that career-related needs and desires influenced employee engagement. The results also indicated that the working environment (managers, teams, job resources and demands) and the type of work (meaningful work, job autonomy, job enrichment, challenging job tasks, etc.) influence an employee’s engagement.

### *1.5.2.3 Personnel Psychology*

Landy and Conte (2007) maintain that Personnel Psychology focuses on practices such as sourcing, recruitment, selection, retention, turnover, performance management, promotions, transferrals, and training and development of individuals in order to achieve individual, group, and organisational goals. Personnel psychology further allows practitioners to understand the individual differences with regard to attributes and work behaviour and how these can be utilised to maintain, predict and improve performance and employee job satisfaction. In addition, Schreuder and Coetzee (2010) posit that personnel psychology also deals with

psychological assessment, rewards and compensation, career development and ensuring that organisations adhere to labour legislation.

Research conducted by Bakker and Demerouti (2008) indicate that job resources such as peer support groups, performance feedback, training and development, meaningful work, and job autonomy are positively related to employee engagement. Job resources can be defined as those aspects of the job that promote learning and individual growth and development, hence job resources does not only deal with challenging job demands but also improve employee engagement (Schaufeli & Bakker, 2004).

#### *1.5.2.4 Conceptual descriptions*

Macey and Schneider (2008) proposed a theoretical taxonomy based on Kahn's conceptual framework and states that employee engagement should be viewed as a multidimensional construct which comprises of three different forms of engagement, namely trait, state, and behavioural engagement.

Trait engagement is defined as the inclination or orientation to experience the world from a particular vantage point. Psychological state engagement is defined as an antecedent to behavioural engagement (encompassing the constructs of satisfaction, involvement, commitment, and empowerment) and behavioural engagement was defined in terms of discretionary effort. (Macey & Schneider, 2008, p. 6)

## **1.6 RESEARCH METHODOLOGY AND DESIGN**

The following sections will elaborate on the research design utilised in this study. This will be discussed with specific reference to the research type, the sampling method, the measuring instrument, validity, reliability, and ethical aspects.

A scientific quantitative, cross-sectional survey and descriptive research design were utilised to achieve the research aims and objectives. A cross-sectional research design involves drawing a sample from the target population at a specific point in time (Babbie, 2013). Descriptive research designs focus on establishing whether there are statistically significant differences or relationships between different variables (Struwig & Stead, 2001). Descriptive research designs allow researchers to describe the characteristics of the population or sample.



### **1.6.1 Research variables**

Johnson and Christensen (2014, p. 39) define a research variable as a “condition or characteristic that can take on different values or categories”. Quantitative variables refer to variables that differ with regard to degree and quantity. Furthermore, variables can be separated into dependent and independent variables. A dependent variable refers to a variable that can be influenced by one or more variables, whereas an independent variable refers to a variable that causes change in another variable. In this study the dependent variable was employee engagement and the employee engagement dimensions (team, job satisfaction, customer service, organisational commitment, immediate manager, nature of my job), whereas the independent variable was race.

### **1.6.2 Techniques used to ensure reliability and validity**

The validity and reliability of the empirical study were ensured and measured by the following means.

#### *1.6.2.1 Validity*

Validity can be defined as the agreement between a test score or measure and the quality it is believed to measure (Kaplan & Saccuzzo, 2009). The measuring instrument used in this study was developed by Nienaber and Martins (2014) through a comprehensive literature review (qualitative study on employee engagement) and was validated using exploratory and confirmatory factor analysis. Confirmatory factor analysis was also used to determine the structure of the measuring instrument (Martins, 2015; Nienaber & Martins, 2015). Structural Equation Modelling was used to test the construct validity and other psychometric properties of the measuring instrument (Cartwright & Cooper, 2008; Martins, 2015; Nienaber & Martins, 2015). External validity occurs when the findings or results can be generalised to other people, times and contexts (Black, 2012). Correct sampling with a representative sample will allow generalisation and hence give external validity. The cross-sectional research design employed in this study does not allow the researcher to prove external validity for the current study.

### 1.6.2.2 *Reliability*

In order to ensure that the research questionnaire produces consistent results, the researcher had to determine the reliability of the instrument. “Reliability refers to the extent to which the observable (empirical) measures that represent a theoretical concept are accurate and stable when used for the concept in several studies” (Bless, Higson-Smith, & Kagee, 2006, p. 149). The reliability of the instrument was calculated by testing the internal consistency, which was determined by calculating the average inter-item correlation and testing Cronbach’s Alpha. This ensured the valid and reliable interpretation of the results through the use of statistical analysis supported by standardised techniques, and obtaining a representative sample.

Additionally, the researcher ensured validity and reliability in the following ways:

- Confirming the validity and the reliability of the instrument for financial institutions that had already been validated by academic researchers (Martins, 2015; Nienaber & Martins, 2015).
- Collecting data from a representative sample adequate to support statistical and practical significance given the descriptive nature of the study.
- Using a trusted statistical software programme to ensure valid and reliable interpretation of results, supported by standardised statistical techniques.
- The data obtained was stored on an online database which was password encrypted. Only the researcher, the research supervisor and the statistician had access to the data, thereby ensuring the security of the data.

### 1.6.3 **Sample design**

The sample design refers to the process that was used to select individuals from the sampling frame to include in the sample (Burt, Barber, & Rigby, 2009).

#### 1.6.3.1 *Target Population*

The conceptual definition of the target population refers to a population from which one would want to collect data if one is conducting a complete census rather than a sample survey and information from which one can make inferences (Malhotra, 2010). Furthermore, it is stated that an eligible population refers to the population elements, sampling units and the time it took

to conduct the research. The sampling unit of this study was people from different socio-demographic groups who are registered on a business research database.

#### *1.6.3.2 Sampling frame*

The sampling frame refers to a set of elements of the target population in the form of a list or set of characteristics which enables one to identify the target population (Malhotra, 2010).

#### *1.6.3.3 Sampling Technique*

The database utilised in this study was obtained from a research company, and consisted of approximately 285 000 businesspeople from various cultural and educational backgrounds, industries, sizes of business, job levels, and job roles reflecting the profile of the South African working population. The database is known as a permission database, which means that every person whose information is stored in the database gave their permission and agreed to participate in research initiatives should they be approached to complete online surveys. Therefore, non-probability convenience sampling was used to attract a sample of  $n = 1175$  respondents from financial institutions. Convenience sampling can be defined as a sample in which only convenient or accessible members of the population are selected (Burt et al., 2009).

### **1.6.4 Measuring instrument**

The five-point Likert employee engagement instrument developed by Nienaber and Martins (2014) was used to measure employee engagement at both an individual level (individual growth and development) as well as at the organisational and team level (performance quality) (Bakker and Schaufeli, 2014).

The first section of the questionnaire, “demographic information”, encompasses six variables which include tenure, generation group, race, gender, job grade, and highest qualification.

The instrument measures engagement at individual, team, and organisational level(s), as it reflects the individual employee’s work role and role as organisational member. The survey is divided into six dimensions. The first dimension, “*Team*”, comprises twelve items, each of which focuses on team work. The second dimension, “*Organisational Satisfaction*”, consists of nine items measuring organisational and job satisfaction. The third dimension, “*Customer*

*Service*”, has six items and measures the sample’s/employees’ perceptions of the organisation’s customer service and its customer service strategy. “*Organisation commitment*” consists of six items and measures employees’ commitment to their jobs, organisation and organisation’s vision, mission, and goals. The fifth dimension, “*Immediate Manager*”, is made up of seven items and measures how the employee’s immediate manager engages the employee through his/her actions and support. The final dimension, “*Strategy and Implementation*”, comprises eleven items and measures the employee’s perception of leadership within the organisation, the organisation’s strategy, and the employee’s involvement in strategy development and implementation (Nienaber & Martins, 2014).

A twofold study by Nienaber and Martins (2015) used exploratory factor analysis to determine the factorial structure of the scale and subscales. Results of the second study confirmed the construct validity of the measuring instrument by means of confirmatory factor analysis (Nienaber & Martins, 2015). The overall reliability of the Cronbach’s alpha coefficient of the Employee Engagement scale measured at 0.918 and the internal consistency of the subscales ranged from 0.895 and 0.951 (Nienaber & Martins, 2015). According to Malhotra (2010), 0.70 is the recommended minimum cut-off.

### **1.6.5 Data collection**

Data was collected by means of an electronic survey that was sent to potential respondents by means of a mass e-mail, inviting them to participate in the study. Each potential respondent was sent a personalised e-mail containing a link to an online survey, stating the purpose of the research and inviting them to participate in the survey on a voluntary, confidential, and anonymous basis. The researcher guaranteed the participants that the responses would remain anonymous and that the responses would not be linked to identifying information.

An online survey tool used to store the data and was subsequently exported to an Excel data sheet and imported to SPSS (version 22) for the purpose of data analysis. Data collected was protected by means of encryption and a passcode and only the researcher, research supervisor and statistician had access to the data.

### 1.6.6 Data analysis

The study was quantitative in nature. Punch (2013) defines quantitative research as empirical research where the data is made up of numbers. Punch (2013) further posits that quantitative research is more than just numbers; it is a structured approach and encompasses a way of thinking and a set of different research methods.

Data analysis consisted of both descriptive and inferential statistical analysis. According to Aron, Aron, and Coups (2008), descriptive statistics are used to summarise and describe the sample. Inferential statistics, on the other hand, are used to determine whether a relationship exists between variables, whether the results can be generalised to the entire population, and to make other statistical inferences (Aron et al., 2008).

Exploratory and confirmatory factor analysis was used to confirm the factor structure of the instrument. Cronbach's alpha coefficients were calculated for each of the subscales to determine the internal consistency between the items, measuring each construct to evaluate the reliability of the measuring instrument. Pearson's product-moment correlation coefficient was calculated to determine the relationships between all the subscales of the measuring instrument. Analysis of variance (ANOVA) was utilised to calculate the potential influence of demographic variables on each of the employee engagement subscales, as suggested for interval scales (Malhotra, 2010). ANOVAs were also calculated to determine if demographic variables (race) can account for any significant differences and to learn more about the origins of the psychometric variables included in the study. Where there were three or more sub-variables, Scheffé tests were calculated to determine where the significant differences occurred. Furthermore, Cohen's *d* was utilised to determine the strength of the relationships.

Structural equation modelling (SEM) was used to determine the factorial invariance of the employee engagement questionnaire across the various race groups. Structural Equation Modelling is a multivariate statistical method combining aspects of multiple regression analysis and factor analysis to evaluate and determine a series of interrelated dependence relationships simultaneously (Black, 2012). Microsoft Excel, Statistical Programme for Social Sciences (SPSS) (version 22), and Analysis of Moment Structures (AMOS) (version 12) were used by the statistician to analyse the raw data.

### **1.6.7 Methods to ensure ethical research principles**

To ensure that the research was conducted within an ethical framework, the following ethical issues were taken into consideration:

- The researcher acknowledged that plagiarism is a serious offense and is aware of the severity and consequences of plagiarism.
- The researcher refrained from plagiarism by acknowledging, crediting and referencing all literature sources consulted.
- Informed consent was obtained from all participants and participants were assured of their right to confidentiality and anonymity.
- Participants were also informed that their participation in the study was completely voluntary, that they had the option to refuse participation, and that they were allowed to exit the research questionnaire at any point without any consequences.
- Data obtained through the electronic questionnaire was treated with the strictest security and no data was falsified.
- The researcher ensured that no harm was caused to participants during the collection of the data.
- Ethical clearance was sought and obtained from the Research Committee of the University of South Africa.

## **1.7 RESEARCH MODEL**

This study was split into two phases, namely the pre-empirical phase and the empirical phase. The simplified research model of Punch (2013), shown in Figure 1.1, formed the foundation of the research methodology to be followed for this study.

### **1.7.1 Phase 1: Pre-empirical**

The pre-empirical stage included the following steps:

- Step 1: Identify the research area and relevant topic.
- Step 2: Discuss the context of the study.
- Step 3: Formulate the literature objectives of the study; conceptualise employee engagement from secondary literature.
- Step 4: Conduct the literature review relevant to the literature objectives identified.

- Step 5: Formulate the research questions and empirical aims of the study.

### 1.7.2 Phase 2: Empirical

The empirical stage of this study was executed as follows:

- Step 1: Discussion of the sample design (target population, sample frame, sample technique).
- Step 2: Description of the measuring instrument to be used during the data collection phase.
- Step 3: Data Collection.
- Step 4: Employ various statistical techniques to process raw data.
- Step 5: Report on descriptive and inferential statistics.
- Step 6: Integrative discussion of the literature review and empirical findings.
- Step 7: Discussion of the limitations, recommendations and conclusion.

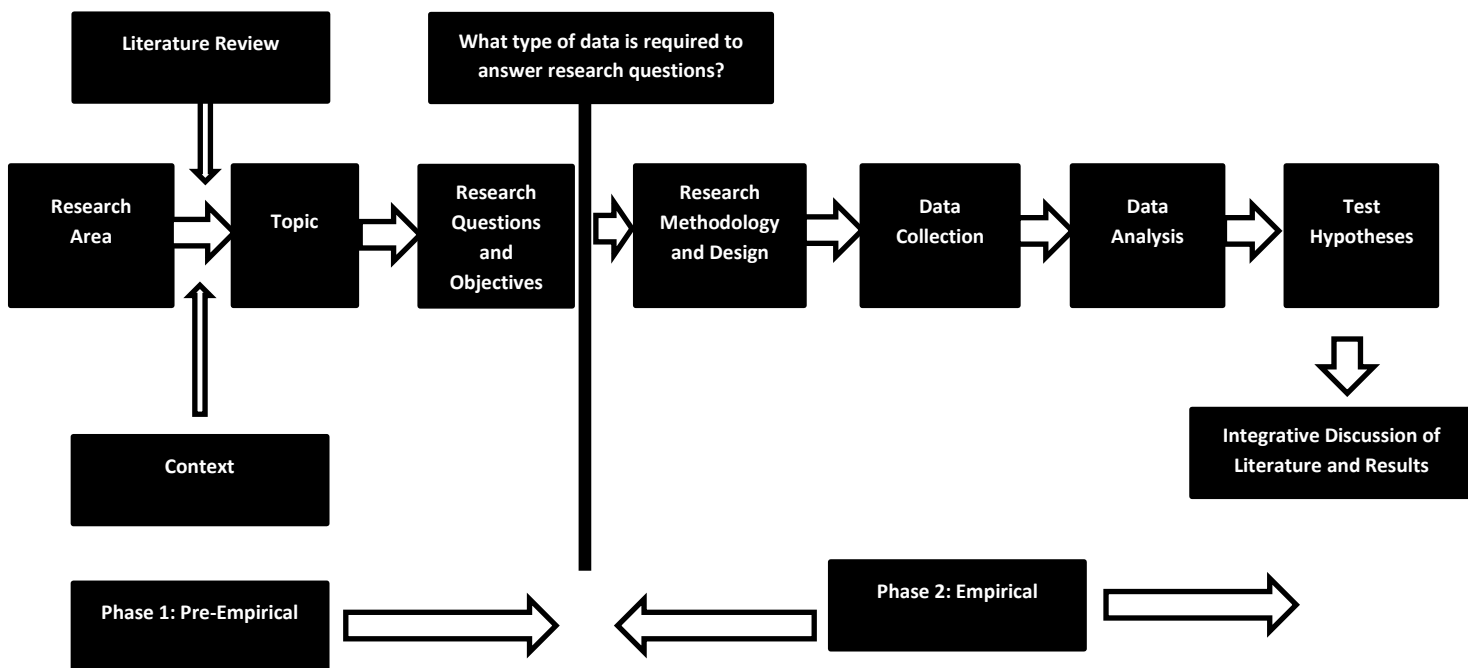


Figure 1.1: Simplified research model (adapted from Punch, 2013)

## 1.8 CHAPTER LAYOUT

The outline of this study will be as follows:

### **Chapter 1: Scientific Orientation to the Research**

The purpose of this chapter was to provide an overview and breakdown of the research problem, research questions and the significance of the study. Furthermore, this chapter focused on the main research and literature objectives of the study, and based on these, specific research aims and hypotheses were formulated.

### **Chapter 2: Literature Review**

This chapter aimed to provide a holistic literature review of the important concepts/constructs relevant to employee engagement. Furthermore, it provided a discussion of the individual and organisational level antecedents of employee engagement and brought to light the similarities and contradictory arguments which exist with regard to employee engagement.

### **Chapter 3: Research Article**

This chapter aimed to provide the methodology used to conduct the research. The chapter also focused on the research methodology and design with specific reference to the research variables and methods used to ensure the validity and reliability of the data. Following this the researcher presented a description of the sample design (target population, sample frame and sample technique), measuring instrument, data collection method, data analysis techniques, and ethical considerations. Furthermore, the results of the quantitative data collected were reported and discussed. Finally, this chapter provided integrative discussion of the literature sources consulted and the empirical results of the study.

### **Chapter 4: Conclusions, Limitations and Recommendations**

This section of the research study aimed to provide the reader with a summary of literature review and empirical research investigation. A summary of the method and key findings of the study were presented. Implications for management were noted, and the limitations of the study were presented along with recommendations for future research.



## **1.9 CHAPTER SUMMARY**

In conclusion this chapter provided the reader with a detailed description of how the researcher conducted the current study. Although research on employee engagement is flourishing both nationally and internationally, this study explored the impact of race on employee engagement which is currently under researched in South Africa. In doing so, this research added to the body of literature that already exists on this topic.

Chapter 2 presents a literature review based on the literature objectives as specified in chapter 1.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 INTRODUCTION**

This literature review will provide the necessary insight into the different elements involved in this study, namely employee engagement, the individual and organisational level antecedents of employee engagement, the impact of race and other demographic variables on employee engagement, and the criticisms of employee engagement.

### **2.2 HISTORY OF EMPLOYEE ENGAGEMENT**

The concept of engagement first emerged in 1990. Kahn (1990, p. 694) formed the foundation of employee engagement and conceptualised it as “the harnessing of organisation member’s selves to their work roles in engagement, people employ and express themselves physically, cognitively and mentally while performing their job tasks”. A decade later, Maslach, Schaufeli, and Leiter (2001) conducted the first major work on employee engagement after the initial introduction of the term by Kahn (1990). These authors conceptualised employee engagement as the positive state of burnout. Harter, Schmidt, and Hayes (2002) defined employee engagement as an individual’s involvement, satisfaction, and enthusiasm for work, and published the first research study that focused on employee engagement and its relationship with profit. Two years later, May, Gilson, and Harter (2004), conducted a research study whereby they empirically tested Kahn’s employee engagement model. By 2006, employee engagement gained more momentum and this year was marked by the first research study focused on determining the antecedents and consequences of employee engagement (Saks, 2006), followed by Vance (2006), who was the first researcher to test the relationship between employee engagement and commitment. In 2008, Macey and Schneider conceptualised employee engagement as separate engagement constructs, namely trait, state, and behavioural engagement. Figure 2.1 visually illustrates the history and development of employee engagement (Shuck & Wollard, 2010).

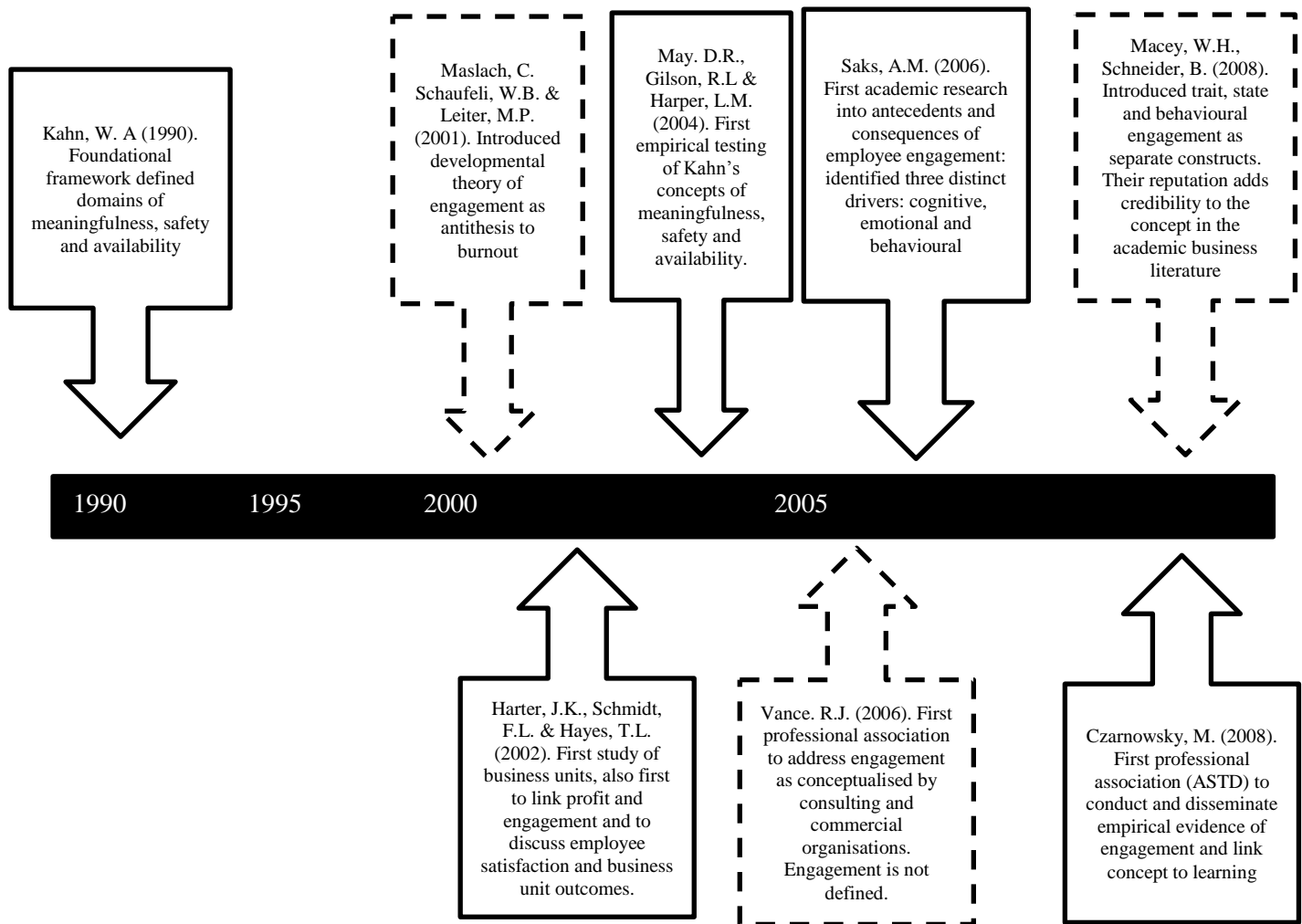


Figure 2.1: History and development timeline of employee engagement development

(Adapted from Shuck & Wollard, 2010)

Employee engagement finds its roots in Occupational Health Psychology (OHP) and suggests that in order for organisations to exist in the current macro and micro environment, which are characterised by turbulence, rapid growth, and continuous change, it requires employees who are motivated and of good health (Schaufeli & Salanova, 2007). Donaldson and Ko (2010) posited that the field of positive psychology has played an important role in the current conceptualisation of employee functioning by emphasising the importance of promoting positive manifestations (well-being) and eradicating negative ones (ill-being). The positive psychology movement emphasises concepts such as proactivity, strengths, virtues, excellence, thriving, happiness, flourishing, resilience, flow, and optimal functioning (Donaldson & Ko, 2010). This conceptual shift has prompted academics and organisational practitioners to investigate what influences the well-being and ill-being of employees (Trepanier, Fernet, Austin & Menard, 2015).

### 2.3 CONCEPTUALISATION OF EMPLOYEE ENGAGEMENT

The business environment continuously experiences change; however, the current work environment is changing at a much faster and more intense pace than ever before (Richman, 2006; Rothmann & Rothmann, 2010). Work in the present day is becoming less structured and more fluid and is no longer bound by space and time as a result of the rapid advancements in technology and globalisation. This, coupled with changes in demographics of countries, rising two-income families, and a more skilled workforce that wants to be in control of their careers; is creating a unique work environment (Strategic Human Resources Management, 2014).

Lu, Wang, Lu, Du, and Bakker (2014), purport that organisations in the present day are facing various challenges and are under immense competitive pressure to survive and progress in an ever-changing world of work. As a result, organisations have embarked on a talent management process to attract, retain, develop, and motivate employees who are energetic, loyal, positive, and completely engaged in their work to ensure the excellence of their human resources function, which is of critical importance to the success and sustainability of organisations, especially in business environments that are characterised by uncertainty (Lu et al., 2014).

Sardar, Rehman, Yousaf, and Aijaz (2011) posit that the changing organisational landscape requires of organisations to achieve a competitive advantage in order to achieve success. This competitive advantage is achieved by realising that there should be a mind-set shift from focusing on profit only to a focus on the attraction, retention, motivation, and development of talent. Employee engagement has been identified as one of the most effective tools organisations can utilise in order to achieve a competitive advantage (Pech & Slade, 2006; Sardar et al., 2011). Furthermore, Sardar et al. (2011) propose that employee engagement in an organisational context can be viewed as similar to continuous improvement, change and flexibility. It is therefore not surprising that employee engagement has gained significant popularity in management sciences and scientific literature.

Vance (2006) states that engaged employees display a great desire to improve their work performance by redesigning their work processes (such as the standard operating procedures) and are often willing to put in the overtime, brain power, and energy to achieve a greater outcome. Vance (2006) further states that engaged employees also display a great need to continually improve, develop and grow their knowledge and skills, which serves as an

advantage for organisations as this allows organisations to tap into those skills and knowledge when required. Saks (2006) further states that employees who are engaged have higher levels of trust in their organisations, which can be seen as a positive feeling towards the organisation, mediating an individual's intention to quit. Schaufeli and Salanova (2007) maintain that engaged employees continuously seek new challenge and adventures in their work and that they also provide high quality work. Tomic and Tomic (2010) assert that employees who show high levels of employee engagement exert extra effort into their work, as a result of their enjoying the work and not as a result of inner motivation alone. Even when engaged employees experience fatigue, engaged individuals describe the feeling as rewarding due to the positive achievement associated with the fatigue, an assertion reemphasised by Eldor and Harpaz (2016). Robertson and Cooper (2010) assert that employee engagement is important for numerous reasons; however, one of the most important reasons is the positive impact it has on the physical, emotional and psychological well-being of employees (Schueller & Seligman, 2010). Shuck, Reio, and Rocco (2011) purport that employee engagement is important to organisations in numerous ways. These authors purported that employees who are engaged often outperform their disengaged counterparts on various different performance measures.

Bakker (2009; 2011) presents the following reasons for higher performance of engaged employees as compared to lower performance of disengaged employees: Engaged employees (1) regularly experience positive emotions such satisfaction, delight, zeal and passion; (2) sustain greater health; (3) generate their own job and personal resources; and (4) transmit their engagement to colleagues. Bakker and Xanthopoulou (2009), Sorenson (2013), and Harter (2013) argue that as a result of most organisations' working in teams, the engagement of one employee could indirectly transfer to other employees and enhance the performance of the team in which they work. Therefore, when employees are disengaged it could have a negative impact on the performance of the team as well as the organisation as the employee would not be displaying the above attitudes and emotions with regard to their work. Bakker, Albrecht, and Leiter (2011) highlighted that during performance appraisals engaged employees are often rated higher, especially with regard to discretionary behaviours, indicating greater influence on daily business. Further to the above, engaged employees also display a great need to understand their work roles in relation to the organisational strategy (Shroeder-Saulnier, 2010).

Fairlie (2011) stated that employee engagement, whether at individual or organisational level, has attracted increased attention amongst researchers, academics, and practitioners with aspects

such as its antecedents and significances (Saks, 2006), its nature, drivers and best practices (Macey & Schneider, 2008; Macey et al., 2009), measurement (Nienaber & Martins, 2014; Schaufeli, Bakker, & Salanova, 2006), and outcomes (Gallup 2013; Rothmann & Rothmann, 2010; Saks, 2006) having all been researched since the inception of employee engagement in organisational behaviour literature. This increased focus on employee engagement emanates from the important role employee engagement plays in enhancing organisational performance, improving business results and the sustaining of a competitive advantage (Nienaber & Martins, 2014).

Richman (2006), Bakker (2011), and Rana (2015) maintain that despite the increased attentions and research efforts employee engagement receives, survey research consistently found a decrease in the level of employee engagement in many different continents (Gallup 2013; Jorgensen 2006; Robertson & Cooper 2010; Saks 2006; Saks & Gruman, 2014). The decline in employee engagement can be attributed to a lack of proper planning with regard to the implementation of employee engagement interventions that are not carefully thought through and as a result not delivering favourable outcomes (Jorgensen, 2006; Markos & Sridevi, 2010). Research by Blessingwhite (2011) in the United States, Canada, India, Europe, Southeast Asia, Australasia, and China found that out of the 11 000 human resources practitioners and line managers, 31% were engaged and 17% of the sample were disengaged. Survey research conducted by Gallup (2013) in 142 countries showed that only 13% of individuals were engaged by their organisations. Results also found that actively disengaged workers outnumbered the number of engaged employees at a ratio of two to one. Specifically, results obtained from Australia and New Zealand found that 60% of employees were not engaged in their work and that 16% of employees are actively disengaged from their work roles. In Sub-Saharan Africa results indicate that during the course of 2011 and 2012 only 9% of South African employees were engaged and 91% of employees were not engaged. South Africa also reported one of the highest percentages of disengaged employees in the world (Gallup, 2013).

Johnson (2011) notes that the achievement of employee engagement lies in the behaviours displayed by engaged employees. Parkes (2011) posited that an engaged employee shares the DNA of an organisation and demonstrates a strong belief in and commitment to the purpose, principles and values and overall success of the organisation. Strom, Sears and Kelly (2014) are of the opinion that the most successful companies have a few things in common; one of those things being employees who are entirely physically, psychologically and emotionally

engaged by their work. Therefore, it is important that organisations find ways of engaging their employees. This can be done by creating and promoting a work environment that is positive, supportive, motivating and develops high quality leadership. By providing employees with meaningful work, autonomy, challenge, and social support, and by treating employees with dignity and respect, organisations can improve the levels of employee engagement amongst their workers. This in turn leads to greater levels of physical and cognitive performance amongst engaged employees, compared to their disengaged counterparts (Eldor & Harpaz 2016; Dibley, Viviers & van Zyl, 2014; Lee & Ok, 2015; Tomic & Tomic, 2010).

### **2.3.1 What is employee engagement?**

As per Kahn (1990), employee engagement refers to the harnessing of organisational members' selves in relation to the performance of their work roles. Kahn purported that employee engagement is different from other constructs such as organisational commitment, job involvement, job satisfaction, and intrinsic motivation. He is of the opinion that while concepts such as commitment, job involvement, and motivation contribute to the way employees perceive themselves and experience their work as well as the relationship between them, these constructs manifest differently from the day-to-day process of how employees experience and behave in their work environments. Kahn (1990) further states that in employee engagement, employees express themselves physically, cognitively and emotionally. The cognitive aspect refers to an employee's beliefs about the organisation, the organisational leaders, and the working environment. The emotional aspect refers to how employees feel about the organisation, their leaders, and their work environment, as well as the positive and negative emotions they experience towards to the organisation (Kahn, 1990). Finally, employee engagement is also concerned with the psychological and physical aspects of occupying and performing an organisational role (Kahn, 1990). Kahn (1990), however, states that the two most important dimensions of employee engagement are cognitive and emotional engagement. The author argues that an employee is more likely to be engaged in the work when he/she experiences psychological meaningfulness, psychological safety, and psychological availability.

Harter, Schmidt, and Hayes (2002) define employee engagement as an employee's satisfaction, connection and passion for the organisation, as well as their work. Hayday, Perryman, and Robinson (2004) refer to employee engagement as the attitude that individuals direct towards

an organisation's mission, vision, and values. Engaged employees therefore show a great awareness of the business environment in which they operate and motivate their colleagues and team members to improve their on-the-job performance in order to benefit the organisation (Kumar & Kumar Sia, 2012).

According to Schiemann (2014), employee engagement refers to commitment (Bakker & Schaufeli, 2007), employee satisfaction (Abrahams, 2012), and advocacy (Tsarenko & Mikhailitchenko, 2012). Satisfaction and commitment are state-related engagement constructs, whereas advocacy refers to extra-role behaviours. These usually includes going beyond one's call of duty in performing a job function, providing innovative ideas and actions, and marketing the employer brand to potential employees and customers.

Furthermore, various researchers and consulting firms offer different definitions of employee engagement; however, according to Bakker and Schaufeli (2014), employee engagement is fundamentally based on the following:

- Affective commitment – the emotional attachment that an individual has with an organisation.
- Continuance Commitment – the inherent desire to stay with an organisation.
- Extra-role behaviour – going beyond one's call of duty to contribute to the effective positive functioning of the organisation.

Employee engagement is also described as the degree to which individual employees display discretionary effort when performing their jobs (Frank, Finnegan & Taylor, 2004). This definition is closely linked to the extra-role behaviour as described by Bakker and Schaufeli (2014).

Shuck and Wollard (2010, p. 103) describe employee engagement as “an individual employee's cognitive, emotional and behavioural state directed toward desired organizational outcomes”. Shuck and Wollard's definition is partially derived from definitions of employee engagement as conceptualised by Kahn (1990), Macey and Schneider (2008), and Maslach et al. (2001).

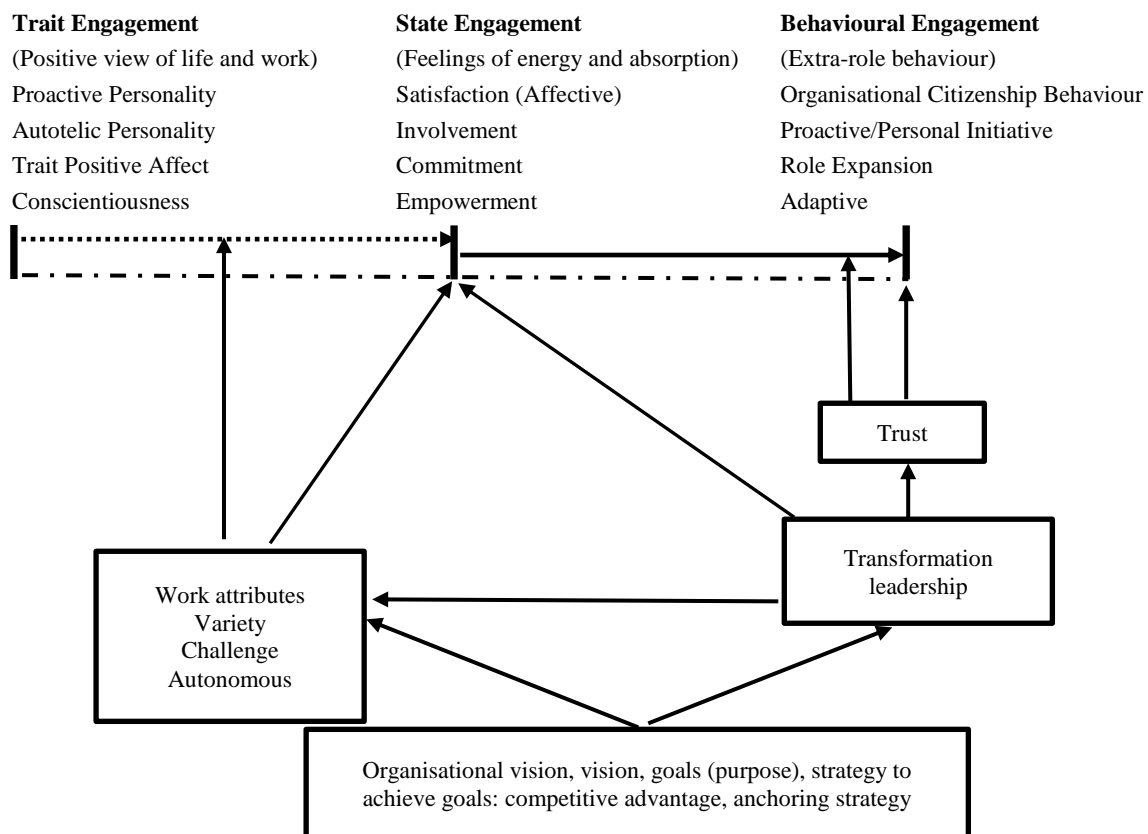


Based on Kahn's conceptual framework, Macey and Schneider (2008) propose a theoretical taxonomy and are of the opinion that employee engagement is a multidimensional construct that focuses on three different types of engagement, namely trait, state, and behavioural. Trait engagement focuses on an employee's positive views of life and work and includes aspects such as proactive personality, autotelic personality, trait positive affect, and conscientiousness. State engagement refers to feelings of energy and absorption and includes aspects such as employee/job satisfaction, involvement, and empowerment. Lastly, behavioural engagement refers to the discretionary efforts employees exert in their work roles and includes aspects such as organisational citizenship behaviour, proactive/personal initiative, role expansion, and employee adaptability.

For the purpose of this study, the definition and framework by Macey and Schneider (2008) has been adopted.

### **2.3.2 A model for employee engagement**

Various employee engagement theories and models exist in literature, such as the Personal Engagement model (Kahn, 1990), Job Demand-Resources model (Bakker & Demerouti, 2008), and Gallup's Q12 model, to name but a few; however, as stated previously, for the purpose of this study the trait, state and behavioural engagement model by Macey and Schneider (2008) will be the only model discussed as the measuring instrument used in this study is based on this model.



*Figure 2.2: Framework for understanding the elements of employee engagement (Adapted by Nienaber & Martins, 2014, from Macey & Schneider, 2008)*

Figure 2.2 presents the overall framework used by Nienaber and Martins (2014) to develop the Employee Engagement Instrument used in this study. The figure consists of various components which enhances our understanding of employee engagement. The model proposes that employee engagement consists of three different types of employee engagement, namely trait, state, and behavioural engagement (Macey & Schneider, 2008).

Trait engagement is regarded as the inclination or preference to experience the work from a specific vantage point (positive feelings such as energy and enthusiasm) which thus translates into psychological state engagement. State engagement, which includes feelings of absorption and commitment, is posited to be an antecedent of behavioural engagement, which is operationalised extra-role behaviour or discretionary effort (Macey & Schneider, 2008).

The model comprises of seven aspects which represent individual, team, and organisational level phenomena. The individual level aspects include trait, state, and behavioural engagement. The team level focuses on aspects such as work, leadership, and trust. The organisational level,

added by Nienaber and Martins (2014), consists of the vision, mission, goals, purpose, strategy, and competitive advantage to ensure the achievement of organisational goals. Nienaber and Martins (2014) argue that fully engaged employees know what is expected from them to achieve organisational objectives, understand and contribute to the competitive advantage of the organisation, and adopt a customer service approach (internally and externally). The authors therefore saw it fit to include the vision, mission, goals/objectives and competitive in the model as these elements guide organisations towards the achievement of their organisational strategy.

Furthermore, the model shows that the workplace consists of various conditions that directly and indirectly impact on state and behavioural engagement. This is illustrated by the direct effect that an employee's work role has on his/her state engagement, the moderating effect that it has on the relationship between trait and state engagement, and the indirect effect on the boundary conditions. From this figure it is also evident that leadership directly impacts on trust and indirectly impacts on behavioural engagement as a result of a work environment that is characterised by trust. In other words, the model shows that trait engagement work characteristics, leadership, trust, and organisational vision, mission, goals, strategy, and competitive advantage are antecedents of employee engagement. Furthermore, the model suggests that behavioural engagement is a consequence of employee engagement and therefore has a direct impact on organisational performance (Macey & Schneider, 2008).

In their conceptualisation of employee engagement Macey and Schneider (2008) distinguish employee engagement from other constructs such as employee motivation, employee satisfaction, job involvement, organisational commitment, and organisational citizenship behaviour, to name but a few. Hayday et al. (2004) state that

engagement contains many of the elements of both commitment and organisational citizenship behaviour (OCB), but is by no means a perfect match with either. In addition, neither commitment nor OCB reflect sufficiently two aspects of engagement – its two-way nature, and the extent to which engaged employees are expected to have an element of business awareness. (p. 8)

Erickson (2005) describes employee engagement as follows:

[E]ngagement is above and beyond simple satisfaction with the employment arrangement or basic loyalty to the employer – characteristics that most companies have measured for

many years. Engagement, in contrast, is about passion and commitment – the willingness to invest oneself and expend one’s discretionary effort to help the employer succeed. (p. 14)

Erickson (2005) further states that employees who are fully engaged in their work, are willing to tolerate low satisfaction and remain committed to the organisation; however, when satisfaction is low and they are disengaged from their work they will soon develop thoughts of leaving the organisation.

### **2.3.3 Different forms of employee engagement**

The different forms of employee engagement will be discussed below.

#### *2.3.3.1 Personal engagement*

Personal engagement looks at the psychological encounters individuals have at work that shape the way in which the employee emotionally, cognitively or physically connects or disconnects themselves from their work and the organisation. When individuals are personally engaged they are said to be mindfully watchful, emotionally attached, and physically involved in their work (Kahn, 1990).

#### *2.3.3.2 Cognitive Engagement*

Cognitive engagement is grounded in Kahn’s (1990) work on personal engagement. Cognitive engagement refers to the phenomenon that employees who find their work to be meaningful and safe will view their work as positive (Kahn 1990); however, employees who find their work meaningless or unsafe and lack the necessary resources to get their work done will often view their work as a negative, will become disengaged in their work, and will develop feelings of rejection, loneliness, unfriendliness, and will eventually burn out (Gozukara & Simsek, 2015). Cognitive engagement involves how employees think, feel, and understand their organisational culture, their jobs, and the company, and represents their organisational commitment (Shuck & Reio, 2011). Research also indicates that employees who cognitively express themselves in their work roles often display higher levels of engagement. Shuck,

Twyford, Reio, and Shuck (2014) further state that cognitively engaged employees share and understand the purpose of the organisation and are willing to go the extra mile in order to achieve organisational success.

#### 2.3.3.3 *Emotional Engagement*

Emotional engagement refers to an individual's willingness to invest personal resources such as knowledge, skills, abilities, and pride into one's work (Shuck & Reio, 2011). Emotional engagement stems from an individual emotive bond with the organisation and his/her work, and occurs when an employee has made a decision to engage cognitively with the organisation and his/her work. In other words, when employees emotionally share, understand, and identify with the purpose, objectives, and goals of the organisation, they are likely to plough their knowledge, skills, and abilities into the organisation (Shuck, Reio, & Rocco, 2011). Baron (2012) advances the notion that employees who are emotionally engaged, engage with their work on a deeper level and experience greater levels of well-being. Emotionally engaged employees are also more vocal within their teams and departments and are often willing to challenge and question the status quo, especially when they have invested their efforts into achieving departmental/divisional goals and long-term sustainability of the organisation. Rhoades, Eisenberg, and Armeli (2001) posit that an employee's emotional bond with an organisation is often viewed to be the determining factor of an employee's loyalty and organisational commitment. Failure to engage an employee on the emotional level could result in an employee withdrawing his/her efforts from the organisation and work.

#### 2.3.3.4 *Behavioural Engagement*

Shuck, Reio, and Rocco (2011) purport that behavioural engagement is the most observable form of engagement as it comprises the physical and overt manifestation of both emotional and cognitive engagement, and is often understood as extra-role behaviour and is closely associated with employee performance (Macey & Schneider, 2008). Extra-role behaviour refers to an employee's willingness to go beyond his or her scope of duty and is often an indicator of high levels of employee engagement (Lloyd, 2008). Behavioural engagement is often understood as the only form of engagement due to the fact that this is the one and only form of engagement that can be observed on the job; however, cognitive and emotional engagement pave the way for behavioural engagement as the absence of these two forms of engagement often result in

negative emotions toward one's work and the organisation, which in turn leads to intentions to quit (Alagaraja & Shuck, 2015).

#### 2.3.3.5 *Burnout / engagement*

Coetzer and Rothmann (2007) state that employees frequently experience stress, misapprehension, anxiety, insecurity, isolation, increased job demands/pressures, and decreased control over their jobs. All of these combined often leave employees feeling overwhelmed with distress, which is likely to lead to a breaking point, resulting in burnout.

According to Bakker, Demerouti, and Schaufeli (2005), there are two lines of thought when it comes to burnout and engagement:

- The first is that of Maslach and Leiter (1997), who conceptualised work engagement as the positive antithesis of burnout. Burnout is characterised by fatigue, tardiness, cynicism, inefficiency, and ineffectiveness, whereas engagement is characterised in terms of vigour, dedication, and absorption (Maslach & Leiter, 1997). Furthermore, burnout is considered to be an erosion of engagement, in which vigour changes into exhaustion, dedication changes into cynicism, and efficacy changes into ineffectiveness (Maslach, Schaufeli, & Leiter, 2001).
- The second line of thought is in agreement with the statement that work engagement is the direct opposite of burnout; however, Schaufeli and Bakker (2001) operationalise employee engagement on its own. This enables researchers to investigate cases where employees are low on both burnout and engagement. When exposed to stressful situations at work, some employees do not show signs of burnout, but instead see these as a challenge and they find pleasure in dealing with the stressful situation. Therefore, when an individual engages in meaningful work, it can lead to positive stress (eustress), thus resulting in engagement, even when faced with challenges (Nelson & Simmons, 2003).

#### 2.3.3.6 *Work engagement*

Schaufeli, Salanova, González-Roma, and Bakker (2002) refer to work engagement as a positive work-related state of mind characterised by vigour, dedication, and absorption. Vigour refers to the positive feelings, enthusiasm, energy, mental resilience, and perseverance that

individuals exert when faced with difficulties at work. Dedication is the enthusiasm, pride, challenge, persistence, and active involvement in one's work, and includes job enrichment. Absorption is when an individual is fully engrossed in his/her work, whereby he/she tend to forget about time (Bakker, Schaufeli, Leiter, & Taris, 2008).

Nienaber and Martins (2014), through their literature review, found that some researchers use employee engagement and work engagement interchangeably; however, there is a distinct difference. Schaufeli and Salanova (2011) noted that employee engagement is a more comprehensive concept than work engagement as it includes the employee's professional and/or occupational role, his/her relationship with the manager and supervisor, team relations, rewards, and compensation, whereas work engagement refers only to an employee's work (Nienaber and Martins, 2014).

As explained in 2.3.1 above, for the purpose of this study the researcher will use the definition by Macey and Schneider (2008), who refer to employee engagement as a multidimensional construct that focuses on three different types of engagement, namely trait, state, and behavioural. Trait engagement focuses on the positive views employees hold with regards to their life and work roles and work and include aspects such as proactive personality, autotelic personality, trait positive affect and conscientiousness. State engagement is defined as feelings of energy and absorption and includes aspects such as employee/job satisfaction, involvement and empowerment. Lastly, behaviour engagement refers to the discretionary efforts employees exert in their work roles and includes aspects such as organisational citizenship behaviour, proactive/personal initiative, role expansion and employee adaptability. In summary, employee engagement can be operationalised as a series of psychological states, being emotional, cognitive, and behavioural, which ultimately incorporates elements of passion, commitment, satisfaction, and intrinsic motivation (Shuck et al., 2011).

The employee engagement instrument by Nienaber and Martins (2014) is based on Macey and Schneider's model. The original employee engagement instrument utilised in this study addresses the following factors/drivers of employee engagement: team relations, organisational satisfaction, organisational commitment, customer service, strategy and implementation, and management support.

### 2.3.4 Drivers of employee engagement

Research by Erikson (2004) found that there are eight factors that facilitate, drive, and enhance employee engagement in organisations. Erikson states that when the factors listed below are positively experienced by an employee, it enhances the level of employee engagement, whereas if they are negatively experienced by employees it could lead to employee disengagement. These aspects are as follows:

- team work, participation, and belonging;
- two-way communication platforms;
- rewards and recognition;
- employee empowerment;
- opportunities for personal development and growth;
- trust and confidence in leadership;
- understanding of and commitment to the strategic vision, mission, goals, and values of the organisation; and
- quality of the products and services provided to customers. (Erikson, 2004)

Hayday et al. (2004) purported that employee engagement is enhanced by the following factors:

- positive and supportive relationship with immediate supervisor and manager;
- good relations with immediate colleagues and broader team;
- clear communication channels and platforms with the leadership of the organisation;
- clear work goals and objectives; and
- co-worker support and encouragement to take risks and strive for excellence.

A study by Saks (2006), identified the following as drivers of employee engagement: job characteristics, rewards and recognition, perceived organisational and supervisor support, and distributive and procedural justice. In terms of job characteristics, factors such as meaningful work, challenging work, work variety, accountability, and autonomy in how one performs his or her job were cited. Rewards and recognition looks at how the whether an employee feels that he or she is being adequately rewarded and recognised for his or her discretionary efforts. Perceived organisational and supervisory support focuses on employees' perception of whether they are receiving adequate support from the organisation, their supervisor or work colleagues to perform and execute their work successfully. Distributive and Procedural Justice refers to the fair allocation of resources in an organisation and the process followed during the allocation



of these resources. Saks (2006) found that all of the above factors were positively related to employee engagement and organisational engagement.

Soldati (2007) reviewed research conducted by Gallup, Towers Perrin, Blessingwhite, and the Corporate Leadership Council and found that there are eight drivers of employee engagement. The first driver is trust and integrity, which looks at how managers communicate with their employees and fulfil their promises. The second driver is nature of job, which focuses on whether the employee experiences his or her day-to-day job as mentally stimulating. The third driver identified is the relationship between employee performance and company performance, and whether the employee understands how his or her performance impacts on the overall performance of the organisation. The fourth driver is career growth opportunities, which focuses on whether the organisation makes provision for career progression in the organisational structure. The fifth driver is the employer brand and how proud an employee is to be associated with his or her employer. The sixth driver identified is team work and looks at how the relationship between colleagues and team members' impact on an individual employee's engagement levels. The seventh driver looks at what an organisation does to develop and advance the employee's career. The final driver identified is the relationship between the employee and his or her immediate manager/supervisor, and the impact the manager or supervisor has on the employee's engagement (Soldati, 2007).

## **2.4 FACTORS AND ANTECEDENTS THAT AFFECT EMPLOYEE ENGAGEMENT**

Richman (2006) posited that employee engagement is influenced by organisational practices such as organisational culture, organisational objectives, organisational and management support, job demands and resources, personality, and demographics. Organisations and their key stakeholders can either enhance or hamper employee engagement. In other words, if organisations are not actively trying to improve employee engagement amongst their employees they are running the risk of either decreasing employee engagement or even completely diminishing it.

Research conducted by Coetzer and Rothmann (2007), which focused on the manufacturing industry, indicates that job resources such as organisational support, growth opportunities, social support and advancement, and rewards and recognition for work well done are positively correlate with employee engagement, whereas job demands are negatively correlate with

employee engagement. Factors such as curiosity, self-esteem, perception of self, and coping style (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009a) have also been identified as important for the development of employee engagement. A study conducted by Avey, Wernsing, and Luthans (2008), with employees from different organisations and across various jobs, found that psychological capital (optimism, hope, resilience, and self-efficacy) was positively related to the employees' emotions, which in turn affected their attitude towards their work. Research by Rothmann and Welsh (2013) on the role of psychological conditions in employee engagement found that work-role fit and task characteristics were strongly related to employee engagement. Research by Patrick and Baht (2014), which focused on the relationship between work engagement, critical psychological states and personal resources, found that a work engagement positively correlates with personal resources (optimism, hope, efficacy) indicating that work engagement enhances personal resources and that can be attributed to the type of work employees do. This is supported by a Pan-European study, the results of which indicated that factors such as social support and autonomy were more important in predicting employee engagement than job demands. Employee engagement was mostly influenced by work-related resources (Patrick & Baht, 2014). It can therefore be deduced that jobs that include skill variety, task identity, task significance, autonomy and feedback, meaningful and challenging work positively influence employee engagement (Sakovska, 2012).

Saks (2006) found that work relationships with immediate managers/supervisors that are supportive, trusting, and non-autocratic promote employee engagement. Research conducted by Hassan and Ahmed (2011) on authentic leadership, trust, and employee engagement found that authentic leadership enhanced the level of trust employees have in their leadership and that interpersonal trust is a strong predictor of employee engagement. Research by Blessingwhite (2011) indicates that trust in the leadership of executives has more than double the impact on levels of employee engagement than trust in the immediate manager/supervisor does. The above findings therefore suggest that a supportive, trusting, and non-autocratic manager or supervisor promotes employees' engagement. Nantha (2013) purports that organisational cultures that limit job autonomy and employee empowerment lead to lower levels of job satisfaction and employee engagement.

A meta-analysis conducted by Harter, Schmidt, Killham, and Agrawal (2009) reported that engagement was related to nine performance measures used in organisations and that organisations whose employees display high levels of engagement have a significantly better

chance at achieving productivity and success as compared to organisations whose employees display low levels of employee engagement or who are actively disengaged. A meta-analysis conducted by Halbesleben (2010) indicates that engaged employees displayed higher commitment to their jobs/organisations, improved health, higher levels of job performance, and lower turnover intentions when they are doing meaningful work, have work–life balance and contribute the successful execution of the vision and mission of the organisation. Furthermore, a meta-analysis by Christian, Garza, and Slaughter (2011) showed that employee engagement positively correlated with task performance and contextual performance.

Wollard and Shuck (2011) provide a tabular summary of the individual and organisational level antecedents of employee engagement in Table 2.1.

Table 2.1

*Individual-level and organisational-level antecedents of employee engagement (Wollard & Shuck, 2011)*

Individual Antecedents of Employee Engagement	Organisational Antecedents of Employee Engagement
➤ Absorption*	➤ Authentic corporate culture*
➤ Available to engage	➤ Clear expectations*
➤ Coping style	➤ Corporate social responsibility*
➤ Curiosity	➤ Encouragement
➤ Dedication*	➤ Feedback
➤ Emotional fit	➤ Hygiene factors
➤ Employee motivation	➤ Job characteristics*
➤ Employee/work/ family status	➤ Job control
➤ Feelings of choice and control	➤ Job fit*
➤ Higher levels of corporate citizenship*	➤ Leadership
➤ Involvement in meaningful work*	➤ Level of task challenge*
➤ Link individual and organizational goals*	➤ Manager expectations*
➤ Optimism	➤ Manager self-efficacy*
➤ Perceived organisational support*	➤ Mission and vision
➤ Self-efficacy, Self-esteem	➤ Opportunities for learning
➤ Vigour*	➤ Perception of workplace safety*
➤ Willingness to direct personal energies	➤ Positive workplace climate*
➤ Work/ life balance*	➤ Rewards*
➤ Core self-evaluation*	➤ Supportive organisational culture*
➤ Value Congruence*	➤ Talent management
➤ Perceived Organizational Support*	➤ Use of strengths*

\* Indicates Empirically Tested Antecedents

## 2.5 EMPLOYEE ENGAGEMENT EMPIRICAL FINDINGS

Studies conducted by Salanova, Agut, and Peiró (2005) and Bakker and Demerouti (2008) found that engaged employees display proactive behaviours and that engagement correlates positively with customer satisfaction. Taplin and Winterton (2007) asserted that intention to leave an organisation is seen as a significant predictor of employee turnover. Also when employees are extremely engaged in their work they display enhanced levels of job satisfaction (Schaufeli & Bakker, 2004; Schaufeli & Salanova, 2007), organisational and job commitment (Beukes and Botha, 2013; Coetzee et al., 2014; Simons & Buitendach, 2013) and lower intentions to quit (Basikin, 2007; Halbesleben & Wheeler, 2008; Saks, 2006; Takawira et al., 2014), which could result in the retention of valued employees.

In other words, employees who display low levels of job embeddedness and employee engagement are inclined to leave an organisation.

Various research studies have shown that a positive relationship exists between employee engagement and business turnover as a result of increased sales, customer satisfaction, productivity, motivation, and retention of top talent (Bakker et al, 2008; Harter et al., 2002; Rich, LePine, & Crawford, 2010). Further to the above, Kumar and Kumar Sia (2012) reported that various researchers and organisational practitioners have found that employee engagement plays a significant role in enhancing employee attitudes, individual behaviour, individual performance, organisational productivity, organisational performance, employee attraction, employee retention, employee motivation, employee turnover, organisational financial performance, return on shareholder investment, organisational commitment, improved internal and external customer service, and customer loyalty (Beukes & Botha, 2013; Coetzee et al., 2014; Harter et al., 2002; Mendes & Stander, 2011; Richman, 2006; Schaufeli & Bakker, 2004; Salanova et al., 2005; Simons & Buitendach, 2013). Based on all of the above findings it stands to reason that South African organisations could potentially lose millions of Rands if the decline in employee engagement is not actively addressed.

Field and Buitendach (2011), who investigated the relationship between happiness, employee engagement, and organisational commitment amongst support staff in a South African tertiary institution, found that a significantly positive relationship exists between organisational commitment, employee engagement, and happiness. It can thus be deduced that employees who are engaged will be happier in their jobs and will show greater levels of organisational

commitment. Research by Shuck et al. (2011), which examined the antecedents and outcomes of employee engagement, found that affective commitment and psychological climate had a significant positive relationship with employee engagement. Furthermore, the results from this study also found that the outcomes of employee engagement include extra-role behaviour and decreased turnover intentions amongst employees.

From a humanistic psychology perspective, a study by Tomic and Tomic (2010) found that a positive relationship between existential fulfilment and employee engagement exist for self-actualisation. Results further indicated that self-actualisation explained a large percentage difference in vigour, dedication and absorption.

Various research studies have also been conducted with regard to the impact that demographic differences have on employee engagement; these literature findings are reported below.

### **2.5.1 Gender**

Research by Schaufeli and Bakker (2003) found that employee engagement is different amongst males and females, however small practical significance was reported. Mostert and Rothmann (2006) found that marginal differences exist with regard to how males and females experience vigour and dedication in their jobs. Research by Peter (2008) indicates that there are gender differences in relation to employee engagement. Statistically significant differences were also observed between the male and female participants with regard to the work engagement variables of total engagement, dedication and absorption (Bakker & Demerouti, 2009; Coetzee & de Villiers, 2010; Mauno, Kinnunen, & Ruokolainen, 2007).

### **2.5.2 Age**

With regard to the age variable and employee engagement, research by Schaufeli et al. (2006), Coetzee and de Villiers (2010), and Blessingwhite (2011) found that people from various age groups differ significantly with regard to employee engagement. Results particularly showed that people within the age group of 26–40, and older than 40 years old scored significantly higher than people within the age group of 25 years and younger. However, research findings by Bakken et al. (2000) and Salamonson, Andrew, and Everett (2009) suggest that no significant differences exist between employee engagement and the age variable.

### **2.5.3 Qualification**

With regard to the qualification variable, research conducted by Barkhuizen and Rothmann (2006) and Bell and Barkhuizen (2011) found contradictory results. Findings from Barkhuizen and Rothmann (2006) indicate that employees with higher educational levels are more engaged than those that do not hold undergraduate diplomas and degrees, or possess no qualification at all; however, results by Bell and Barkhuizen (2011) were not consistent with the above findings.

### **2.5.4 Language**

Bell and Barkhuizen (2011) found a statistically significant relationship between home language and employee engagement, whereby employees who spoke Afrikaans as a first language displayed significantly higher levels of employee engagement (vigour, dedication, and absorption) than employees with English as a home language. Further to this, a statistically significant relationship between employee engagement and cultural groups was also found; however, the authors argue that this could be attributed to language differences based on the origin of the questionnaire (Goliath-Yarde & Roodt, 2011).

### **2.5.5 Tenure and Type of Employment Contract**

A study conducted by Blessingwhite (2011) found that there is a strong relationship between employee engagement and tenure. A longitudinal study by De Lange, De Witte and Notelaers (2008) found that employees who in a specific organisation for long periods tend to show decreased levels of employee engagement. This suggests that organisations should continually revise their employee engagement strategies in order to address the needs of the new entrants as well as employees with longer service periods.

A study conducted by Coetzee and de Villiers (2010) confirmed a statistically significant difference between contractors and people who are permanently employed. In other words, employees who are permanently employed are more engaged than employees who work part time or on contract.

## 2.5.6 Race

Research by Igbaria (1992) found that Black employees experienced lower levels of career satisfaction than White employees. Lower career satisfaction was attributed to the fact that Black employees received less career support from their supervisors and managers than the White employees. A study by Dixon, Storen and van Horn (2002) support these findings by stating that Black and Hispanic employees believed that they experienced higher levels of unfairness and discrimination than White employees. A study conducted by Somers (2001) found that Black employees were more involved and committed to their work than White employees, which means that Black employees showed higher levels of job involvement. Jones and Harter (2005) found that at low levels of employee engagement, members of different racial groups reported a lower tendency to remain with the organisation than members of the same racial group. Research findings by Bell and Barkhuizen (2011) indicated that White employees displayed higher levels of employee engagement than their Coloured<sup>1</sup> and Black counterparts. Research by Bakken et al. (2000) and Salamonson et al. (2009) found no statistically significant differences in how employee engagement is experienced amongst different race groups. Finally, findings by Patel (2014) showed that Coloured and Black employees were less engaged than White employees when it came to leadership dimension as measured by the Gallup engagement scale.

For the purpose of this study, only the relationship between race and employee engagement was empirically tested. The above findings were reported to show that demographic differences definitely have an impact on employee engagement. It is therefore important for academics, researchers, consultancies, and organisations to understand these differences in order to develop effective employee engagement interventions specific to the demographic make-up of organisations.

## 2.6 CRITICISMS AND CONTROVERSIES AROUND EMPLOYEE ENGAGEMENT

According to Little and Little (2006), who were the first comprehensive critics of employee engagement, there are four reasons as to why employee engagement is a fragmented concept. The first reason is that there is some debate as to whether engagement is a behaviour or an

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<sup>1</sup> In South Africa this term is used to refer to individuals of mixed racial ancestry

attitude. The second reason is with regard to whether engagement is an individual level or organisational level phenomenon. The third reason is the fact that the relationships between employee engagement and other organisational psychology-related constructs are vague (this reason is no longer relevant as research has shown that employee engagement is strongly related to constructs such as organisational commitment, psychological capital, intrinsic motivation, job embeddedness, etc.). The fourth and final reason is fact that there are various definitions and measurements of employee engagement, which further contributes to obscuring the true meaning of the construct.

Smythe (2007) is of the opinion that employee engagement as concept is therefore still highly disjointed with little academic underpinning. According to Smythe (2007), there are ongoing debates as to what constitutes employee engagement. Research over the last twenty years has come up with various definitions of the term employee engagement, which has resulted in the identification of various different key drivers and implications for organisations (Soldati, 2007). This has been attributed to the emergence of employee engagement as a hot topic within corporate organisations and as a result many academics, organisations, and employees still have difficulty articulating the actual meaning of employee engagement (Soldati, 2007).

Lockwood (2007, as cited by Schaufeli and Salanova 2011) describes the concept of employee engagement as “slippery” and puts forward that there are various reasons for the elusiveness of the concept. Simpson (2009) and Macey and Schneider (2008) concur, with similar arguments stating that even though employee engagement has been identified as a key driver to organisational success, the definitions and measurements of employee engagement remain poorly understood. As a matter of fact, some researchers cannot agree on a common name for the construct of engagement. Some researchers are of the opinion that it should be termed *employee engagement* (Macey & Schneider, 2008), whereas other researchers suggest that it should be termed *work engagement* (Schaufeli & Salanova, 2011), and others still favour *job engagement* (Rich et al., 2010).

Furthermore, there are inconsistencies and confusion with regard to how employee engagement is developed. Some researchers are of the opinion that employee engagement is a personal decision and not an organisational practice, whereas others believe that it is an organisational phenomenon (Macey & Schneider, 2008; Saks, 2006). To the contrary, Maslach et al. (2001) define engagement as a general concept in which it could be assumed that employee



engagement can be an individual-level or organisational-level phenomenon (Shuck & Wollard, 2010). Moreover, Saks and Gruman (2014) state that in addition to the various definitions and measurement of employee engagement, there is in general no accepted theory of employee engagement. An additional inconsistency is with regard to the different types of employee engagement. Authors such as Macey and Schneider (2008) and Saks (2006) describe employee engagement in terms of cognitive engagement, emotional engagement, and behavioural engagement, each with different definitions, antecedents and outcomes.

Macey and Schneider (2008) note that although there are various different definitions of the construct among academics and practitioners, they all agree that employee engagement is desirable, contributes to the organisational purpose and consists of both behavioural and psychological aspects as it involves energy, enthusiasm, and extra-role behaviour. However, these authors also argue that further development of the construct is required. They argue that conceptualisation and operationalisation of the concept should be done within a clear conceptual framework that makes provision for the psychological state as well as the observable behaviours and attitudes (Macey & Schneider, 2008).

Overall, employee engagement is viewed by academics as a complex, multifaceted and broad concept that includes well-researched constructs such as organisational commitment, organisational satisfaction, employee loyalty, employee motivation, and employee motivation (Sundaray, 2011). Based on the above discussion it becomes evident as to why there are various criticisms and controversies with regard to employee engagement. Despite these controversies and criticisms, research has consistently shown that employee engagement is critically important in the establishment of a competitive advantage and the survival of organisations.

## **2.7 CHAPTER SUMMARY**

Chapter 2 provided a literature review of the employee engagement. This included the conceptualisation of the construct employee engagement, the individual and organisational level antecedents of employee engagement, the impact of race and other demographic variables on employee engagement and the criticisms of employee engagement.

Chapter 3 presents a research article based on the empirical results of the study. The article is presented in the format prescribed by the *South African Journal of Industrial and Organisational Psychology*.

## CHAPTER 3: RESEARCH ARTICLE

### ABSTRACT

**Orientation:** The testing of Measurement Invariance is important in cross-cultural research to establish whether the psychometric properties of an instrument remains valid and reliable across different sample groups as it has been reported that these assumptions are rarely tested statistically.

**Research Purpose:** The primary research objective of this research study was to determine the factorial invariance of the employee engagement questionnaire across the various race groups by means of structural equation modelling. Furthermore, this study investigated the impact of race on the construct of Employee Engagement Instrument (EEI).

**Motivation for Study:** Due to the racial composition of South Africa and the different backgrounds from which employees originate, there are numerous logical reasons to suspect that an individual's race might affect the level of and effect of engagement on individual and organisational outcomes. It is therefore important to establish measurement invariance to ensure that an instrument/questionnaire/assessment measures the same construct exactly the same across different sample groups.

**Research Design, Approach and Method:** Cross-sectional and descriptive research designs were followed in this study in the form of non probability, convenience sampling attract to a sample of (n=1175) in financial institutions. The EEI was electronically administered to 285 000 people who form part of a research database. This database consists of business people from various demographic backgrounds.

**Main Findings:** Results indicated that statistically significant difference between the Black and White race groups with regard to immediate manager; however, this difference was not practically significant. The results also confirmed the reliability and validity of the instrument as determined by the exploratory and confirmatory factor analysis. Lastly, the results indicated that invariance can be assumed across race groups.

**Practical/Managerial Implications:** It is important for organisations to take cognisance of how the particular socio-demographic variables influence employee engagement and the subsequent organisational commitment, job performance, and motivation. By understanding how different employees are engaged it enables organisations to customise their engagement programmes to meet the needs of the various types of employees within the organisation instead of applying a “one size fits all” approach to engagement programmes.

**Contributions/Value-Add:** These findings add to the current body of literature that exists on employee engagement and race in the South African work context and provides valuable insights on how to promote and enhance employee engagement, specifically in financial institutions.

**Keywords:** Employee Engagement, Confirmatory Factor Analysis, Exploratory Factor Analysis, Multi-Group Invariance, Personal Engagement, Work Engagement, Financial Institutions

### 3.1 INTRODUCTION

The world of work has changed dramatically over the last twenty years due to globalisation, technological advances, changes in the social, cultural and economic environments and new ways of doing business that require businesses to keep ahead of their competitors by redefining and re-aligning their business strategies to overcome the challenges of the future. Masigibiri and Nienaber (2011) posit that these constant changes and turbulences have a direct impact on the organisational culture, retention, motivation, satisfaction, and engagement of employees, which in turn influences organisational effectiveness and performance.

This has also brought about the “war for talent”, which has placed the attraction and retention of talent at the forefront of business strategies to ensure the effective and positive functioning of organisations (Ulbrich, 2015). Organisations are therefore constantly looking for new and innovative ways to manage their current workforce by retaining talented and skilled employees to provide them with a competitive advantage and to allow them to respond to and overcome the changing market needs successfully. However, retaining the right talent in South Africa as well as internationally has proven to be a challenging task due to skills shortages, increased national and international mobility, and the retirement of the baby boomers. Furthermore, employee turnover and intention to quit also places tremendous strain on organisations. According to Mendes and Stander (2011), high employee turnover costs the South African economy vast amounts of money annually and leads to decreased productivity and quality problems, which lead to poor customer service.

Employee engagement has been identified as one of the most effective tools organisations can utilise in order to reduce turnover intentions, improve productivity, increase profitability, and most importantly lead to achieving a competitive advantage (Sardar, Rehman, Yousaf, & Aijaz, 2011). Employee engagement has also been found to be positively related to employee satisfaction, individual performance, organisational effectiveness, organisational commitment, employee motivation and productivity, career adaptability, employee retention, intention to quit, customer service, customer loyalty, psychological capital, and organisational citizenship behaviour (Bedarkar & Pandita, 2014; Beukes & Botha, 2013; Coetzee, Schreuder, & Tladinyane, 2014, Hayday, Perryman, & Robison 2004; Macey, Schneider, Barbera, & Young, 2009; Simons & Buitendach, 2013; Takawira, Coetzee, & Schreuder, 2014).

Against this backdrop, it is important for organisations to attract, retain, motivate and engage the right employees who demonstrate the right behaviours, especially in the current economic climate. A vast body of literature evidence has been published in support of the notion that employee engagement is a critical ingredient in the short-term survival and long-term business performance of organisations.

## **3.2 LITERATURE REVIEW**

This section of the study will provide a literature review of employee engagement and will broadly cover the various definitions of employee engagement, the trait, state and behavioural engagement model, and previous empirical findings with regard to employee engagement.

### **3.2.1 Employee engagement defined**

Employee engagement forms part of the positive psychology movement, which focuses on enhancing the optimum functioning, well-being, passion and health of employees in the business environment (Schaufeli & Bakker, 2004).

Olivier and Rothmann (2007) state that research on employee engagement increased dramatically over the last two decades. Sardar et al. (2011) suggest that the field of employee engagement is flourishing as more and more organisations are investing and pouring resources into enhancing engagement levels in the workplace. Many organisations seem to believe that employee engagement is key to obtaining a competitive advantage by alleviating organisational problems such as employee turnover and increasing individual performance, organisational performance, and productivity in the midst of economic decline (Macey & Schneider, 2008).

Various definitions of employee engagement exist in literature. Engagement has been defined in many different ways in literature. Engagement was first conceptualised by Kahn (1990), who described employee engagement as the harnessing of individual employees' selves to their work roles, whereby engaged employees express themselves physically, emotionally and cognitively during the execution of their work. Richman (2006) refers to employee engagement as the emotional and intellectual commitment that employees display towards their work and the organisation.

Shuck and Wollard (2010, p. 103) describe employee engagement as “an individual employee’s cognitive, emotional and behavioural state directed toward desired organizational outcomes”. Shuck and Wollard’s definition is partially derived from definitions of employee engagement as conceptualised by Kahn (1990), Macey and Schneider (2008), and Maslach, Schaufeli and Leiter (2001).

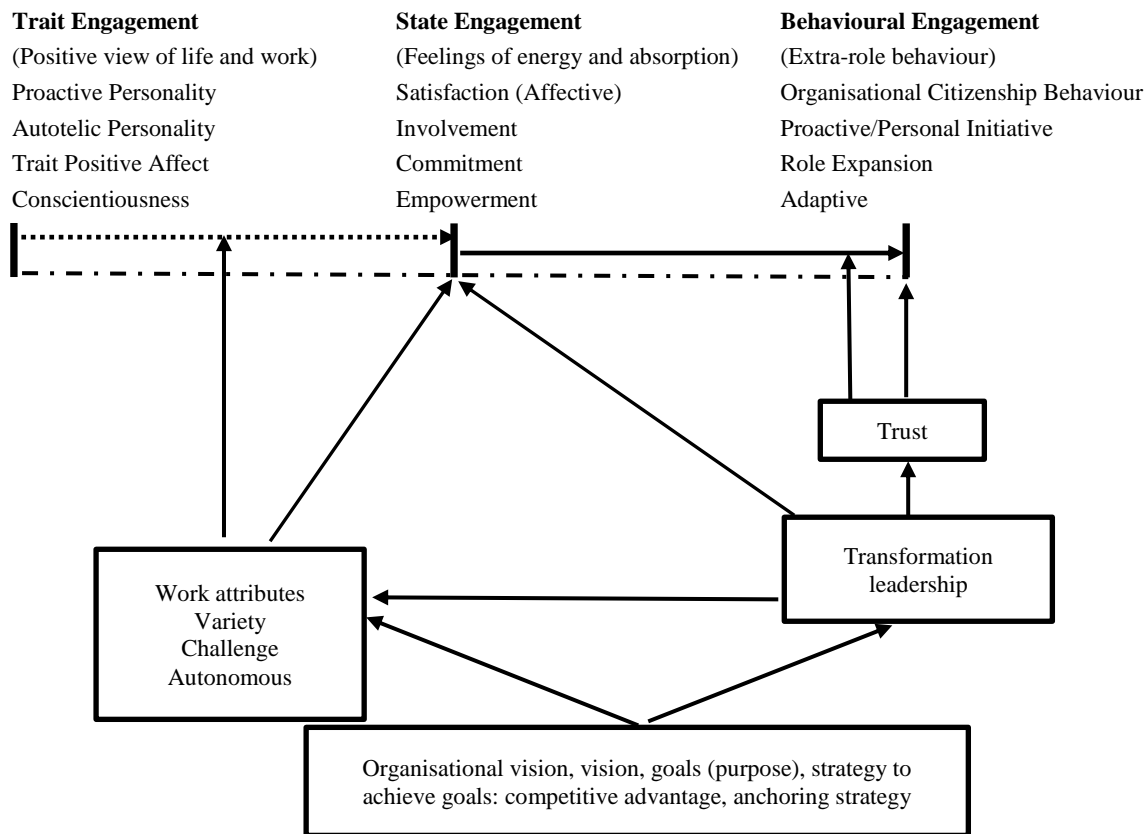
Bakker and Schaufeli (2014) purport that employee engagement is fundamentally based on the following:

- Affective commitment – the emotional attachment that an individual has with an organisation.
- Continuance Commitment – the inherent desire to stay with an organisation.
- Extra-role behaviour – going beyond one’s call of duty to contribute to the effective positive functioning of the organisation.

In summary, employee engagement can be operationalised as a series of psychological states, being emotional, cognitive, and behavioural, which ultimately incorporates elements of passion, commitment, satisfaction and intrinsic motivation (Shuck & Reio, 2013).

### **3.2.2 A model for engagement model**

Various employee engagement theories and models exist in literature, such as the Personal Engagement model (Kahn, 1990), Job Demand-Resources model (Bakker & Demerouti, 2008), and Gallup’s Q12 model, to name but a few; however, as stated previously, for the purpose of this study the trait, state and behavioural engagement model by Macey and Schneider (2008) will be the only model discussed as the measuring instrument used in this study is based on this model.



*Figure 3.1:* Framework for understanding the elements of employee engagement (Adapted by Nienaber & Martins, 2014, from Macey & Schneider, 2008)

Figure 3.1 presents the overall framework used by Nienaber and Martins (2014) to develop the Employee Engagement Instrument used in this study. The figure consists of various components which enhances our understanding of employee engagement. The model proposes that employee engagement consists of three different types of employee engagement, namely trait, state, and behavioural engagement (Macey & Schneider, 2008).

Trait engagement is regarded as the inclination or preference to experience the work from a specific vantage point (positive feelings such as energy and enthusiasm) which thus translates into psychological state engagement. State engagement, which includes feelings of absorption and commitment, is posited to be an antecedent of behavioural engagement, which is operationalised extra-role behaviour or discretionary effort (Macey & Schneider, 2008).

The model comprises of seven aspects which represent individual, team, and organisational level phenomena. The individual level aspects include trait, state, and behavioural engagement. The team level focuses on aspects such as work, leadership, and trust. The organisational level,



added by Nienaber and Martins (2014), consists of the vision, mission, goals, purpose, strategy, and competitive advantage to ensure the achievement of organisational goals. Nienaber and Martins (2014) argue that fully engaged employees know what is expected from them to achieve organisational objectives, understand and contribute to the competitive advantage of the organisation, and adopt a customer service approach (internally and externally). The authors therefore saw it fit to include the vision, mission, goals/objectives and competitive in the model as these elements guide organisations towards the achievement of their organisational strategy.

Furthermore, the model shows that the workplace consists of various conditions that directly and indirectly impact on state and behavioural engagement. This is illustrated by the direct effect that an employee's work role has on his/her state engagement, the moderating effect that it has on the relationship between trait and state engagement, and the indirect effect on the boundary conditions. From this figure it is also evident that leadership directly impacts on trust and indirectly impacts on behavioural engagement as a result of a work environment that is characterised by trust. In other words, the model shows that trait engagement work characteristics, leadership, trust, and organisational vision, mission, goals, strategy, and competitive advantage are antecedents of employee engagement. Furthermore, the model suggests that behavioural engagement is a consequence of employee engagement and therefore has a direct impact on organisational performance (Macey & Schneider, 2008).

In their conceptualisation of employee engagement Macey and Schneider (2008) distinguish employee engagement from other constructs such as employee motivation, employee satisfaction, job involvement, organisational commitment, and organisational citizenship behaviour, to name but a few. Hayday et al. (2004) state that

engagement contains many of the elements of both commitment and organisational citizenship behaviour (OCB), but is by no means a perfect match with either. In addition, neither commitment nor OCB reflect sufficiently two aspects of engagement – its two-way nature, and the extent to which engaged employees are expected to have an element of business awareness. (p. 8)

Erickson (2005) describes employee engagement as follows:

[E]ngagement is above and beyond simple satisfaction with the employment arrangement or basic loyalty to the employer – characteristics that most companies have measured for

many years. Engagement, in contrast, is about passion and commitment – the willingness to invest oneself and expend one’s discretionary effort to help the employer succeed. (p. 14)

Erikson (2005) further states that when employees are fully engaged in their work they are willing to tolerate low satisfaction and remain committed to the organisation; however, when satisfaction is low and they are disengaged from their work they will soon develop thoughts of leaving the organisation. In support the above, Shuck and Wollard (2010) posit that employee satisfaction is different from employee engagement. These authors argue that employees can be satisfied with their job as it provides them with a salary and job security; however, it does not necessarily mean that these employees are emotionally, cognitively and physically engaged, or invested in the objectives and success of the organisation (Shuck & Wollard, 2010).

### **3.2.3 Employee Engagement Empirical Findings**

Endres and Mancheno-Smoak (2008), Thayer (2008), and Saks and Gruman (2011) posit that over the last two decades, research on employee engagement has increased exponentially, and has even been branded as “a human resource craze”. Rothmann and Rothmann (2010) posit that the need for businesses to minimise their inputs and maximise their outputs has contributed significantly to the rise in employee engagement research and practices. Whilst research studies conducted by other academics and researchers have reported varying and contradicting results, what most of these studies have had in common is that they have found that employee engagement is a critical element to sustaining a competitive advantage. Some researchers, academics, and organisational practitioners have described employee engagement as the “silver bullet”, whereas other researchers and academics has referred to employee engagement as the magical formula to sustaining a competitive advantage (Corace, 2007; Hayday et al., 2004).

Despite the increase in research with regard to the importance of employee engagement in an organisational context, various research studies have shown that the levels of employee engagement have been on a decrease over the last decade (Gallup 2013; Jorgensen 2006; Robertson & Cooper 2010; Saks 2006; Saks & Gruman, 2014). A study conducted by Blessingwhite (2011) in the United States, Canada, India, Europe, Southeast Asia, Australasia, and China found that out of the 11 000 human resources practitioners and line managers, 31%

were engaged and 17% of the sample were disengaged. A more recent survey conducted by Gallup (2013) in 142 countries found that only 13% of the sample were engaged by their organisations and work roles. The results also showed that actively disengaged workers outnumbered the number of engaged employees at a ratio of two to one. Specifically, results obtained from Australia and New Zealand found that 60% of employees are not engaged in their work and that 16% of employees are actively disengaged from their work roles. In Sub-Saharan Africa results indicate that during the course of 2011 and 2012 only 9% of South African employees were engaged and 91% of employees were not engaged. South Africa also reported one of the highest percentages of disengaged employees in the world (Gallup, 2013). The Gallup organisation estimates that engaged employees account for 90% of an organisation's effectiveness and efficiency and reported that 19% of employees who are disengaged miss on average 118.3 million more work days than employees who are highly engaged.

The Gallup Group found that employee engagement is statistically significantly related to positive organisational behaviours and outcomes such as productivity, profitability, employee retention, employee motivation, job satisfaction, customer satisfaction, and psychological capital (Endres & Mancheno-Smoak, 2008; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009b).

A study by Robertson-Smith and Harwick (2009) indicated that over a four-year period, organisations with high levels of employee engagement consistently reported a shareholder return of 20% and above, when compared to organisations with low levels of employee engagement. Bakker (2011) and Rana (2015) maintain that despite the increased attention and research efforts employee engagement receives, survey research consistently found a decrease in the level of employee engagement in many different continents (Gallup, 2013; Robertson & Cooper, 2010; Saks, 2006; Saks & Gruman, 2014).

Rothmann and Rothmann (2010) assert that it is important to understand the antecedents (e.g., work-role fit, job enrichment, the availability of personal resources, and co-worker support) of employee engagement. Research conducted by these authors found that the antecedents of employee engagement explained only 20% of the variance in employee engagement, compared to 36% of the variance explained by the work activities model (Bakker, Schaufeli, Leiter & Taris, 2008).

Baard, Deci, and Ryan (2004) purport that employees who experience their immediate management to be supportive of performing their job function autonomously displayed high levels of improved well-being and greater satisfaction with their jobs and the organisation. Saks (2006) found that work relationships with immediate managers/supervisors that are supportive, trusting and non-autocratic promote employee engagement. Research by Albrecht (2010), Bakker and Demerouti (2008), and Coetzer and Rothmann (2007) have consistently found that factors such as social support from peers, support from immediate management, open communication channels, performance feedback, autonomy, job enrichment, and training and development opportunities positively correlate to employee engagement, whereas job demands displayed a negative relationship with employee engagement. Research conducted by Hassan and Ahmed (2011) on authentic leadership, trust and employee engagement found that authentic leadership enhanced the level of trust employees have in their leadership, and that interpersonal trust is a strong predictor of employee engagement. Research by Blessingwhite (2011) indicates that trust in executive leadership has more than double the impact on employee engagement than trust in their immediate manager and supervisor does. The above findings therefore suggest that a supportive, trusting, and non-autocratic manager or supervisor promotes employees' engagement.

Xanthopoulou, Bakker, Heuven, Demerouti, and Schaufeli (2007) found a positive relationship between employee engagement and self-efficacy, optimism, hope, resilience, and organisational self-esteem. A study conducted by Avey, Wernsing and Luthans (2008) with employees from different organisations and across various jobs found that psychological capital was positively related to the employees' emotions, which in turn affected their attitude towards their work. These findings indicate that employees who are engaged make use of their personal resources to achieve success in their work environments (Bakker & Demerouti, 2008). Research by Patrick and Baht (2014) on the relationship between employee engagement, critical psychological states, and personal resources, found that an employee engagement positively correlates with personal resources (optimism, hope, efficacy), indicating that work engagement enhances personal resources and that can be attributed to the type of work employees do.

A meta-analysis conducted by Harter, Schmidt, Killham, and Agrawal (2009) reported that engagement was related to nine performance measures used in organisations and that organisations whose employees display high levels of engagement have a significantly better

chance at achieving productivity and success as compared to organisations whose employees display low levels of employee engagement or who are actively disengaged. A meta-analysis conducted by Halbesleben (2010) indicates that engaged employees displayed higher commitment to their jobs as well as the organisations, improved health, higher levels of job performance, and lower turnover intentions. Research by Shuck, Reio Jr, and Rocco (2011), which examined the antecedents and outcomes of employee engagement, found that affective commitment and psychological climate had a significant positive relationship with employee engagement. Furthermore, the results from this study also found that the outcomes of employee engagement include extra-role behaviour and a decrease in turnover intentions amongst employees. Furthermore, a meta-analysis by Christian, Garza and Slaughter (2011) showed that employee engagement had a positive relationship with task performance and contextual performance.

From a demographic perspective, research by Schaufeli and Bakker (2003) found that employee engagement is different among male and female employees, however small practical significance was reported. Mostert and Rothmann (2006) reported that marginal differences exist with regard to how male and female employees experience vigour and dedication in their jobs. Research findings suggest that female workers are more engaged in their work than their male colleagues (Bakker & Demerouti, 2008; Coetzee & de Villiers, 2010; Mauno, Kinnunen, & Ruokolainen, 2007).

In terms of age perspective, research shows that older employees displayed higher levels of employee engagement than younger employees (Schaufeli, Bakker, & Salanova, 2006; Coetzee & de Villiers, 2010; Blessingwhite, 2011). With regard to the qualification variable, research conducted by Barkhuizen and Rothmann (2006) and Bell and Barkhuizen (2011) found contradictory results. Findings from Barkhuizen and Rothmann (2006) indicated that employees with higher educational levels are more engaged than those that do not hold undergraduate diplomas and degrees, or have no qualification at all; however, results by Bell and Barkhuizen (2011) were not consistent with the above findings.

In terms of language, Bell and Barkhuizen (2011) found that Afrikaans-speaking employees were significantly more engaged in their work than their English counterparts. Research by Igarria (1992) found that Black employees showed lower levels of career satisfaction than White employees. Lower career satisfaction was attributed to the perception of Black

employees receiving career development support from their supervisors and managers than the White employees. A study conducted by Somers (2001) found that Black employees were more involved and committed to their work than White employees, which means that Black employees showed higher levels of job involvement. Research by Jones and Harter (2005) indicated that employees from different racial groups who displayed low levels of employee engagement often reported increased intentions to quit than employees from the same racial group. Findings by Bell and Barkhuizen (2011) indicated that White employees displayed higher levels of employee engagement than their Coloured<sup>2</sup> and Black counterparts. Lastly, studies conducted by Jones, Ni, and Wilson (2009), Salamonson, Andre, and Everett (2009) and Bakken et al. (2000) found no statistically significant differences with regard to how employee engagement is experienced by different race/ethnicity groups. For this reason, the researcher finds it necessary to determine the factorial invariance of the employee engagement instrument across different race groups and to investigate the relationship between race and employee engagement with regard to current sample.

To achieve the research aims of this study, emphasis will be placed on determining the relationship between race and employee engagement only.

### **3.3 RESEARCH PURPOSE AND OBJECTIVES**

According to Imandin, Bisschoff, and Botha (2014), research on employee engagement has primarily focused on how organisations can enhance employee engagement, what they should do to drive and facilitate employee engagement, the antecedents of employee engagement, and the measurement of employee engagement in general. Very few studies have been conducted on the accurate measurement of employee engagement that organisations can use to measure the levels of employee engagement within their organisations. Imandin et al. (2014) further state that the measurement of employee engagement within organisations and for research purposes requires a newly-developed, validated, and reliable measure that is based on literature from reputable sources. Additionally, there appears to be a paucity of research on testing for measurement invariance of psychometric tools for different race groups. Byrne and Stewart (2006) state that measurement invariance is of critical importance when conducting multi-group comparisons. It is critical for a measuring instrument to measure the same construct

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<sup>1</sup> In South Africa this term is used to refer to individuals of mixed racial ancestry

exactly the same for different demographic groups. If a measuring instrument does not display measurement equivalence across different sample groups, the interpretation would be questionable. This is due to the fact that such interpretations would lack definitiveness with regard to knowing whether the differences are as a result of true attitudinal differences, or psychometric differences, as it relates to the item responses. Measurement invariance is therefore of critical importance, especially with regard to cross-cultural research, in order to establish whether an instrument performs exactly the same way across different sample groups as it has been found that these assumptions are rarely tested statistically.

There is increasing pressure on South African organisations to improve their financial performance and sustain their competitiveness requires engaged employees, especially in the financial industry (João & Coetzee, 2011). Research by Aon Hewitt (2011), E-Trinity (2014), and Deloitte (2014) suggest that employee engagement is on the decline in financial institutions. The financial industry is known for its quest to attract, retain, motivate, and develop talent from diverse groups of people due to the national skills shortage in this industry (DHET, 2014; João & Coetzee, 2011; South African Institute of Chartered Accountants, 2008), thus emphasising the importance of employee engagement in this industry.

### **3.3.1 Primary research objective of this study**

Based on the analysis of existing literature, there seems to be a scarcity of research, both locally and internationally, that focuses on establishing multi-group invariance of psychometric tools, especially with regard to race. Furthermore, there is currently also a lack of research that addresses the impact that race has on employee engagement.

In light of the above, the objectives of this research study were to (1) determine the factorial invariance of employee engagement across the various race groups by means of structural equation modelling in financial institutions, (2) determine if any statistically significant differences exist between the results of different race groups and the various dimensions of employee engagement in financial institutions and to suggest practical recommendations for Industrial and Organisational Psychology practices with regard to the management and development of employee engagement.

### **3.3.2 Hypotheses**

Based on the literature, problem statement and objectives of the research, the following hypotheses were formulated:

- H1: Race groups in financial institutions display invariance with regard to the EEI.
- H2: Employees from different race groups in financial institutions differ significantly with regard to employee engagement.

## **3.4 RESEARCH DESIGN**

Research design refers to the framework of action which will be used to answer the research questions and achieve the research objectives (Bless, Higson-Smith, & Kagee, 2006). In other words, research design explains how the focused research will be executed. The research design for this study will be outlined in the following sections with specific focus on the research approach and method.

### **3.4.1 Research approach**

This research falls within the paradigm of positive psychology (Seligman & Csikszentmihalyi, 2000), focusing on positive organisational outcomes in the South African work environment. A scientific quantitative, cross-sectional survey and descriptive research design was used to achieve the research objectives. A cross-sectional research design focuses on drawing a sample from the target population at a specific point in time (Babbie, 2013) and a descriptive research designs focus on establishing whether there are statistically significant relationships or differences between different dependent and independent variables (Struwig & Stead, 2001).

### **3.4.2 Research method**

#### *3.4.2.1 Research participants*

The database of a research company, made up of approximately 285 000 businesspeople from various cultural and educational backgrounds, industries, sizes of business, job levels and job roles reflecting the profile of the South African working population, was utilised in this study.



The database is known as a permission database, which means that every person whose information is stored in the database gave their permission and indicated that they are willing to participate in research initiatives should they be approached to complete online surveys. Hence, non-probability convenience sampling was used to attract a sample of  $n = 1175$  respondents from financial institutions. Convenience sampling can be defined as a sample in which only convenient or accessible members of the population are selected (Burt et al., 2009).

Table 3.1

*Demographic representation of the sample*

<b>Variables</b>	<b>Sample</b>	
<b>Generation</b>	<b>Frequency (n=1175)</b>	<b>Percentage</b>
Born between 1978 and 2000	340	28.9
Born between 1965 and 1977	530	45.1
Born between 1946 and 1964	305	26.0
<b>Race</b>		
African	197	16.8
Coloured	100	8.5
Indian	116	9.9
White	732	62.2
Other	8	0.7
Prefer not to say	22	1.9
<b>Job Level</b>		
Top management (Exco, COO, Director)	204	17.4
Senior management	320	27.2
Manager	314	26.7
Supervisor	87	7.4
Employee	250	21.3
<b>Education Level</b>		
Standard 6 (Grade 8) and below	3	0.3
Standard 7–8 (Grades 9–10)	4	0.3
Standard 9–10 (Grades 11–12)	144	12.3
Certificate	147	12.5
Diploma	223	19.0
First degree	200	17.0
Postgraduate qualification	453	38.6
<b>Gender</b>		
Male	604	51.4
Female	571	48.6

A total of 1175 completed questionnaires were received. Table 3.1 reflects the demographical representation of the sample. Based on the table above it becomes apparent that the majority of the sample in terms of race was made up of White employees (62.2%); whilst the majority in terms of age was the group born between 1965 and 1977 (45.1%). Furthermore, the majority

of the sample consisted of senior management (27.2%), managers (26.7%) and employees (21.3%). Combined, these three job level categories formed 75.2% of the sample. Additionally, the vast majority of the sample were in possession of postgraduate qualifications (38.6%) and diplomas (19.0%). Finally, male participants made up 51.4% whilst female participants made up 48.6% of the sample.

#### 3.4.2.2 *Measuring instrument*

The five-point Likert employee engagement instrument developed by Nienaber and Martins (2014) was used to measure employee engagement at both an individual level (individual growth and development) as well as at the organisational and team level (performance quality) (Bakker and Schaufeli, 2014).

The first section of the questionnaire, “demographic information” encompasses six variables which include tenure, generation group, race, gender, job grade, and highest qualification.

The instrument focuses on engagement at an individual level, team level and organisational level and focuses on the individual employee’s work role and the employee’s role as an organisational member. The survey is divided into six dimensions. The first dimension, “*Team*”, consists of twelve items and focuses on how team work enhances employee engagement. An example of a statement under this dimension is “*In my team we adapt to changes*”. The second dimension, “*Organisational Satisfaction*”, which comprises of nine items measuring organisational and job satisfaction amongst employees. An example of a statement under this statement is “*My job is meaningful to me*”. The third dimension, “*Customer Service*”, has six items and measures employees’ perceptions of their customer service and the organisation’s customer service strategy. An example of a statement under this dimension is “*I feel our service to our customers usually exceeds their expectations*”. “*Organisational Commitment*” comprises six items and measures the employee’s commitment to the organisation, their jobs and the organisational strategy. An example of a statement under this dimension is “*I am positive about my future in the organisation*”. The fifth dimension, “*Immediate Manager*”, is made up of six items and measures how an employee’s immediate manager or supervisor engages the employee through their actions and support. An example of a statement under this dimension is “*I trust my immediate manager*”. The final dimension, “*Strategy and Implementation*”, comprises eleven items and measures the employee’s

perception of the organisational strategy and the employee's involvement in strategy development and implementation. An example of a statement under this dimension is "*Our top management communicates the vision and mission to us*" (Nienaber & Martins, 2014).

A twofold study by Nienaber and Martins (2015) used exploratory factor and confirmatory analysis to determine the factorial structure of the instrument and subscales. The first study utilised exploratory factor analysis to reduce the items in the initial question. Subsequent to this, Nienaber and Martins (2015) conducted a second study to confirm the construct validity of the measuring instrument by means of confirmatory factor analysis. Results for the six-factor structure were as follows: RMSEA = 0.020, GFI = 0.828, IFI = 0.923, TLI = 0.917, CFI = 0.923, and PFI = 0.817 (Martins, 2015). Different factor structures were tested; however, the six-factor model showed a better model fit whereby all of the indices were close to the minimum cut-off of 0.900. The parsimonious fit index was the only index which produced slightly lower indices for the six-factor model; however, it was still above 0.900. The overall reliability of the Cronbach's alpha coefficient of the Employee Engagement scale measured at 0.918 and the internal consistency of the subscales ranged from 0.895 and 0.951 (Nienaber & Martins, 2015). According to Malhotra (2010), 0.70 is the recommended minimum cut-off.

#### 3.4.2.3 *Research procedure*

Data collection was done by means of an electronic survey that was sent to respondents by means of mass e-mail to invite them to participate in the study. Each respondent was sent a personalised e-mail containing a link to an online survey, informing them of the purpose of the research and inviting them to participate in the survey on an anonymous, voluntary and confidential

#### 3.4.2.4 *Statistical analysis*

Exploratory and confirmatory factor analysis was used to confirm the factor structure of the instrument. Cronbach's alpha coefficients were calculated for each subscale to determine the internal consistency between the items measuring each construct and to evaluate the reliability of the measuring instrument. Pearson's product-moment correlation coefficients were calculated to determine the relationships between all the subscales of the measuring instrument. Analysis of variance (ANOVA) was utilised to calculate the potential influence of the race

groups on each of the employee engagement subscales, as suggested for interval scales (Malhotra, 2010). ANOVAs were also calculated to determine if the race variable can account for any significant differences and to learn more about the origins of the psychometric variables included in the study. As there were three or more sub-variables, Scheffé tests were calculated to determine exactly where the significant differences occurred. Furthermore, Cohen's *d* was utilised to determine the strength of the relationships. Gravetter and Wallnau (2007) provide guidelines on the interpretation of Cohen's *d*. According to these authors a small effect size occurs when *d* is between 0.20 and 0.50. A moderate effect size occurs when *d* is between 0.50 and 0.80, and a large effect size occurs when *d* is equal to or greater than 0.80.

Statistical Programme for Social Sciences (SPSS) (version 22) was used to conduct an exploratory factor analysis, whilst Analysis of Moment Structures (AMOS) (version 12) was used to conduct Structural Equation Modelling (SEM) in order to determine the factorial invariance of the employee engagement questionnaire across the various race groups. SEM is a multivariate statistical method combining aspects of multiple regression analysis and factor analysis to evaluate and determine a series of interrelated dependence relationships simultaneously (Black, 2012).

## **3.5 RESULTS**

### **3.5.1 Exploratory factor analysis**

To confirm the validity of the questionnaire for financial institutions, an exploratory factor analysis (EFA) was conducted using principal component analysis (PCA) and was used to explore the factor structure of the EEI (Tinsely & Tinsely, 1987). Exploratory factor analysis is used to define and determine the number of continuous latent variables which are used to explain the correlations amongst a set of observed variables. Continuous latent variables are commonly known as factors, whereas the observed variables are referred factor indicators (Cooper & Schindler 2001; Hair, Black, Babin, & Anderson, 2010). This is achieved by condensing a large set of variables to obtain a small number of factors. The variables that highly correlate to each other are then grouped together (Pallant, 2001); however, variables that are not very clear or that cross load should be eliminated from the analysis. The orthogonal – varimax rotation was performed on the pooled solution (i.e., all the participants were included in the same analysis). This was done using the SPSS to determine whether the factorial structure of the instrument would remain the same, to examine correlations amongst the items,

as well as measure the employees' perceptions of employee engagement in their organisations. The results of the exploratory factor analysis are reflected in Table 3.2.

Table 3.2  
*Rotated Component Matrix*

Rotated Component Matrix						
	Component					
	1	2	3	4	5	6
Q51	.816					
Q50	.797					
Q46	.752					
Q45	.746					
Q49	.737					
Q52	.728					
Q47	.724					
Q48	.703					
Q61	.647					
Q59	.637					
Q60	.599					.409
Q64	.474					
Q21		.802				
Q23		.776				
Q30		.757				
Q22		.751				
Q20		.743				
Q19		.738				
Q33		.725				
Q40		.706				
Q44		.542				
Q24		.493	.479			
Q32			.733			
Q29			.711			
Q26			.673			
Q31			.667			
Q28			.652			
Q27			.650			
Q25		.453	.639			
Q63			.632			
Q56				.821		
Q55				.808		
Q57				.807		
Q62				.714		
Q67				.710		
Q58				.636		
Q68				.591		
Q36					.659	
Q39					.655	
Q38			.410		.653	
Q37					.574	
Q35					.515	
Q34					.509	
Q41					.416	
Q54						.539
Q43						.498
Q53						.471
Q42						.464
Q66						.427
Q65						.404

Subsequently, the factorability of the correlation matrix was examined using Pearson's product-moment correlation coefficients. An analysis of the distributions indicated that the notion of normality, linearity, and homoscedasticity were not dishonoured. A review of the correlation matrix showed coefficients of 0.3 and above for the majority of the constructs. The Kaiser-Meyer-Olkin (KMO) value calculated was 0.976, which is well above the minimum value of 0.50. KMO values between 0.7 and 0.8 are good, values between 0.8 and 0.9 are great, and values above 0.9 are excellent (Hutcheson & Sofroniou, 1999). The Bartlett's (1954) test of sphericity was also calculated.

Bartlett's (1954) test of sphericity reached high statistical significance,  $p < .001$ , showing that the correlations within the R-matrix were adequately different from zero to warrant factor analysis and therefore supports the factorability of the correlation matrix (Field, 2005). Results in Table 3.2 show that 50 items were initially subjected to the PCA; however, 4 of the items (Q24 – I am positive about my future in the organisation, Q25 – I feel committed to the organisation, Q38 – The organisation has a stimulating environment, and Q60 – My team continuously strives to improve performance in line with our business objectives) were removed as it cross-loaded on two factors, as per table 2. Following the EFA process, five additional items (Q44 – I feel our service to our customers usually exceeds their expectations, Q53 – My team can be described as a well organised team, Q55 – We identify the right opportunities for our customers, Q63 – I have the support from my immediate manager to do my job effectively, Q65 – In my team we operate in line with the organisational strategy) from the instrument did not fit the with the new factor structure as suggested by the EFA results, and as a consequence they were removed. The initial 50 items resulted in a 6-factor structure and explained 66.734% (Table 3.3) of the variance in the data.

Table 3.3

*Total variance – Exploratory Factor Analysis*

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
	1	22.882	45.765	45.765	22.882	45.765	45.765	7.653	15.307
2	3.911	7.821	53.586	3.911	7.821	53.586	7.422	14.844	30.151
3	2.301	4.601	58.187	2.301	4.601	58.187	6.372	12.743	42.894
4	2.133	4.267	62.453	2.133	4.267	62.453	5.418	10.837	53.731
5	1.109	2.218	64.671	1.109	2.218	64.671	3.587	7.173	60.905
6	1.032	2.063	66.734	1.032	2.063	66.734	2.915	5.830	66.734
7	.960	1.921	68.655						
8	.852	1.703	70.358						
9	.786	1.572	71.930						
10	.711	1.423	73.353						
11	.666	1.332	74.685						
12	.616	1.233	75.918						
13	.595	1.190	77.108						
14	.566	1.132	78.240						
15	.525	1.050	79.290						
16	.513	1.026	80.316						
17	.483	.966	81.282						
18	.469	.938	82.220						
19	.449	.898	83.118						
20	.437	.874	83.992						

Note: Only the top section of the table is displayed

Subsequent to the exploratory factor analysis, the researcher investigated the new factor structures. Upon investigation, the researcher found that the constructs of “Strategy Implementation” and “Organisational Satisfaction” in the original instrument were no longer applicable and therefore renamed these to “Nature of my Job” and “Job Satisfaction”, respectively.

### 3.5.2 Descriptive statistics and Cronbach’s Alpha Coefficients

Table 3.4 reflects the descriptive statistics, alpha coefficients and Pearson’s product moment correlations of the EEI. According to Odendaal & Roodt (1998), research suggests that mean scores above an average of 3.20 can be considered as a reasonable cut-off score to differentiate between positive and negative perceptions. Scores above 3.20 were accepted as positive, whereas scores below 3.20 were accepted as negative scores. Table 3.4 reflects the descriptive statistics calculated during the statistical analysis.



Table 3.4

*Descriptive Statistics, Alpha Coefficients and Pearson's Correlations Employee Engagement Dimensions*

	Mean	Standard Deviation	$\alpha$	Customer Service	Immediate Manager	Organisational Commitment	Organisational Satisfaction	Strategy Implementation	Team
<b>Customer Service</b>	3.76	0.76	0.763						
<b>Immediate manager</b>	3.62	0.97	0.921	0.592***					
<b>Organisational Commitment</b>	3.72	0.94	0.915	0.652***	0.611***				
<b>Job Satisfaction</b>	3.75	0.88	0.951	0.592***	0.623***	0.704***			
<b>Nature of my Job</b>	3.42	0.88	0.883	0.662***	0.669***	0.772***	0.673***		
<b>Team</b>	4.10	0.65	0.937	0.716***	0.567***	0.523***	0.532***	0.560***	

All correlations are significant at the 0.01 level (2-tailed).

\*\*  $r > 0.30$  – Practically significant (medium effect), \*\*\*  $r > 0.50$  – Practically significant (large effect)

Overall, the mean scores obtained for the various dimensions were reasonably high, with only two factors reporting average mean scores. The *team* dimension reported the highest mean score of  $m = 4.10$  and the lowest standard deviation of  $SD = 0.65$  whereas *Nature of my Job* reported the lowest mean score of  $m = 3.42$  and a standard deviation of  $SD = 0.88$ . The highest standard deviation of  $SD = 0.97$  was obtained for *immediate manager*, which means that the vast majority of the responses were scattered/deviated from the mean.

The alpha coefficients for all the dimensions were greater than the cut-off of 0.70 (Nunnally & Bernstein, 1994). The overall Cronbach coefficient value for the employee engagement scale was 0.970, indicating internal consistency. *Job satisfaction* produced the highest Cronbach's alpha value of 0.951, whereas *customer service* produced the lowest Cronbach's alpha value of 0.763. Based on these results it becomes evident that the employee engagement instrument demonstrates acceptable reliability.

Results in Table 3.4 further indicate that all factors are statistically and practically significantly related to each other with *organisational commitment* and *nature of my job* exhibiting the strongest correlation ( $r=0.772$ ) and *organisational commitment* and *team* exhibiting the weakest correlation ( $r=0.523$ ).

### 3.5.3 Inferential statistics

Table 3.5 displays on the ANOVA's for the various dimensions and race. ANOVA's were calculated to determine whether any significant differences exist between the various EEI dimensions in relation to the four race groups.

Table 3.5

*Summary of significant differences for different dimensions by race group*

Dimensions	Demographic Group	Mean	Standard Deviation	<i>p</i>	Cohen's <i>d</i>
<b>Customer Service</b>	<b>No Statistical Significant Differences</b>				
<b>Immediate Manager</b>	Race <b>African</b>	<b>3.45</b>	<b>1.037</b>	<b>0.045</b>	<b>0.216+</b>
	Coloured	3.67	0.981		
	Indian	3.70	0.848		
	<b>White</b>	<b>3.66</b>	<b>0.957</b>		
<b>Job Satisfaction</b>	<b>No Statistical Significant Differences</b>				
<b>Nature of my Job</b>	<b>No Statistical Significant Differences</b>				
<b>Organisation Commitment</b>	<b>No Statistical Significant Differences</b>				
<b>Team</b>	<b>No Statistical Significant Differences</b>				

$p < 0.05$  – Statistically significant, +  $d = 0.20 - 0.50$  (small effect)

As depicted in Table 3.5, *immediate manager* is the only dimension that showed a significant difference ( $p > 0.05$ ). Subsequently, the researcher conducted a Scheffé test to determine between which race groups the significant difference occurred. The results indicate that the White employees are significantly more engaged by their immediate managers than African employees, however the effect size (practical significance) of the difference is of a small magnitude ( $d = 0.216$ ). No statistically significant differences were observed for the other dimensions such as *customer service*, *job satisfaction*, *nature of my job*, *organisational commitment*, and *team*. The null hypotheses of *employees from different race groups differ significantly in financial institutions with regard to employee engagement* is thus accepted as five of the six dimensions reported no statistically significant differences and the practical significance with regard to immediate manager, reported a small practical significance.

### 3.5.3.1 *An overall race structural equation model*

Confirmatory factor analysis (CFA), using Structural Equation Modelling (SEM), was conducted to develop, specify and determine the resultant measurement model on the first-order latent construct level. CFA is typically performed using sample covariances rather than the correlations used in EFA. AMOS was used to conduct the confirmatory factor analysis using the six factors identified during the exploratory factor analysis process.

According to Byrne (2010), Structural Equation Modelling (SEM) is a statistical tool of multivariate analysis techniques, which shows the relationships between different variables through the use of measurement equations and structural equations. Measurement equations refers to the process of testing the accuracy of the proposed model by evaluating the relationship between latent variables and their indicators. Structural equations allow for the testing of statistical hypotheses by evaluating the hypothesised relationships between the latent variables (Byrne, 2010). Structural equation modelling therefore facilitates the determination and confirmation of relationships amongst multiple variables (Hair, Hult, Ringle, & Sarstedt, 2014).

As a requirement for invariance testing, it is necessary to consider the baseline model, which is then estimated separately for each of the different groups. This process involves collecting data to test whether the items of the scale comprise good indicators of a given latent construct. In order to assess factorial invariance, multi-group invariance analyses are conducted (Byrne, 2004). When determining factorial invariance, the baseline model is compared with the observed structure of two or more variables (dependent or independent). Joreskog's strategy for measuring compatibilities of structures is often followed to measure for invariance (Milfont & Fischer, 2010).

The baseline measurement model which will be used for comparison purposes is depicted in Figure 3.2.

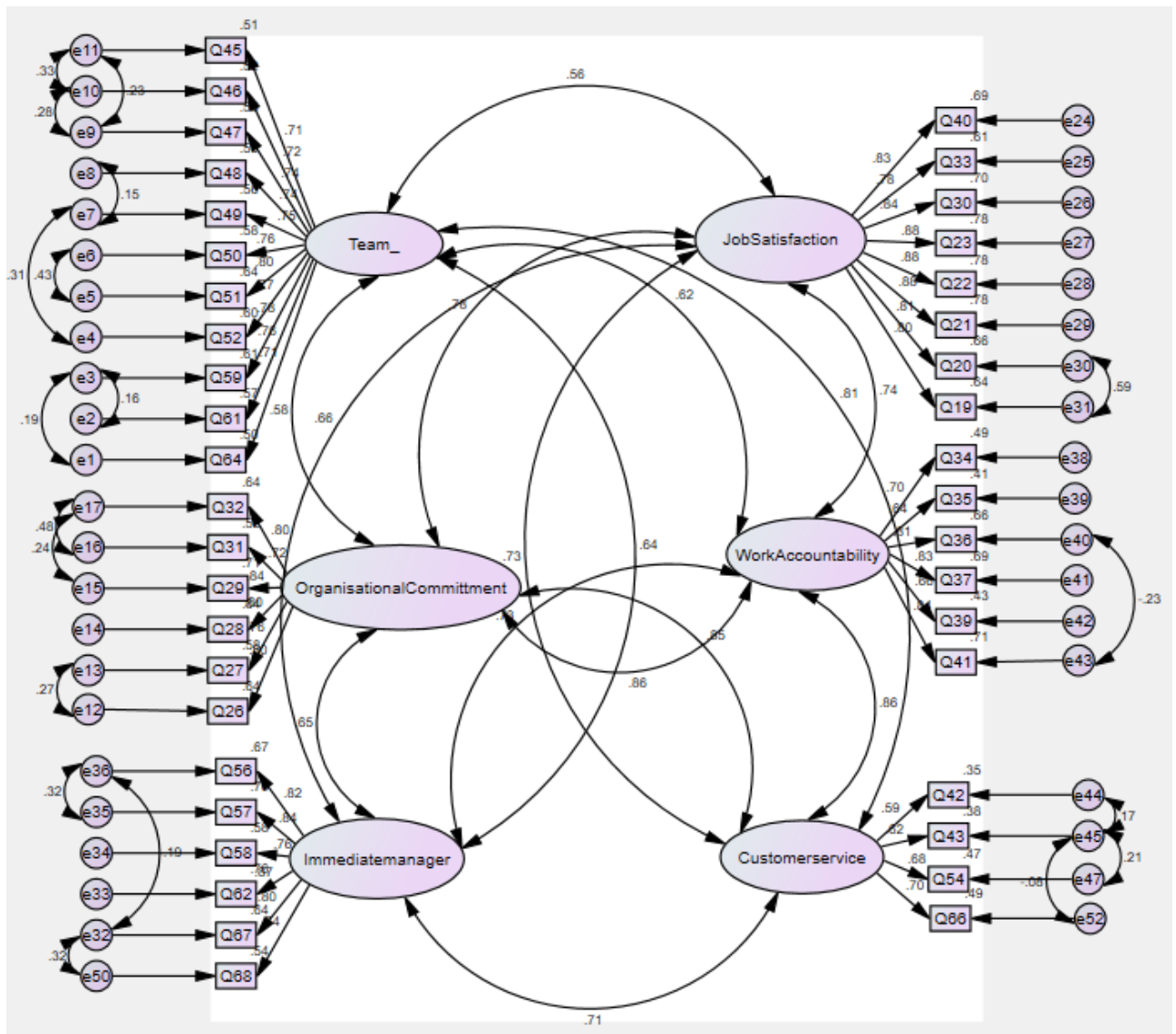
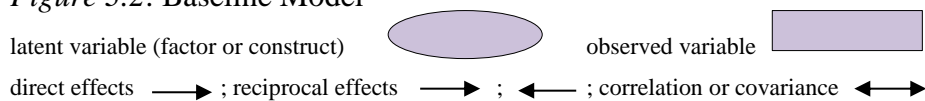


Figure 3.2: Baseline Model



To determine the validity of the model, the researcher analysed the various fit indices that demonstrate how well *a priori* model fits the sampled data and shows how the suggested model has the most superior fit. These fit indices provide an indication of how well the suggested theory fits the sampled data, whereas the incremental fit indices calculations demonstrate how well the model fits in comparison to the null model (Jöreskog & Sorbom, 2003). The absolute category includes the Chi-Square Test, Goodness of Fit Index (GFI), Adjusted GFI (AGFI) and Root Mean Square Error Approximation (RMSEA).

The results of the CFA using Structural Equation Modelling are presented in Table 3.6.

Table 3.6  
*Goodness-of-Fit Baseline Model*

<b>Absolute fit indices</b>		<b>Acceptable level</b> (Hair et al., 2010)
Chi-Square	2775.451	
Chi-Square degrees of Freedom	745	
Chi-Square (CMIN)	3.725	
P value	0.000	Significant
GFI Index	0.893	0 (no fit) 1 (perfect fit)
AGFI	0.876	
RMSEA	0.048	$\geq 0.70$ for samples $> 300$
<b>Incremental fit indices</b>		
IFI	0.947	0 (no fit) to 1 (perfect fit)
TLI	0.942	0 (no fit) to 1 (perfect fit)
CFI	0.947	$>0.90$
<b>Parsimony adjustment</b>		
PNFI	0.844	0 (no fit) to 1 (perfect fit)
RCFI	0.860	0 (no fit) to 1 (perfect fit)

The EEI was also subjected to a CFA using Structural Equation Modelling, of which the results are reflected in Table 3.6. Absolute fit indices obtained for the baseline model showed a GFI statistic of 0.893 and a RMSEA statistic of 0.048. In terms of the Incremental fit indices, results yielded an IFI of 0.947, TLI of 0.942, and a CFI of 0.947. Parsimony adjustment statistics showed a PNFI of 0.844 and RCFI of 0.860.

According to Suhr (2006) the chi-square test specifies the difference between expected and observed covariance matrices. When there is little difference between the projected and observed covariances, the chi-square value will be closer to zero. Hair et al. (2010) and Ullman (2006) specify that the goodness-of-fit indicates how well the specified model replicates the observed covariance matrix among the indicator items. Jöreskog and Sörbom (2003) first introduced goodness-of-fit indices named Goodness of Fit Index (GFI) and Adjusted GFI (AGFI). GFI statistics was introduced as an alternative to the chi-square tests and indicates the proportion of variance that is accounted for by the estimated population covariance (Tabachnick & Fidell, 2007). The GFI can range between 0 to 1, where values of 0.90 and above indicates good model fit (Diamantopoulos & Sigauw, 2000). A limitation of the GFI is

that its expected values vary with sample size (Kline, 2011). To account for complexity of the model, an analysis of the Incremental Fit Indices such as the Tucker-Lewis Index (Tucker & Lewis, 1973), commonly known as the Non-Normed Fit Index (NNFI), and the Normed Fit Index (NFI) (Bentler & Bonnet, 1980) are used.

A more modern approach to model fit is to assume that models are only approximations and that perfect therefore is unrealistic. This is known as Root Mean Square Residual (RMR) and the Standardised RMR (SRMR). Root Mean Square Error Approximation (RMSEA) values for the RMSEA range from zero to 1.0 with good-fitting models showing values of  $< 0.05$  (Byrne, 1998; Diamantopoulos & Siguaw, 2000); however, models that obtain values between  $0.05 < 0.08$  are deemed acceptable (Hu & Bentler, 1999). A RMSEA of 0 indicates perfect fit but it is important to note that RMSEA values will be lower when the model is based on larger sample sizes and models with higher numbers of parameters (Hox & Becher, 1998; Hooper, Coughlan & Mullen, 2008).

Based on the abovementioned criteria, it becomes evident that the adapted employee engagement instrument demonstrates acceptable validity in financial institutions.

### 3.5.3.2 *Multi-group Invariance*

Testing for factorial invariance includes a sequence of ordered steps, starting with the creation of a baseline model for each group, followed by tests for metric invariance across groups at each of several progressively more stringent levels (Byrne & Stewart, 2006). Many approaches have been established for testing for factorial invariance. The most commonly used process is the multi-stage, multi-group confirmatory factor analysis (Byrne, 2004). This process is referred to as forward or sequential constraint imposition approach and focuses on testing for factorial invariance across groups by investigating the chi-square difference test ( $\Delta\chi^2$ ) between two nested models; one unconstrained model (invariance not assumed) and one constrained model (invariance is assumed), based on specific measurement weights, structural weights, structural covariances, structural residuals, and measurement residuals being equal across groups (Dimotrov, 2010).

According to Meade and Lautenschlager (2004), measurement invariance (equivalence) focuses on establishing whether a construct has the same meaning under different conditions

(e.g., consistency over different sample groups). Hypotheses with regard to the measurement invariance across different groups are fitted to multiple samples using CFA. This is conducted by simultaneously fitting the covariance matrices from at least two independent samples. The model is then fitted by specifying the same measurement model across the different groups. When running this model, both the factors and the factor-indicators are the same, however all the parameters are freely estimated for each of the sample groups. To determine the extent of the invariance between the different race groups the baseline model is fitted separately for each group. The results from this statistical analysis are presented in Table 3.7.

Table 3.7  
*Employee Engagement - Goodness-of-fit Indices - Race*

	<b>African</b>	<b>Coloured</b>	<b>Indian</b>	<b>White</b>
<b>Absolute fit indices</b>				
<b>Chi-Square</b>	1364.949	1340.280	1568.417	2307.584
<b>Chi-Square degrees of Freedom</b>	745	745	745	745
<b>CMIN/DF</b>	1.832	1.799	2.105	3.097
<b>P value</b>	0.00	0.00	0.00	0.00
<b>GFI Index</b>	0.726	0.637	0.627	0.863
<b>RMSEA</b>	0.065	0.090	0.098	0.054
<b>Incremental fit indices</b>				
<b>IFI</b>	0.904	0.841	0.824	0.937
<b>TLI</b>	0.894	0.822	0.803	0.930
<b>CFI</b>	0.903	0.838	0.821	0.936
<b>Parsimony adjustment measures</b>				
<b>PNFI</b>	0.737	0.637	0.645	0.826
<b>RCFI</b>	0.821	0.761	0.746	0.851
<b>Participants</b>	197	100	116	732

The goodness-of-fit indices are displayed in Table 3.7 for the four different race groups.

- The GFIs for all four race groups are below the suggested cut-off of 0.90 with the White race showing the highest GFI of 0.863, with the Indian race indicating the lowest GFI of 0.627. This means that for all race groups there is mediocre fit in terms of the GFI.
- The incremental fit indices for the White race group are all above the recommended cut-off of 0.90, whereas IFIs for Coloured and Indian race groups are all below the suggested cut-off of 0.90. The African race group shows acceptable IFI (0.904) and CFI (0.903), with an IFI (0.894), which is below the cut-off of 0.90.
- The PNFI and RCFI for all race groups are below the recommended 0.90, with the higher values indicating better fit.

- The African race (0.065) and the White race (0.054) were the only two of the four race groups that show a RMSEA below the recommended cut-off of 0.08.

It is important to note that even if the model fits well for each group (which is not the case in this study) it is still necessary to conduct the multi-group confirmatory factor analysis as it provides a comparison standard for subsequent tests (Byrne, 2004; Milfont & Fischer, 2010). Invariance between the race groups is then tested by constraining the factorial structure to be exactly the same across the four groups (Byrne 2004). If the specified model does not fit the data, measurement/configural invariance has not been established (Byrne, 2004; Kline, 2011; Milfont & Fischer, 2010).

Structural invariance measures whether the different sample groups understand and respond to items in the same manner; in other words, it measures whether the strengths of the relations between the items and their specific fundamental construct are the same throughout the various groups. If structural invariance is obtained, the calculated ratings can be compared across groups and the observed item differences will specify group differences in the underlying latent construct. According to Vandenberg and Lance (2000), the establishment of partial structural invariance should be established before continuing with other invariance testing methods (e.g., error variance invariance, scalar invariance). This model is tested by constraining all factor loadings to be the same across groups (Milfont & Fischer, 2010).



Table 3.8

*Goodness-of-fit indices – Unconstrained and Constrained Model*

	<b>Baseline Model</b>	<b>Unconstrained Model</b>	<b>Constrained Model</b>
<b>Absolute fit indices</b>			
Chi-Square	2775.451	6595.406	6706.023
Chi-Square degrees of Freedom	745	2980	3085
Chi-Square (CMIN)	3.725	2.213	2.174
P value	0.000	0.000	0.000
GFI Index	0.893	0.790	0.788
AGFI	0.876	0.758	0.764
RMSEA	0.048	0.033	0.032
<b>Incremental fit indices</b>			
IFI	0.947	0.909	0.908
TLI	0.942	0.899	0.902
CFI	0.947	0.908	0.908
<b>Parsimony adjustment</b>			
PNFI	0.844	0.768	0.792
RCFI	0.860	0.825	0.854

Table 3.8 depicts the absolute fit, incremental fit and parsimony adjustment measures indices for the baseline model, the unconstrained model (across all race groups), and the constrained model (across all race groups). The CMIN fit statistic improved from 3.275 to 2.213 in the unconstrained model and 2.174 in the constrained model. The GFI index decreased from 0.893 to 0.790 in the unconstrained model and 0.788 in the constrained model. The AGFI index decreased from 0.876 to 0.758 in the unconstrained model and 0.764 in the constrained model. The RMSEA fit index improved from 0.048 to 0.033 in the unconstrained model and 0.032 in the constrained model. The CFI fit statistic deteriorated from 0.947 to 0.908 in both the constrained and unconstrained models. TLI deteriorated in from 0.942 to 0.899 in the unconstrained model and 0.902 in the constrained model.

Following the above, the researcher saw it fit to determine whether the Measurement Weights  $\chi^2$  (chi-square differences) model tested significance when comparing it to the baseline and unconstrained model. The results obtained from this analysis are displayed in Table 3.9.

Table 3.9

*Model Comparison for four races*

Model	DF	CMIN	P	NFI Delta-1	IFI Delta-2	RFI rho-1	TLI rho2
Measurement weights	105	110.617	.335	.003	.003	-.003	-.003

Table 3.9 shows that the chi-square change from the default model across all four race groups to the constrained model is insignificant;  $\chi^2_{105} = 110.617, p = 0.335$ . The null hypothesis of factorial invariance across the four race groups can thus be rejected as multi-group invariance can be assumed.

The above results, across the four different race groups, do not indicate significant differences with regard to the measurement weights of the latent constructs as these relate to the items. It can thus be assumed that for all four race groups the constructs were formed in the same way.

3.5.3.3 *Decisions Regarding the Research Hypotheses*

Conclusions with regard to the hypotheses of the study are based on the results as discussed above. The  $p \leq 0.05$  (5% level) confidence level and  $d \leq 0.50$  were used as the cut-off criteria for accepting or rejecting the hypotheses.

Table 3.10

*Summary of Hypotheses*

<b>Hypotheses</b>		<b>Hypotheses: Accepted/Rejected</b>
<b>H<sub>01</sub></b>	Employees from different race groups do not differ significantly with regard to employee engagement	<b>Accepted</b>
<b>H<sub>1</sub></b>	Employees from different race groups differ significantly with regard to employee engagement.	<b>Rejected</b>
<b>H<sub>02</sub></b>	Race groups display variance with regard to the EEI.	<b>Rejected</b>
<b>H<sub>2</sub></b>	Race groups display invariance with regard to the EEI.	<b>Accepted</b>

Table 3.10 depicts the decisions with regard to the hypotheses formulated for this study. Overall, the results support the null hypothesis (H<sub>01</sub>) of *race groups do not differ significantly with regard to the constructs as measured by the EEI*. Furthermore, the results also indicate

that the null hypothesis ( $H_{02}$ ) of *race groups display variance with regard to the EEI* is rejected as multi-group invariance (equivalence) can be assumed across the four different race groups.

### 3.6 DISCUSSION

The primary research objective is to determine the factorial invariance of the employee engagement instrument across the various race groups in financial institutions by means of structural equation modelling. Furthermore, this study also wishes to explore if differences exist between the different race groups for the dimensions of the employee engagement instrument.

#### 3.6.1 To determine the factorial invariance of employee engagement across the various race groups by means of structural equation modelling in financial institutions

Before the factorial invariance of the instrument could be determined the researcher first had to establish the reliability and validity of the instrument. To achieve this, an exploratory factor analysis was conducted using PCA to explore and determine the factor structure of the instrument. Results obtained from this statistical analysis showed acceptable coefficients and significance in terms of the KMO values and Bartlett's test of sphericity. Furthermore, the factor analysis showed that the six factors extracted explained close to 70% of the total variance of the instrument. Based on the results obtained from the exploratory factor analysis, 9 items were deleted from the original instrument, which resulted in a 41-item instrument. Following the deletion of these items, the researcher reviewed the remainder of the items and the corresponding factors, and found that *Strategy and Implementation* and *Organisational Satisfaction* as depicted in the original EEI were no longer relevant and were thus renamed to *Nature of my Job* and *Job Satisfaction*, respectively. The researcher decided on these new labels for the respective factors as the items which previously fell under Strategy and Implementation were similar to the items under '*Nature of my Job*', as per Imandin et al. (2014) and the items under Organisational Satisfaction were similar to items under '*Job Satisfaction*', as per Martins (2015).

The deletion of the items as indicated above resulted in a 41-item instrument and 6 dimensions. These six dimensions were then tested for reliability using Cronbach's Alpha Coefficients. The EEI demonstrated acceptable reliability overall, as did the individual subscales. These results

were consistent with findings by Martins (2015), who reported an overall Cronbach's alpha of 0.937 and alpha coefficients ranging between 0.813 and 0.942. The adapted employee engagement instrument was found to be reliable, as per Mak (2001), who suggests that Cronbach's alpha coefficients less than  $\alpha < 0.6$  should be considered as poor; an  $\alpha > 0.7$  should be considered as acceptable; and an  $\alpha > 0.8$  should be considered as good.

Subsequent to determining the reliability of the instrument, the instrument was subjected to a CFA using structural equation modelling. All indices displayed acceptable fit, except the GFI statistic, which proves to be worrisome as it is below the recommended cut-off of 0.90; however, the covariance matrix predicted by the model still explains about 89.3% of the total variability in the sample covariance matrix and the relative fit of the model shows about 94.7% improvement over the independence model fit. Based on these results, it is evident that the instrument demonstrates acceptable construct validity. The data were thus used to proceed with invariance testing among the four race groups. These results are consistent with findings by Martins (2015).

With regard to the goodness-of-fit indices for the different race groups, all four race groups reported a GFI of less than 0.90, with the White race group showing the best fit in terms of GFI, and the Indian race group showing the least favourable fit. In terms of the incremental fit indices, the white race group yielded an IFI, TLI, and CFI above the recommended cut-off of 0.90. The African race group yielded an acceptable CFI and TLI, but an IFI below the suggested cut-off of 0.90. The Coloured and Indian Race groups both yielded incremental fit indices (IFI, TLI and CFI) below the recommended cut-offs. The African and White race groups were the only two of the four race groups which yielded acceptable RMSEAs that are below the recommended cut-off of 0.08. Poor fit indices of the Coloured and Indian race group could be as a result of the small sample sizes, as some indices (i.e., chi-square tests, GFI, and RMSEA statistics) are particularly sensitive to small sample sizes. Kline (2011) states that the RMSEA statistic imposes harsher penalty for complexity of models with small sample groups. This is due to the fact that small sample groups produce few degrees of freedom, whereas larger sample groups provide more room for higher degrees of freedom values. These results therefore suggest that for Coloured and Indian race groups, the instrument displays poor model/measurement fit, for the African race group the instrument indicates mediocre model/measurement fit, and for the White race group the instrument displays good model/measurement fit.

To determine whether the constrained model tested significance when comparing it to the default and unconstrained model, a model comparison was conducted. Results showed that the chi-square change from the default model across all four race groups to the measurement weights is insignificant;  $\chi^2_{105} = 110.617, p = 0.355$ . These results therefore suggest that the EEI demonstrates multi-group invariance across the different race groups as the instrument does not indicate significant differences with regard to the measurement weights, therefore it can be assumed that for all four race groups the constructs were formed in the same way.

In summary, it can be concluded that the adapted EEI demonstrates acceptable reliability and validity. This means that in the financial institutions, interpretation of the results can be done with confidence. Furthermore, the results also indicate that the EEI can be used with confidence to measure employee engagement across the four different (African, Coloured, Indian and White) race groups in the financial sector.

### **3.6.2 To determine if any statistically significant differences exist between the results of different race groups and the various dimensions of employee engagement in financial institutions**

ANOVA was calculated to determine whether there are statistically significant differences between the various constructs of the EEI and the four different race groups. The results calculated indicated *immediate manager* is the only dimension that showed a significant difference of  $p > 0.05$ . Post-hoc analyses revealed that White employees were more engaged by their immediate managers than African employees; however, the practical significance was of a small effect size, thus indicating the significance is not large enough from which to draw any inferences.

Despite the small practical significance, research has shown that leadership and management impact differently on race groups. Dixon, Storen and Van Horn (2002) found that Black and Hispanic employees believed that they are more likely to be treated unfairly and discriminated against than their White counterparts. Furthermore, a study by Bell and Barkhuizen (2011) found that overall, White employees displayed higher levels of employee engagement than their Coloured and Black counterparts. An employee engagement study by Patel (2014), using

the Gallup employee engagement survey, found that African and Coloured employees reported the lowest mean scores with regard to leadership.

No statistically significant differences were observed for the other dimensions such as *customer service, job satisfaction, nature of my job, organisational commitment, and team*.

### **3.7 LIMITATIONS OF PRESENT STUDY**

It is important to note certain limitations of this study. The first limitation is that a cross-sectional research design was utilised in this study, which does not make provision for the measurement of variables over a period of time and does not allow for generalisation of the results. Longitudinal designs are usually favoured over cross-sectional designs as these allows researchers to establish causal relationships as well as external validity (generalisability).

A second limitation is with regard to the unequal distribution of the race groups, which potentially resulted in the GFI, RMSEA, and incremental fit indices not meeting the cut-off criteria for the Coloured and Indian race groups as it is well known that some indices are sensitive to sample size (Kline, 2011). Furthermore, the over-representation of the white race could have resulted in the results being skewed, affecting the reliability and validity of the data.

A third limitation can be attributed to the non-probability, convenience sampling method used to collect data. This sampling method prohibits the generalisation of results to the larger population.

A fourth limitation is that there is no study that has used the EEI to test for factorial invariance across different race groups in the South African context, so as a result there were no other empirical studies or literature to which the current findings could be compared.

A final limitation is with regard to the self-report measures which were employed as data collection tools. According to the Babbie (2013), social desirability, impression management and random responding are common in self-report questionnaires. This is a limitation as self-report data give rise to response biases and thus impacts on the reliability and validity of data and inferences made from the data (Goodwin, 2004).

### **3.8 RECOMMENDATIONS FOR FUTURE RESEARCH**

This study focused on the factorial invariance of an employee engagement scale across different race groups. Race groups can further be split into various different ethnic, cultural, and language groups. Future research projects can therefore focus on determining the reliability and validity of the EEI for different ethnic, cultural, and language groups. Furthermore, future research efforts can also focus on determining factorial invariance across different age/generational groups as well as gender groups. Additionally, it is recommended that the EEI is tested for reliability and validity in a cross-national context. A final recommendation for future research is the use of a longitudinal research design to evaluate and determine the effect that time and changing business environments have on employee engagement.

### **3.9 PRACTICAL IMPLICATIONS**

It is important for organisations to take cognisance of how particular socio-demographic variables influence employee engagement and the subsequent organisational commitment, job performance, and motivation. By understanding how different employees are engaged it enables organisations to customise their engagement programmes to meet the needs of the various types of employees within the organisation instead of applying a “one size fits all” approach to engagement programmes.

Based on the results of the present study and the scientific literature that exists with regard to employee engagement, it becomes apparent that the constructs measured by the EEI play an important role in the effective functioning of both individuals and organisations. Organisations that do not invest in the engagement of their employees run the risk of disengaging their employees, which will ultimately impact on the job satisfaction, organisational commitment, motivation, attraction of potential employees, and retention of existing ones.

### **3.10 CHAPTER SUMMARY**

This section of the dissertation followed a stand-alone journal article format. The literature and empirical objectives were discussed, and the results of the study were interpreted and integrated through the use and analysis of descriptive and inferential statistics. This was followed by a brief discussion of the limitations of the study, recommendations for future research and practical implications for organisations.

The following chapter discusses the conclusions and limitations of the study in detail. Furthermore, recommendations for future research are also made.



## CHAPTER 4: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

### 4.1 INTRODUCTION

The previous chapters analysed the literature, as well as information that was gathered through the use of a quantitative data collection method. A quantitative cross-sectional and descriptive research design approach was followed in this study.

The primary literature aims of the study were as follows:

- to conceptualise employee engagement from literature;
- to conceptualise the individual and organisational level antecedents of employee engagement;
- to conceptualise the impact of race on employee engagement; and
- to conceptualise how different demographic variables (gender, tenure, qualification, generation group, language) impact on employee engagement.

The primary research aims of the study were as follows:

- to determine the factorial invariance of employee engagement across the various race groups by means of structural equation modelling in financial institutions; and
- to determine if any statistically significant differences exist between the results of different race groups and the various dimensions of employee engagement in financial institutions;
- to suggest practical recommendations for Industrial and Organisational Psychology practices with regard to the management and development of employee engagement.

This chapter therefore reviews the findings from the data analysed and will conclude the research by providing an integrated summary of the main findings, as well as the implications for organisations. Finally, the researcher will discuss the limitations of the study and provide recommendations for future research.

## 4.2 CONCLUSION

This section of the dissertation focuses on the literature and empirical conclusions drawn from this study.

### 4.2.1 Conclusions based on literature objectives

A detailed literature review, with four specific aims, was conducted in order to determine how employee engagement is conceptualised in literature, the individual and organisational level antecedents of employee engagement, and the impact that demographic differences have on employee engagement.

#### 4.2.1.1 *To conceptualise employee engagement from literature*

Employee engagement was first introduced into literature by Kahn (1990). Since then, the concept of employee engagement has gained tremendous consideration from many academics and organisational practitioners. Many critics of employee engagement believed that the hype around the concept would die out; however, a plethora of different theories, models and frameworks were instead developed to explain employee engagement, as well as its significance for organisations.

Employee engagement has been characterised by conflicting definitions, epistemologies and research paradigms, with literature stating that this continues to be a challenge 26 years after it was first introduced (Little & Little, 2006; Lockwood, 2007; Smythe, 2007; Sundaray, 2011).

Kahn (1990) defined employee engagement as the harnessing of organisational members' selves in relation to the performance of their work roles. Kahn (1990) was of the opinion that engaged employees express themselves cognitively, emotionally, and physically. The cognitive aspect focuses on the employees' belief in the organisation, the leadership of the organisation, and the conduciveness of the working environment. The emotional aspect refers to the positive and negative emotions employees feel towards the organisation, the leadership of the organisation, and the working environment. Employee engagement is also concerned with the psychological and physical aspects of occupying and carrying out an organisational role (Kahn, 1990). Harter et al. (2002) defined engagement as an employee's satisfaction, connection, and

passion for the organisation, as well as their work. Hayday et al. (2004) define employee engagement as the attitude that individuals direct towards an organisation's mission, vision, and values. Macey and Schneider (2008) conceptualised employee engagement based on Kahn (1990) definition of employee engagement. Macey and Schneider (2008) refer to employee engagement as a multidimensional construct that comprises three different forms of engagement, namely trait, state, and behavioural engagement. Trait engagement focuses on an employee's positive views of life and work. State engagement refers to feelings of energy and absorption. Lastly, behaviour engagement refers to the discretionary efforts employees exert in their work roles. In summary, employee engagement can be operationalised as a series of psychological states (emotional, cognitive and behavioural) which ultimately incorporates elements of passion, commitment, satisfaction, and intrinsic motivation (Shuck & Reio, 2013).

Various other well-known definitions exist in literature, however, for this study, Macey and Schneider's (2008) definition of employee engagement (trait, state, and behaviour engagement) was adopted and the EEI was developed based on these authors employee engagement framework.

As alluded to above, one of the major challenges facing employee engagement research has been defining the concept of employee engagement. Many academics and researchers view it as a complex, multifaceted and broad concept that includes well-researched constructs such as organisational commitment, organisational satisfaction, employee loyalty, and employee motivation (Sundaray, 2011). However, Hayday et al. (2004), Erikson (2005), and Wollard and Shuck (2011) purport that that employee engagement is different to employee satisfaction and organisational commitment. Hayday et al. (2004) state that employee engagement includes elements of commitment and organisational citizenship behaviour; however, they are not the same at all. Employees may show commitment to an organisation or their work for various reasons or show some organisational citizenship behaviours but that does not mean that they are engaged in their work. Erickson (2004) states that employee engagement goes above and beyond employee satisfaction as employee engagement is about passion, commitment, and discretionary effort, despite showing signs of stress and burnout. Erikson (2004) further posits that employees who are fully engaged are willing to tolerate low levels of satisfaction with the organisation and remain committed to their work and the organisation; however, when satisfaction is low and employees are disengaged they will develop thoughts of leaving the organisation. Wollard and Shuck (2011) follows the same argument by asserting that

employees can be satisfied with their job as it provides them with a salary and job security; however, it does not necessarily mean that these employees are emotionally, cognitively and physically invested and engaged to the objectives and success of the organisation.

Various controversies were also identified in this study. Little and Little (2006), Saks (2006), and Macey and Schneider (2008) argue that discrepancies exist with regard to whether employee engagement should be considered as a behaviour or an attitude. Furthermore, various definitions and measurements of employee engagement further obscure the true meaning of the concept (Simpson, 2009). Additionally, there are debates with regard to whether engagement should be viewed as an individual-level or organisational-level phenomenon (Shuck & Wollard, 2010). Lastly, Saks and Gruman (2014) purport that in addition to the various definitions and measurement of employee engagement, there is, in general, no accepted theory of employee engagement.

There also appears to be a decline in employee engagement globally. Blessingwhite (2011) found that 17% of the 11 000 people in the sample group from various different countries and continents were actively disengaged from their work. Gallup (2013) found that only 13% of employees from 142 different countries were actively engaged in their work. These findings also indicated that actively disengaged employees outnumbered the number of engaged employees at a two-to-one ratio. With specific reference to South Africa, the survey results found that South Africans reported the highest level of disengagement in the world, with 91% of the sample indicating that they were disengaged (Gallup, 2013). These findings identified lack of meaningful work, lack of intrinsic motivation, lack of social support, poor leadership/management relations, and lack of job resources as some of the reasons (among others) for the low engagement levels (Gallup, 2013; Sakovska, 2012).

In line with the above findings, literature suggests that there are various reasons why engaged employees outperform disengaged employees. Bakker (2011) states that there are four reasons why engaged employees perform higher than their disengaged counterparts. The first reason is that engaged employees experience positive emotions. The second reason is that engaged employees often display greater health than employees who suffer from burnout, stress, or employees who are disengaged. The third reason is that engaged employees produce their own job and personal resources, and the fourth is that engagement becomes contagious, which means that engaged employees could transmit their engagement to their

teammates/group members. In summary, engaged employees display a positive, active, energised, and proactive attitude towards the world of work and the organisation.

Lastly, and perhaps the most importantly, employee engagement has been found to lead to many positive organisational behaviours and outcomes. Kumar and Kumar Sia (2012) purport that various research studies have found that when employees are highly engaged in their work, they will display enhanced levels of employee satisfaction (Barnes & Collier, 2013; Fernandez, 2007); passion and commitment to organisation vision, mission, goals, and objectives; enhanced individual job performance (Christian et al., 2011); enhanced organisational performance; growth (Bakker et al. 2008; Gruman & Saks, 2011; Harter et al. 2002; Lockwood, 2007); enhanced organisational commitment (Beukes & Botha, 2013); an energised working environment (Schaufeli, 2013); a motivated and productive workforce (Metcalf & Metcalf, 2008); good teamwork among employees and departments; high employee morale; high employee retention rates as a result of employee loyalty (Shuck, Reio Jr, & Rocco, 2011); enhanced levels of psychological capital (Xanthopoulou, Bakker, Heuven, Demerouti, & Schaufeli, 2008); enhanced levels of trust among employees and management/organisation (Macey & Schneider, 2008); work–life balance (Bedarkar & Pandita, 2016); and employees who are proud of their organisation willingly act as brand ambassadors for their organisation.

#### *4.2.1.2 To conceptualise the individual and organisational level antecedents of employee engagement*

From the above literature it becomes evident that employee engagement is both an individual and organisational level phenomenon. Literature suggests that it is important for organisations to understand the factors, antecedents, and benefits associated with employee engagement. Research by Erikson (2004) found that team work, two-way communication platforms, rewards and recognitions, empowerment, personal growth and development, trust in leadership, belief in the overall strategic vision of the organisation, and quality customer service all facilitate, drive, and enhance employee engagement in organisations. These antecedents are supported by Saks (2006), who identified similar drivers of employee engagement, namely job characteristics, rewards and recognition, perceived organisational and supervisor support, and distributive and procedural justice.

Coetzer and Rothmann (2007) found that job resources such as organisational support, growth opportunities, social support and advancement and rewards, and recognition for work well done are positively related to employee engagement, whereas job demands were negatively related to employee engagement. Patrick and Baht (2014) found that work engagement positively correlates with personal resources (optimism, hope, efficacy), indicating that work engagement enhances personal resources, and this can be attributed to the type of work that employees do.

These authors suggest that when employees negatively experience the above elements/factors, the result is active disengagement of employees. This could be detrimental to an organisation's survival as many studies have found that employee engagement leads to employee satisfaction, enhances individual performance, improves organisational efficacy, strengthens commitment to organisation, increases motivation, boosts productivity, facilitates career adaptability, reduces employee turnover, improves customer service, and enhances psychological capital and organisational citizenship behaviour. Therefore, if an organisation's employees are disengaged from their work, they forfeit the benefits that employee engagement presents.

#### *4.2.1.3 To conceptualise the impact of race on employee engagement*

Overall, no conclusive deduction can be drawn with regard to the impact of race differences on employee engagement. Research suggests that Black and Coloured employees are less satisfied and engaged than their white counterparts (Bell & Barkhuizen, 2011; Dixon, Storen, & van Horn, 2002; Igbaria, 1992; Patel, 2014). Somers (2001), on the other hand, found that Black employees were more involved and committed to their work than White employees. Research findings by Bakken et al. (2000) and Salamonson, Andrew, and Everett (2009) contradict the above findings as these authors found no statistically significant differences in how employee engagement is experienced amongst different race groups.

Despite these contradictory findings it can still be concluded that race differences do have an impact on employee engagement. However, it is important to note that the impact of these differences might differ from organisation to organisation, therefore it is essential for organisations to evaluate levels of engagement within their organisation continuously and utilise statistical analysis that goes above and beyond percentage and average/mean scores in order to determine which demographic differences impact the most on the levels of engagement prevalent in the organisation.

4.2.1.4 *To conceptualise how different demographic variables (gender, tenure, qualification, generation group, language) impact on employee engagement*

Overall, contradictory results were reported for all the demographic variables (gender, tenure, qualification, generation group, language).

Research focused on gender differences found that females are more engaged in their work than males (Bakker & Demerouti 2009; Coetzee & de Villiers 2010; Mauno, Kinnunen, & Ruokolainen, 2007).

In terms of age, research findings indicate that older generation employees display higher levels of engagement than younger generation employees (Schaufeli, Bakker, & Salanova, 2006; Coetzee & de Villiers, 2010; Blessingwhite, 2011). These findings therefore suggest that the older generation employees are more likely to display discretionary behaviour in their work, suffer less from fatigue, exert more energy, and display higher levels of resilience and perseverance in the face of adversity (Bakker, 2011). Research by Bakken et al. (2000) and Salamonson, Andrew, and Everett (2009), however, reported that no significant differences existed between employee engagement and the age variable.

Literature with regard to the tenure and employee engagement suggests that there is a strong relationship between these two variables. A longitudinal study conducted by De Lange, De Witte and Notelaers (2008) indicated that employees with longer service periods tend to show higher levels of disengagement than employees who have only spent a few years in an organisation or employees who are new to an organisation.

With regard to the qualification level variable, research findings produced contradictory results. Barkhuizen and Rothmann (2006) found that the employees in possession of a postgraduate diploma displayed higher levels of employee engagement than employees who were in possession of an undergraduate diploma/degree, or who had no qualification at all. However, results from Bell and Barkhuizen (2011) do not support these findings.

Although not the empirical focus of the study, the above literature findings provide valuable insight into the complex relationship that exists between employee engagement and demographic differences. In addition to the above demographic differences, employees also

bring with them to work unique different cultural beliefs and values, which influence their attitudes, behaviours, and what they regard as important in life and work. It is therefore important for organisations to study these demographic differences, beliefs, and values carefully in order for them to develop organisational development strategies that will ensure that employees remain engaged in their work and function at an optimal physical, emotional, and psychological level.

#### 4.2.2 Conclusions based on empirical objectives

This study was undertaken to determine whether the EEI developed by Nienaber and Martins (2014) displays invariance across the various race groups in financial institutions. Furthermore, this study also sought to ascertain whether differences exist between the different race groups for the dimensions of the employee engagement instrument.

Table 4.1  
*Summary of Hypotheses*

	<b>Hypotheses</b>	<b>Hypotheses: Accepted/Rejected</b>
<b>H<sub>01</sub></b>	Employees from different race groups do not differ significantly with regard to employee engagement	<b>Accepted</b>
<b>H<sub>1</sub></b>	Employees from different race groups differ significantly with regard to employee engagement.	<b>Rejected</b>
<b>H<sub>02</sub></b>	Race groups display variance with regard to the EEI.	<b>Rejected</b>
<b>H<sub>2</sub></b>	Race groups display invariance with regard to the EEI.	<b>Accepted</b>

Table 4.1 displays a summary of the hypotheses formulated for this study. Based on the findings of this study, the results support the null hypothesis (H<sub>01</sub>) that race groups do not differ significantly with regard to the constructs as measured by the EEI. Furthermore, the null hypothesis (H<sub>02</sub>) that race groups display variance with regard to the EEI is rejected as multi-group invariance can be assumed across the four different race groups.



4.2.2.1 *To determine the factorial invariance of employee engagement across the various race groups by means of structural equation modelling in financial institutions*

### **Conclusion 1**

In order to determine the factorial invariance of a psychometric instrument it is important first to establish the reliability and validity of the instrument. To determine the reliability and validity, exploratory and confirmatory factor analysis were conducted and Cronbach's alpha coefficients were calculated.

The EFA produced coefficients of 0.4 and above for all of the items and constructs. The KMO values obtained for this study were well above the suggested cut-off and Bartlett's test of sphericity showed high statistical significance, which supports the factorability of the correlation matrix.

Overall the EFA resulted in the deletion of nine items as four of the items cross-loaded on two different factors and five of the items did not fit in with the new suggested factor structures. The result was a 41-item scale. Further investigation of the items which make-up the different constructs showed that two of the construct names were no longer relevant and were subsequently renamed from *Strategy and Implementation* and *Organisational Satisfaction* to *Nature of my Job* and *Job Satisfaction*, respectively. These new labels were based on literature findings from Imandin et al. (2014) and Martins (2015), and appear to be more relevant to the financial industry.

The overall Cronbach's alpha values for all the dimensions were way above the suggested cut-off of 0.70. *Job satisfaction* showed the highest Cronbach's alpha value, whereas *customer service* showed the lowest. It can therefore be concluded that the EEI is reliable as it shows high internal consistency.

The CFA results using structural equation modelling from AMOS showed that the instrument was valid as it reported GFI, RMSEA, Incremental Fit Indices and Parsimony Adjustment Indices that meet the suggested cut-off criteria.

Based on the above findings, the instrument displayed acceptable reliability and validity for the financial industry. Subsequently, the data were used to test for multi-group invariance across the four different race groups.

## **Conclusion 2**

The model comparison (comparing the constrained model to the default and unconstrained model) showed that the change in chi-square from the default model across all four race groups to the constrained model is insignificant. These results therefore indicate that the EEI demonstrates multi-group invariance across the four different race groups, suggesting that the constructs for all four race groups, as measured by the employee engagement instrument, were formed in the same way.

Structural Equation Modelling was conducted individually for each race group. The results from these different CFAs produced GFI indices below the recommended cut-off criteria for all race groups, with the White group showing the best fit, the African/Black group showing a mediocre fit, and the Indian and Coloured groups showing the least favourable GFI indices. Similarly, the White race group produced acceptable incremental fit indices, as did the African race group, with the exception of the IFI, which was below the suggested cut-off for the African group. All incremental fit indices were below the recommended cut-off criteria for the Coloured and Indian race groups. In terms of the RMSEA statistics, the African and White groups were the only two of the four race groups that produced acceptable RMSEA values. These results indicate that the EEI displayed good measurement fit for the White race group, mediocre measurement fit for the African race group and poor measurement fit for the Coloured and Indian race groups. The poor measurement fit for the Coloured and Indian race groups could be attributed to the small sample size for these groups.

Overall, it would appear that the instrument can be used with confidence to measure the employee engagement across different race groups in the financial industry.

4.2.2.2 *To determine if any statistically significant differences exist between the results of different race groups and the various dimensions of employee engagement in financial institutions*

The ANOVA results showed that *immediate manager* was the only dimension that indicated a significant difference. The Scheffé test showed that White employees are significantly more engaged by their immediate managers than African employees; however, the effect size (practical significance) of the difference is of a small magnitude. No statistically significant differences were observed for the other dimensions, such as *customer service, job satisfaction, nature of my job, organisational commitment, and team*.

The results therefore suggest that employees from different race groups do not differ significantly as five of the six dimensions reported no statistically significant differences and the practical significance with regard to race and immediate manager was of a small practical significance.

#### **4.2.3 Conclusions regarding the contribution of this study to the field of industrial and organisational psychology**

Analysis of the literature review and findings from the empirical study have contributed to the body of literature and knowledge that exist of the topic of race and employee engagement. Specifically, the literature review clarified some of the controversies and criticisms that exist with regard to employee engagement such as whether employee engagement is an individual, team and organisational level phenomenon.

In terms of the employee engagement instrument used in this study, the findings indicate that the instrument (comprising of six dimensions namely; immediate manager, customer service, team, nature of my job, organisational commitment and job satisfaction) demonstrate good model/measurement fit and that the instrument can be used with confidence to measure employee engagement across different race groups in the financial industry. Organisations in this industry who want to measure employee engagement within their organisations can therefore use the tool to assess how engaged their employees are. It is however important to note that the instrument should be used in conjunction with other organisational development tools to gain a holistic view of the organisational development needs of the organisation.

Another key finding from this study is that the engagement levels of the sampled employees lean more towards the positive side with employees in the financial sector of South Africa displaying moderate to high levels of engagement, however it is important to note that there is room for improvement especially with regards to how employees are engaged by their work and their immediate managers.

Overall, the findings of this study confirm that academics and practitioners can benefit a great deal from understanding the impact that demographic differences such as race have on employee engagement in order to develop employee engagement initiatives and strategies which will enhance individual and subsequently organisational performance and effectiveness.

### **4.3 LIMITATIONS**

#### **4.3.1 Limitations of the literature review**

A major limitation of the literature review is the fact that no previous study has used the EEI to test for factorial invariance across different race groups in financial institutions in the South African context, therefore there were no empirical studies or literature to which the current findings could be compared. There is also a lack of research on race and how it impacts on employee engagement within both the South African and international context.

#### **4.3.2 Limitation of the empirical study**

A number of limitations were noted during the completion of this study. The first limitation was that a cross-sectional and descriptive research design was utilised in this study, which does not provide an explanation of the causal relationship between the different dependent and independent variables. The relationships between research variables in this study were therefore measured at a specific point in time and were merely described, rather than established. A longitudinal research design should be employed to provide a better understanding of the causal relationship between the different variables.

A second limitation was with regard to the unequal distribution of race groups as the majority of the sample was White (62%), with the Coloured and Indian race groups together representing less than 20% of the total sample. Firstly, the overrepresentation of the White race group could

potentially impact on the validity and reliability of the findings, due to the sample being skewed in favour of the White group. Also the underrepresentation of the Coloured and Indian race groups could have resulted in the GFI, RMSEA, and incremental fit indices not meeting the cut-off criteria due to the fact that these indices are sensitive to sample size.

A third limitation was the sampling method used to collect the data. Non-probability, convenience sampling limits the generalisation of findings to the larger South African population group. The use of a random sampling method may have allowed for the generalisation of the results. Caution should therefore be taken when generalising the findings of this study across different demographic groups.

A final limitation is the use of self-report measures, which may have led to method variance. Babbie (2013) and Goodwin (2004) posit that social desirability, impression management, and random sampling often impact on the reliability and validity of data as they give rise to response biases.

Regardless of the abovementioned limitations, the findings of this study provide valuable insights into the reliability and validity of the employee engagement instrument used in this study. These findings can therefore be used as a basis for future research studies.

#### **4.4 PRACTICAL IMPLICATIONS**

Based on the findings of this study, recommendations are made regarding employee engagement within organisations in the financial sector, and suggestions for future research.

From the literature it is evident that employee engagement plays a critical role in the financial sustenance of an organisation. In order for organisations to reap the benefits of employee engagement, it is important that organisations understand the foundations and underlying forces that drive employee engagement. One of these driving forces is understanding how people from different demographic backgrounds respond to employee engagement initiatives developed and implemented by organisations, instead of applying a “one size fits all” approach to engagement programmes.

*Nature of my job* and *immediate manager*, both drivers and antecedents of employee engagement, received the lowest mean scores in this study, suggesting that other aspects such as autonomy, meaningful and challenging work, participation in decision-making, and management/leadership support are most important for financial institutions to address. Employees' work roles should therefore be redesigned to include more autonomy, development, challenge, and meaning in their work, and should be directly tied to the business strategy of the organisation. Furthermore, organisations are to equip their management and leaders with the necessary people skills, and should encourage trust and positive working relations amongst management and employees, as ineffective management styles and poor relations can ultimately lead to the disengagement and turnover of talented employees. Coetzer and Rothmann (2007) purport that that job resources such as organisational support, growth opportunities, social support, and advancement are positively related to employee engagement.

As evidenced in the literature review, the financial industry is one of the industries that is experiencing some of the lowest levels of employee engagement, so it is therefore important for organisations functioning in this industry to equip themselves with the necessary resources to engage their employees effectively. Shuck, Rocco, and Albornoz (2011) suggest the following to improve/enhance employee engagement initiatives within organisations:

- develop, implement and sustain a culture of engagement;
- provide the tools and resources necessary to support management in creating a culture of engagement; and
- provide opportunities for learning and growth to employees at different levels in the organisation.

However, it is important for organisations, especially financial institutions, to bear in mind that to create a culture it is not a one-step process. It is a challenging and robust development that requires proper research and understanding of employee engagement, with a clear concept and strategy for employee engagement initiatives that are tailored to the organisational culture and the specific needs of the employees within the organisation (Shuck & Wollard, 2010). Financial institutions can therefore use the employee engagement instrument used in this study to measure employee engagement levels in their organisations, as the instrument displayed acceptable validity and reliability as well as factorial invariance across different race groups within the financial industry.

In summary, the ever-changing, unstable, and uncertain business environment, now more than ever requires employees who are actively engaged in their work. As evidenced by the literature, it is important for organisations, especially financial institutions, to start investing in the engagement of their employees, or they will run the risk of disengaging their employees, which will ultimately impact on the job satisfaction, organisational commitment, motivation, attraction, and retention of existing and potential employees.

#### **4.5 RECOMMENDATIONS FOR FUTURE RESEARCH**

South Africa is a country that it is rich in diversity. It is common knowledge that in addition to various race groups in South Africa, there are variety of different ethnic/cultural groups whose members speak various languages. It is therefore recommended that future research studies focus on establishing/determining factorial invariance for different ethnic/cultural and language groups.

Additionally, future research projects may also wish to focus on establishing factorial invariance for individuals from different age/generational groups and gender groups.

It would be of interest to investigate whether the EEI detailed in this study would be scientifically reliable and valid in other countries. For this purpose, it recommended that future research adopts a cross-national focus.

Lastly, a longitudinal study should be conducted over time to determine the effect of changing business environments on employee engagement.

#### **4.6 INTEGRATION OF THE STUDY**

This research study sought to determine the factorial invariance of a South African-developed employee engagement instrument across different race groups in the financial sector by means of structural equation modelling. Furthermore, this study also aimed to investigate the impact that race has on employee engagement in order for the researcher to understand the main reasons why some race groups are more engaged at work than others.

The present study thus attempted to fill the gap in knowledge regarding employee engagement within in a multicultural South African context, particularly with regard to race. Implications from study may assist organisations (Industrial and Organisational Psychologists and Human Resources Practitioners) and academics in identifying ways of effectively engaging employees physically, emotionally, and psychologically.

#### **4.7 CHAPTER SUMMARY**

This chapter provided a discussion of the conclusions with regard to the different literature and empirical objectives that were formulated in chapter one of this research study. Furthermore, this chapter also discussed the limitations relevant to the study, the practical implications that industry should consider when developing employee engagement initiatives, as well as recommendations for future research.



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