

**CONSTRUCTING A PSYCHO-SOCIAL MODEL FOR TEAM
COHESION AT A FINANCIAL INSTITUTION**

by

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in the subject

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at the

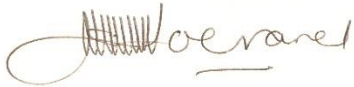
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June 2018

DECLARATION

I, Elias Mochabo Moerane (Student No. 5593026), declare that “**CONSTRUCTING A PSYCHO-SOCIAL MODEL FOR TEAM COHESION AT A FINANCIAL INSTITUTION**” is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.



12 December 2018

Mr EM Moerane

Date

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DEDICATION

My special dedication goes to the two departed women who immensely contributed to my character and well-being. My mother Johanna Moerane and sister Agnes Moerane. I have no doubt that you are also cheering and proud of my success in heaven!

“The fear of the LORD is the beginning of wisdom” Proverbs 9:10

My exceptional, extraordinary praise and dedication goes to the Lord, the Almighty God for granting me the undeserved favour and spiritual guidance to realise my lifelong dream. He is the maker, creator and loving sole owner of everything in heaven and on earth. “For God so loved the world that he gave His one and only Son, that whoever believes in Him shall not perish but have eternal life.” John 3:6

This thesis provided the scientific psycho-social interpretation of Psalm 133:1: “Behold, how good and how pleasant it is for brothers dwell together in unity!” The Lord Almighty has always wanted people to live side by side in peace, unity and harmony with one another. Hence, he declared, “Be perfect, be of good comfort, be of one mind, live in peace, because the God of love and peace shall be with you,” 2 Corinthians 13:11, for “the fruits of the spirit is love, joy, peace, forbearance, kindness, goodness, faithfulness, gentleness and self-control,” Galatians 5:22-23, and “the peace of God, which passes all understanding, shall keep our hearts and minds through Christ Jesus”. Phillipians 4:7.

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O Modimo wa boikanyo!

Modimo o phala baloi! Ga a yo ya tshwanang le ena!

Kubonke o Thixo Akekho onjengawe kuba yinceba zakhe zimi nguna phakade!

There is no one like You, Your profound love and mercies endure forever!

AMEN!!!

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In honour of the two following soccer teams that kept me sane and energised:



AMAKHOSI for LIFE!!!

Throughout the journey I was motivated by the quote of Nelson Mandela, the former President of South Africa and the African National Congress (ANC),

“It always seems impossible until it is done”

ABSTRACT/SUMMARY

The purpose of the study was to construct a psycho-social model for team cohesion at a financial institution. The financial institution had been in existence for 127 years, and had faced significant challenges throughout its history of acquisitions and mergers to establish working teams that would give it a competitive edge in global financial markets. The research objective was to develop a psycho-social model for team cohesion by investigating the interrelationships and overall relationships amongst the independent constructs (self-worth, personality preferences and conflict resolution styles) and the relevant outcome (team cohesion). Furthermore, the study also scientifically tested the possible moderating effect of the employees' socio-demographic characteristics (race, gender, age, level of education, job level and tenure) on the fostering of team cohesiveness.

A quantitative cross-sectional survey design approach was selected and applied to a simple probability sample (N = 463) using standardised, valid and reliable measuring instruments. The population consisted of permanent employees, and the results revealed significant relationships between the construct variables. The canonical correlation indicated a significant overall relationship between the contingencies of self-worth domains, personality preferences and conflict resolution styles, and the team cohesion-related dispositions of cohesiveness and engaged. The structured equation modelling indicated a good fit of the data between the individuals' contingencies of self-worth domains (family support, God's love, virtues, competition, work competence, physical appearance and pleasing others), the accommodating conflict resolution style, an extraversion personality preference, and team cohesion. Hierarchical moderated regression showed that race, age, educational level and job tenure significantly moderated the relationship between the participants' psycho-social attributes and team cohesion. Tests for significant mean differences revealed significant differences in terms of the socio-biographical variables.

On a theoretical level, the study deepened understanding of the antecedent constructs (self-worth, personality preferences and conflict resolution styles) and team cohesion construct. On an empirical level, the study produced an empirically tested psycho-social model for team cohesion.

This study will add significant practical, valuable knowledge to the organisation in managing the future establishment and enhancement of team cohesion, and when integrating new team members to the environment during organisational restructuring and re-alignment after acquisitions and mergers, without negatively affecting organisational effectiveness.

These findings invariably provided new insight in managing and understanding inherent interpersonal conflict among employees in the workplace and the enhancement of team cohesion practices, thus adding to the existing body of knowledge in the fields of Consulting Psychology and Industrial and Organisational Psychology, more specifically in financial organisations.

KEY TERMS

Contingencies of self-worth domains, conflict resolution styles (competing, avoiding, compromising, accommodating and collaborating), personality preferences, interpersonal goals (self-image and compassionate goals) and team cohesion.

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CHAPTER 1: INTRODUCTION AND BACKGROUND TO THE STUDY

The role played by psychological variables, such as personality preferences and self-worth in influencing, shaping and developing cohesive team behaviour in the workplace, has not yet been thoroughly investigated. Similarly, the relationship between social psychological constructs, such as conflict resolution styles and team cohesion, has also not been thoroughly investigated. Seen in this light, the current research study focused on the construction of a psycho-social model for team cohesion. The constructs relevant to this study are the psychological constructs of self-worth and personality preferences, and the social psychological constructs of conflict resolution styles and team cohesion.

This chapter provides the background and motivation for the current study and illuminates the problem statement and research hypotheses. This chapter also presents the paradigms and perspectives underpinning the definitive boundary of the study in terms of the literature review and empirical study. The research process, including the methodology, choice of psychometric instruments, data analysis techniques, and ethical considerations in support of the study, are discussed. The chapter concludes with a layout for the chapters comprising the thesis.

1.1 BACKGROUND AND MOTIVATION FOR THE RESEARCH

Literature has shown that when individuals feel a sense of attachment, they are more likely to work in a cooperative manner. In a study conducted by Pooler, Qualls, Rogers and Johnson (2014), using the Group Cohesion Scale (GCS), they found that team cohesion among members was positively related to the effectiveness of the group. The GCS measures team cohesion in terms of the interaction and communication between team members. To the same end, a research study by Pooler *et al.* (2014) measured the variable of cohesion against self-efficacy, social support and coping. An earlier study by Burlingame, McClendon and Alonso (2011) found that the team connectedness and the relationships within the team enhanced team cohesion.

A study by Thomassen, Hystad, Johnsen, Laberg and Eid (2015) investigated the influence of hardiness and cohesion on mental health in a military peacekeeping

mission. The results of the research study confirmed the previous findings by Burlingame *et al.* (2011) related to the importance of hardiness and cohesion in mental health in a military context.

To further build and close the gap in literature pertaining to team cohesion, this research study explored the relationships between team cohesion and the elements of the psycho-social variables of self-worth, personality preferences and conflict resolution styles. This study is loosely based on Baby's (2016) recommendation that future scientific research be conducted using a larger population in order to improve the external validity of these psycho-social constructs, more especially, to study the various ways of conflict resolution within work teams and how team members learn to cooperate and show compassion for each other (Baby, 2016).

Aeron and Pathak (2017) recommended future research on the relationship between personality and conflict to assist managers in the workplace to understand personality as a secondary dimension, and to provide further insight into the management of personality-related conflict to foster team effectiveness. Although conflict typically emerges in teams because of personality differences, various personality attributes can contribute significantly towards establishing and enhancing relationships between individuals in teams (Jensen-Campbell & Graziano, 2005; Aeron & Pathak, 2017). In addition, the research contributes to the current literature on cohesion by presenting meta-analytical conclusions, designing a model and presenting practices to improve team cohesiveness.

The research study was conducted in a large South African insurance-based financial services group listed on the Johannesburg Stock Exchange (JSE). The financial organisation provides investment- and savings products, life insurance solutions, health products, and short- and long-term insurance products. The overarching business strategy is to provide products and solutions tailored to and centred on meeting their customers' needs in the ever-changing global world of work which is characterised by intense competition in order to increase market share and provide good returns to shareholders. The organisation is fundamentally values-based, and espouses the following values:

- Accountability,
- Diversity,
- Excellence,

- Innovation,
- Integrity, and
- **Teamwork.**

To successfully increase its competitive advantage, the organisation needs to develop strategies to motivate and retain employees by, for example, establishing collaborative relationships and team cohesion. Such strategies are embedded in the discipline of Consulting Psychology and Industrial and Organisational Psychology, under the sub-discipline of labour relations and personnel psychology.

The advent of democratic South Africa opened global business opportunities. Global organisations use teams for competitive advantages and more South African business organisations entered the global market and are in competition with international organisations. Nolon and Croson (1995) assert that globalisation has forced business organisations to utilise flatter structures and to become more adaptable and flexible in order to survive in the international competitive environment. This was confirmed in the research study conducted by Spisak, O'Brien, Nicholson and van Vugt (2015) which found that flatter niche structures increase fitness value and organisational traits such as democratic normative beliefs and associated behaviours. In addition, flat business structures enable management to speedily address coordination problems. Spisak *et al.* (2015) assert that the construction of a flatter structure is intended to focus investment and to secure fitness in a competitive global environment.

In the future, the differentiator of a financial institution's ability to survive global competition and increase its market share, given the fact that most the competitors' products and services rendered are basically the same, will be how working teams are cohesive in meeting their customers' complex needs. According to Peppers and Rogers (2011), the services provided by working teams have to be customer-centric in order to retain and increase the customer base, and the products and services rendered must be tailored to meet the clients' needs.

James (1982) had previously suggested cited attributes such as friendliness, mutual liking, cooperation and motivation are characteristics of a highly cohesive team. George and Bettenhausen (1990) posited that emotional support and the team members' sense of satisfaction are related to cohesive teams. Members' positive behaviours are associated with prosocial behaviours, whereas the manifestation of members' negative behaviour is associated with eventual voluntary termination within

the team. Abid, Gulzar and Hussain (2015) concurred that in cohesive teams members' reflect a high attraction to each other, express positive feelings about each other, display mutual liking, cooperation, friendliness and intend to remain with the team forever.

Locke (1996) suggested that goal setting leads to team cohesiveness. He maintained that the set goals should be challenging and achievable. Goals that are too stretching, inflexible and unrealistic could demoralise the team members. Shields, Gardner, Bredemeier and Bostro (1997) maintained that a positive correlation exists between team cohesiveness and team performance. Friedken (2004) maintained that team cohesion can be described as the individual personal interactions and relationships that develop through team membership, which then lead to interpersonal influences among individual members within the team context. Banwo, Du and Onokala (2015) concurred that team cohesiveness is directly linked to high organisational performance. They also found that the stage and life cycle of teams have either a positive or a negative correlation with team cohesion, which ought to be taken into consideration when evaluating the outcomes of team cohesion and performance.

1.2 PROBLEM STATEMENT

Banwo *et al.* (2015) maintained that team cohesion greatly impacts on organisational performance. The research study intended to investigate the relationship between team cohesion and psycho-social variables, namely, self-worth, personality preferences and conflict resolution styles, at a financial institution.

Various scholars have come to the conclusion that the formation of cohesive working teams requires teams to work in a united manner. For example, House (1971) maintained that team cohesion was an important determinant of team effectiveness in any organisation. Carron (1982) suggested that team cohesion was a dynamic process which was reflected in the team's tendency to remain united in achieving its goals and objectives. It is envisaged that the feasibility of analysing the cross-relationships amongst the measures of employee self-worth, conflict resolution styles, personality preferences and team cohesion will assist organisations in the allocation of employees into effective new working teams during mergers and acquisitions. For example, in the same way Gu, Zhang and Smith (2015) found a correlation between team cohesion, self-efficacy, perceived interest and physical activity.

Barry and Stewart (1997) found that personality variables are related to team performance and outcomes. O'Neill and Kline (2008) also found a positive relationship between personality variables and team performance and outcomes. Hardiman (as cited in Coplien, Kerth & Weinberg, 1998) also found that the MBTI (Myers-Briggs Type Indicator) personality preferences indicate job success. These scientific findings provide a platform to further investigate the relationship between personality type theory that explains employees' individual differences in conflict management, and interpersonal relating styles. Furthermore, the theoretical understanding pertaining to the use of the four mental functions (sensing, intuition, thinking and feeling) and attitudes (extraversion – introversion and perceiving – judging) can contribute to employees' team cohesiveness. (Briggs & Briggs-Myers, 1998).

Interpersonal conflict management and team cohesion are discussed from the chaos and system perspectives. Although the two constructs appear to be different, they actually lead to the same result. The chaos theory originated from the systems theory perspective. It describes human interaction in a system which is self-organising and self-coordinating in the creation of a whole, by virtue of interdependent parts (Robertson & Combs, 2014). Pryor and Bright (2014) acknowledge the contributions of system theory and constructivism to the development of the chaos perspective.

The chaos perspective views interpersonal relationships as non-linear dynamics (Robertson & Combs, 2014). The degree of chaos adapts to the circumstances (Freeman, 1992). This phenomenon was described by Lewis (1993) as 'life at the edge of chaos'. Tuckman's (1965) classical theory described this stage of team development as the storming phase, which is characterised by individuals involved in fighting and disagreements. Interpersonal conflict preceded the emergence of a new structure and team cohesion (Robertson & Combs, 2014). Pryor and Bright (2014) confirmed that the chaos perspective is a non-linear, dynamical system, full of motion, change and emerging events.

According to Robertson and Combs (2014), chaos theory is a scientific paradigm that offers the opportunity to deal with aspects of human behaviour previously ignored by psychologists.

The literature review on self-worth, conflict resolution styles and personality preferences indicates the following research gaps and the researcher also intends to

extend the current literature on the association of these psycho-social variables and team cohesion:

- There is limited information available in the fields of Consulting and Industrial and Organisational Psychology about the theoretical and empirical relationship amongst self-worth, conflict resolution styles, personality preferences and team cohesion (Baby, 2016).
- It is the view of the researcher that in the South African context, the nature of the inter- and cross-relationships among self-worth, conflict resolution styles and personality preferences to foster team cohesion are unknown.
- Baby (2016) found that self-worth, resilience and tolerance for agreement were positively correlated to team building. Baby (2016) recommended a larger diversified population of participants to improve the external validity of the constructs. The study found that individuals with a high tolerance for disagreement were relatively conflict resistant, and individuals with a low tolerance for disagreement were highly conflict-prone. According to Baby (2016), self-esteem is a socio-psychological term that measures the attitudes and perceptions of self-worth, that is, how valuable or worthless, good or bad, superior or inferior, or lastly how positively or negatively people perceive themselves. This research will further explore and build on Baby's research.
- Canevello and Crocker (2017) found that individual self-worth was characterised by two conflicting interpersonal goals, namely, compassionate and self-image goals. The compassionate goals created a sense of belonging and lasting, positive, significant and high quality interpersonal relations. The gap in the literature is that which links self-worth interpersonal goals to team cohesion.
- The compassionate goals occurred within what Canevello and Crocker (2017) referred to as the eco-system perspective. Individuals with compassionate goals are supportive, caring, collaborative, responsive, and create non-zero-sum relations. These individuals deliberately avoid doing anything that will be harmful to others. The gap in the literature is to determine whether self-worth interpersonal compassionate goals can be linked to the accommodating, compromising and collaborating conflict resolution styles
- Canevello and Crocker (2017), however, found that self-image goals undermined team cohesion. The individuals with self-image goals wanted to get their self-

interest and self-focused needs met through other people. They were in zero-sum relationships (win-lose) and avoided showing their weaknesses. The gap in the literature is to determine whether self-worth interpersonal self-image goals can be linked to the competing and avoiding conflict resolution styles.

- The self-image goals occurred within what Canevello and Crocker (2017) referred to as the ego-system perspective. It was characterised by individuals feeling conflicted, confused, less responsive, and experiencing emotional unease in interpersonal relationships. The gap in the literature is to determine whether self-image goals are related to personality preference types.
- To investigate the overall interrelationships among self-worth interpersonal goals (compassionate and self-image), interpersonal conflict resolution styles, personality preferences and team cohesion, thus contributing to the existing body of knowledge in Consulting and Industrial and Organisational Psychology.
- The historical definition of the team cohesion variable has been limited to social and task cohesion (see Table: 3.1 and Figure 6.3). The gap identified was the absence of psychological cohesion as measured by the Contingencies of self-worth scale (CSWS).

In summary, after identifying the main research gaps, this research study intends to contribute to the existing body of knowledge by investigating the relationship between self-worth, personality preferences and conflict resolution styles, and team cohesion, while also examining the moderating effect of the employees' socio-biographical characteristics (race, gender, age, level of education, job level and job tenure) on fostering and enhancing team cohesion.

From the above, the following specific research questions have been formulated in terms of the literature review and the empirical study.

1.2.1 General research question

The following general research question has been formulated for the study:

To investigate the pertinent relationship dynamics, the interrelationships and the overall relationship between self-worth, personality preferences and conflict resolution styles (independent variables) and team cohesion (dependent variable).

Given the above, the general research question was formulated as:

To what extent can a team cohesion model for the measurement of psycho-social variables within a financial institution be constructed?

1.2.2 Research questions with regard to the literature review

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

Research question 1: How are the psychological variables (conceptualised as self-worth and personality preferences) explained by theoretical models in the literature?

Research question 2: How are the sociological variables (conceptualised as conflict resolution styles and team cohesion) explained by theoretical models in the literature?

Research question 3: What is the nature of the theoretical relationship between psychological variables, sociological variables and socio-biographical characteristics (measured by age, gender, race, qualifications, job level and job tenure)?

Research question 4: Can a scientific theoretical model be constructed on the relationship between psychological variables (conceptualised as self-worth and personality preferences) and sociological variables (conceptualised as conflict resolution styles and team cohesion)?

Research question 5: What are the implications of the theoretical integrated psycho-social team cohesion model for Consulting Psychology and Industrial and Organisational Psychology practices regarding team effectiveness and team cohesiveness?

1.2.3 Research questions with regard to the empirical study

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

Research question 1: What is the nature of the statistical inter-relationships between the independent psycho-social variables (self-worth, personality preferences and conflict resolution styles) and the dependent variable team cohesion?

Research question 2: Do the psychological variables (conceptualised as self-worth and personality preferences) and the sociological variable (conceptualised as conflict resolution styles), positively and significantly predict team cohesion (while controlling the socio-biographical variables)?

Research question 3: Based on the overall statistical relationship between the psychological variables (conceptualised as self-worth, personality preferences), sociological variable (conceptualised as conflict resolution styles) and team cohesion, is there a good fit between the elements of the empirically structural model and the theoretically hypothesised model?

Research question 4: Do the socio-biographical variables (age, gender, race, qualifications, job level and job tenure) significantly moderate the relationship between the psycho-social variables conceptualised as self-worth, personality preferences and conflict resolution styles and team cohesion?

Research question 5: Do significant differences exist between the mean differences subgroup of the socio-biographical variables that acted as significant moderators between the psycho-social variables and team cohesion as manifested in the sample of respondents?

Research question 6: What conclusions and recommendations can be made for the enhancement of team cohesion within the financial organisational context, and what suggestions can be made for possible future research based on the findings of the study?

1.3 AIMS OF THE RESEARCH

From the above research questions, the aims as stated below were formulated.

1.3.1 General aims of the research

The general aim of the study was to explore and determine the elements and the nature of the team cohesion model that manifests from investigating the relationship dynamics between the psycho-social attributes (self-worth, personality preferences and conflict resolution styles) and team cohesion, and to explore whether individuals from different socio-demographic groups differ significantly regarding these variables.

1.3.2 Specific aims of the research

The specific aims for the literature review and empirical study are stated below. The five specific aims are depicted in Table: 1.2 (to follow).

1.3.2.1 Literature review

In terms of the literature review the specific aims are:

Research aim 1: To explore psychological variables, conceptualised as self-worth and personality preferences, from a theoretical perspective.

Research aim 2: To explore sociological variables, conceptualised as conflict resolution styles and team cohesion, from a theoretical perspective.

Research aim 3: To explore the theoretical relationship between psycho-social variables (self-worth, personality preferences) and conflict resolution styles, team cohesion and socio-biographical variables, conceptualised as age, gender, race, qualifications, job level and job tenure, from a theoretical perspective.

Research aim 4: To construct a theoretical perspective model on the relationship between psycho-social variables, conceptualised as self-worth, personality preferences and conflict resolution styles, and team cohesion.

Research aim 5: To critically evaluate the implications of the overall theoretical relationship between the psychological disposition constructs and

sociological disposition constructs by means of an integrated team cohesion model for Consulting Psychology and Industrial and Organisational Psychology practices regarding team cohesion development and enhancement.

1.3.2.2 Empirical study

In terms of the empirical study, the specific aims were:

Research aim 1: To empirically explore the nature and the inter-relationships between the independent psycho-social variables (self-worth, personality preferences and conflict resolution styles) and the dependent variable team cohesion.

Research aim 2: To empirically assess whether the psychological variables (conceptualised as self-worth and personality preferences) and sociological variable (conceptualised as conflict resolution styles), positively and significantly predict team cohesion (while controlling the socio-biographical variables).

Research aim 3: To empirically investigate the overall statistical relationship between the psychological variables (conceptualised as self-worth and personality preferences), the sociological variable (conceptualised as conflict resolution styles) and team cohesion, and to empirically assess the statistical fit between the elements of the empirically manifested structural model and the theoretically hypothesised model.

Research aim 4: To empirically assess whether socio-biographical variables (age, gender, race, qualifications, job level and job tenure) significantly moderate the relationship between the psycho-social variables, conceptualised as self-worth, personality preferences and conflict resolution styles and team cohesion.

Research aim 5: To empirically investigate whether significant mean differences exist between the subgroup of socio-biographical variables (age, gender, race, qualifications, job level and job tenure) that acted as significant moderators between the psycho-social variables,

conceptualised as self-worth, personality preferences, conflict resolution styles and team cohesion, as manifested in the sample of respondents.

Research aim 6: To draw conclusions based on the findings and make recommendations for the enhancement of team cohesion in an organisational context, and for future research based on the findings of the study.

1.4 STATEMENT OF SIGNIFICANCE

The factors that underline the construction of a psycho-social team cohesion model for the workplace appeared varied and complex in nature. Many factors impeded or endorsed the development process of the team cohesion model. A complex range of socio-demographic characteristics (race, gender, age, level of education, job level, tenure) and psycho-social construct variables (self-worth, personality preferences, conflict resolution styles) and how they interacted with team cohesion.

The literature review was the starting point to investigate the relationships between the following:

- Self-worth (as defined by the contingencies of self-worth domains (Crocker *et al.* 2003; Canevello & Crocker, 2017);
- Personality preferences (as defined by the Personality type theory of Jung, 1921, 1959, 1971, 1990; Myers, 1987);
- Conflict resolution styles (as defined by the developer of the instrument, Thomas-Kilmann (1974), quoted by Dunnette & Hough (Eds), 1992); and
- Team cohesion (as defined by Wongpakaran, Wongpakaran, Intachote-Sakamoto and Boripuntakul (2013) within the realistic conflict theory (Muzafer, in Sherif 1958; 2015).

This study proved useful due the relationships found between the three independent variables (self-worth, personality preferences and conflict resolution styles), and the dependent variable (team cohesion). Furthermore, the research results contribute to the body of knowledge and empirical findings on team cohesion that can be generalisable to South African financial organisational contexts.

1.4.1 Potential contribution on a theoretical level

Theoretically, the results of the study make a three-fold contribution.

- Firstly, this study identified the theoretical elements of the psycho-social construct variables, namely, self-worth, personality preferences and conflict resolution styles, in order to develop a team cohesion model.
- Secondly, this study identified the theoretical relationships between self-worth, personality preferences and conflict resolution styles in relation to the development of a team cohesion model.
- Thirdly, the study outlined the socio-demographic characteristics (age, gender, race, level of education, job level and tenure) that influence and significantly moderate employees' team cohesiveness.

1.4.2 Potential contribution on an empirical level

Empirically, the results of the research contributed in the following ways:

The research broke new ground because, to the best of the researcher's knowledge, no previous study has been conducted on the relationships between self-worth, personality preferences and conflict resolution styles. This study contributed to the construction of an empirically tested psycho-social model of team cohesion that can be used to inform employee human resources practices for diverse groups of employees. Significant relationships were found between the variables.

The study provided deeper insight into the moderating effect of socio-demographic variables and the psycho-social construct variables of self-worth, personality preferences, conflict resolution styles and team cohesion. The derived knowledge and drive will be transferred to other research studies and avenues that could yield significant proof to assist with solving the problem of how socio-demographic variables and psycho-social construct variables can predict employees' team cohesiveness.

1.4.3 Potential contribution on a practical level

Practically, the results of the research contributed in the following ways:

Organisation-wide attributes that could enhance team cohesion and effectiveness in the workplace were explored in order for Consulting Psychology, Industrial and Organisational psychologists and Human Resource professionals to develop action plans in relation to team dynamics. The results may potentially inform employee team

cohesion interventions for diverse groups of individuals in other sectors of the South African economy.

The understanding of the influence of socio-demographic characteristics on employees' team cohesiveness were valuable in developing superordinate goals for all teams in the organisation. This information may allow human resources staffing policymakers to proactively recognise the risks of allocating individuals who may not be team players to work teams. The findings can therefore assist management to prevent dysfunctional and conflict-riddled teams in the workplace by continuously monitoring employees' active participation in their allocated workplace teams to enhance team effectiveness and customer-centricity among employees in order to meet and cope with customer demands.

Finally, this research study had a novel and fresh approach to discovering the existing psychological construct variables, such as self-worth and personality preferences, as well as social psychological variables, such as conflict resolution styles and team cohesion. This research study contributed to the body of scientific knowledge in the broader field of social sciences as, to the best of the researcher's knowledge, no similar study has previously been done. This study is unique because it incorporated the relationship dynamics between the antecedents of self-worth, personality preferences and conflict resolution styles, and the outcome of workplace team cohesion, as well as the socio-demographic characteristics (age, gender, race, level of education, job level and tenure) that may potentially influence these relationships. Studies on the relationships of these constructs were limited. This research focused on the development of a psycho-social model of team cohesion in the workplace at a typical financial institution in South Africa.

This research study will promote a better understanding of the psycho-social constructs variables, namely, self-worth, personality preferences, and conflict resolution styles, towards the enhancement and development of employee team cohesion in the workplace.

1.5 THE RESEARCH MODEL

The research model of Mouton and Marais (1994, 1996) served as a framework for this research study. In essence, the model was primarily based on five social science dimensions, namely, the sociological, ontological, teleological, epistemological and

methodological dimensions. According to Mouton and Marais (1994, 1996), the model seeks to investigate the collaborative human activity in which social reality is studied objectively in order to gain a convincing and valid understanding thereof.

Mouton and Marais (1994,1996) described the model as a systems theoretical model with three subsystems which interrelate with each other and the research domain of the specific discipline – in this case Consulting Psychology and Industrial and Organisational Psychology. These subsystems represented the intellectual climate, the market of intellectual resources and the actual research design.

1.6 PARADIGM PERSPECTIVE OF THE RESEARCH

For the purpose of this study, the term ‘paradigm’ was used to refer to the general organising framework for theory and research (Mouton & Marais, 1996). According to Neuman (2011), paradigms outline the definitive boundaries of the research and include, among others, the basic assumptions, key issues, models of quality research and the research methods or techniques for seeking answers. Maree (2009) described a paradigm as a lens or viewpoint through which a researcher views both the obvious and not so obvious principles of reality.

Hergenhahn (1992) further maintained that Kuhn conceptualised the term ‘paradigm’ as a thought pattern in any scientific discipline that defines the following:

- What is the phenomenon to be studied and scrutinised?
- The kind of questions to be asked to get answers from the subject under investigation;
- The logical manner the questions are structured; and
- The manner in which the scientific findings are analysed and interpreted.

Mouton and Marias (1996) asserted that in the broad field of social sciences, a paradigm includes the accepted theories, models, body of research and the methodologies of a specific perspective. For the purpose of this research, the term paradigm is used to refer to the intellectual climate and its meta-theoretical values and beliefs underpinning the theories and models that inform the research (Marais & Mouton, 1996).

1.6.1 The intellectual climate

The constructs relevant to this research study include self-worth, personality preferences, conflict resolution styles and team cohesion. The literature review is presented from the systems theory, chaos theory, eco perspective, ego perspective, social-cognitive paradigm, cognitive behaviouristic-learning paradigm and humanistic paradigm, whereas the empirical study will be presented from the functionalist paradigm.

1.6.1.1 Literature review

According to Meyer, Moore and Viljoen (2008), the humanistic paradigm emphasises the importance of looking at an individual as an integrated whole. The role that individuals display are basically their own inherent potential. They have free will and are basically good and any behaviour to the contrary can be attributed to environmental influences (Hiemstra & Brockett, 1994). The humanistic paradigm is appropriate for this research, as the assumption is made that employees have the capacity and autonomy to decide how they relate to their colleagues.

According to Hjelle and Ziegler (1981), the humanist approach is based on the individual free will that centres on a human being consistently seeking improvement and survival as part of self-actualising and the human potential for always doing good. Furthermore, Hjelle & Ziegler (1981) maintained that classical personality psychologist Rogers viewed every individual as possessing the innate potential to accomplish personal goals, wishes and desires in life. A fully functioning individual is well adjusted and balanced in interacting with others.

Pettijohn (1991) asserted that Maslow and Rogers, the leading theorists in the humanistic paradigm, referred to the 'third force' in Psychology as it essentially presented an alternative paradigm to the behaviourist and psychoanalytic school of psychology.

Meyers and Wong (1988) presented the following tenets of the humanistic approach:

- Individuals primarily function as an integrated whole or 'gestalt'.
- Individuals possess higher spiritual processes, evident in their innate potential for growth and self-actualisation.
- Every individual by nature is good and positive.

- Every individual decision-making role that occurs in their conscious processes is important.
- All individuals are the architect of all their behaviours and creative abilities.
- A significant criterion used to describe a fully functioning individual is determined by their psychological wellness.

The social-cognitive paradigm is based on the social-cognitive theory of Bandura (1986). It is an overarching theoretical paradigm that explains the intricate relationships among an individual's self-regulation, interpersonal relations, conflict handling and performance (Cooper & Lu, 2015). The paradigm assumes that individuals learn from others. The role of self-referent thinking is found to be guiding employee's motivation and behaviour. The social-cognitive theory has been applied to a wide array of psycho-social domains (Bandura, 1986, 1989, 1991, 1997, 2001; Cooper & Lu, 2015). The Bandura social-cognitive theory (1986) distinguished several classes of outcome expectations, such as the anticipated social (for example, approval from others) and self-evaluative (for example, self-satisfaction) outcomes that may enhance and foster team cohesion in the workplace (Cooper & Lu, 2015).

Self-efficacy is the aspect of self-worth that relates to the employees' reasoning, actions, and cognitive structures that reflect their view in dealing with difficult situations (Bandura, 1986). Consequently, self-efficacy is the learned capability obtained through observation to handle difficult situations, and the belief that one can be successful and experience low levels of anxiety (Sharf, 2012). Self-efficacy lies at the heart of casual processes and purposive behaviour (Bandura, 1991 & Cooper & Lu, 2015).

The ego perspective and eco-system are also related to self-worth. Canevello and Crocker (2017) maintained that self-image goals are part of the ego perspective, while the eco perspective was driven by compassionate goals. The chaos perspective is part of the systems paradigm and is linked to all the psycho-social construct variables.

The chaos perspective describes the self-organising systems and team development stages as involved with the transition through growth crisis. The chaos theory originated from the classical systems paradigm. The system is a whole by virtue of its interrelated parts, any change from one part or sub-system will invariably affect or influence the system.

Hodge, Anthony and Gales (1996) provided the following assumptions about the systems paradigm:

- The organisation as an open system interacts with the external environment
- It consists of a set of interrelated and interdependent parts
- It consist of inputs, processes and outputs
- Constantly moves towards growth and expansion
- It engages in the processes of production, maintenance and adaptation to its functioning

The open systems are thematically related to the constructs of self-worth and team cohesion.

The basic tenet of social-cognitive theory is the view that human behaviour is primarily controlled by the mutual interacting force of the individual through their cognitive processes and social situations in the external environment (Cooper & Lu, 2015).

According to Bergh and Geldenhuys (2013), the cognitive-behaviouristic paradigm is based on the behaviourist theorists that hold the view that personality preferences and human behaviour are shaped by the influence and consequences of learning. The proponents of this paradigm include, amongst others, Rotter (1954), Mischel (1973) and Bandura (1991). The premise is that human behaviour can be the result of other forms of learning, such as modelling. Furthermore, human behaviour may also be influenced by certain cognitive processes.

Bandura (2001) maintained that human behaviour can be explained in terms of continuous reciprocal interactions between cognitive, behavioural and environment influences. In other words, behaviour is primarily learned through observation of or perceptions regarding the environment Sharf (2012) concurred that human behaviour is shaped through reinforcement and extinction. Skinner (1953), the father of behavioural theory, examined environment influences through operant conditioning. In essence, operant conditioning focuses on the antecedents and consequences of human behaviour, using both positive and negative reinforcement in shaping new learned behaviour.

The cognitive-behaviouristic learning paradigm is based on the scientific principles of behaviour, such as classical and operant conditioning, as well as observational learning. This paradigm assumes that individuals learn by observing others

(modelling), through reinforcement, extinction and the shaping of behaviour (Sharf, 2012). In contrast, Skinner (1953) used operant conditioning to examine how environmental influences affect or shape the behaviour of individuals. Operant conditioning focuses on the antecedents and consequences of behaviour and uses positive and negative reinforcement in changing or learning new behaviour.

1.6.1.2 The empirical study

The empirical research is presented from the functionalist paradigm. The basic assumptions of the functionalist paradigm are the following, as according to Morgan (1980):

- The functionalist paradigm in its basic orientation is pragmatic and regulative.
- The generation of useful empirical knowledge is primarily concerned with the understanding of the broader society.
- The broader society has a concrete, real existence, and a systemic character to establish a well-regulated state of affairs.
- At its core the functionalist perspective encourages a social theory approach centred on an understanding of the role of human beings in a given society.
- Human behaviour is construed contextually within a real world of concrete and tangible social relationships

1.6.2 The market of intellectual resources

According to Mouton and Marais (1996), the market of intellectual resources refers to the collection of beliefs that have a direct bearing on the epistemic status of scientific statements. There are two major types of market of intellectual resources that can be delineated, namely theoretical beliefs about the nature and structure of phenomena, and methodological beliefs concerning the nature and structure of the research process. For the purpose of this research, the focus of the study will be the theoretical models, conceptual descriptions about self-worth, personality preferences, conflict resolution styles and team cohesion. The central hypothesis, the theoretical and methodological assumptions will be discussed next.

1.6.2.1 Meta-theoretical statements

The meta-theoretical assumptions represent an important category of assumptions underlying the theories, models and paradigms of the research. Babbie and Mouton (2009) maintained that meta-theoretical statements are philosophical views that reflect

the nature of a particular discipline and relate to the research questions within a framework. According to Babbie and Mouton (2009), these statements provide guidelines on how integration with theory can be achieved, as the researcher must adhere to the parameters as set out by the theoretical framework and context. For the purpose of this study, the meta-theoretical statement will be applied to the broader field of Psychology and the relevant sub-fields of Industrial and Organisational Psychology, Consulting Psychology, Social Psychology, Personnel Psychology and Psychometrics.

Coetzee and Schreuder (2010) have defined Industrial and Organisational Psychology as the scientific study of adults within a work environment, and as such it is primarily concerned with the application of psychological principles, theory and research in the work environment. Bergh and Geldenhuys (2013) asserted that the objective of Industrial Psychology is to establish, maintain and improve organisational functioning through the understanding of human behaviour and interactions.

Personnel Psychology is the sub-field of Industrial and Organisational Psychology that focuses on individual differences in the workplace. The sub-field provides understanding of the factors that influence the attraction, selection, placement, retention, performance, development, commitment and engagement of individuals in the workplace (Cartwright & Cooper, 2008). Personnel Psychology focuses on the psychological elements of individual employees (Coetzee & Schreuder, 2010).

According to Lowman (2016), Consulting Psychology is the specialised scientific discipline fundamentally focused on advising organisational clients how to make the workplace more functional within the three distinctive overlapping levels, namely, individuals, teams and the broader organisations. The two major domains of the discipline's knowledge are the effective assessment of issues and the subsequent interventions.

Psychometrics is the branch of Psychology that focuses on the principles and practices of psychological measurement that relate to the development and standardisation of psychological tests and statistical constructs (Coetzee & Schreuder, 2010). In this study, questionnaires are used to measure individuals' self-worth, personality preferences, conflict resolution style and team cohesion.

1.6.2.2 Conceptual descriptions

The following conceptual descriptions will serve as points of departure for discussions in this research study:

(a) Self-worth

For the purpose of this study, the construct self-worth was defined as “The extent to which a person has worth, excellence, value, usefulness, or is held in esteem, as indicated when other persons show such behaviours toward that person as overtly supporting, rewarding, admiring, saving, defending, and/or honouring.” (Harcum & Rosen, 1994, p. 102). The individual motivational orientation or goals are two-fold: Firstly, the compassionate goals are characterised as non-zero-sum (win-win situation) during interpersonal relations. Secondly, self-image goals are characterised as zero-sum (win-lose) during interpersonal relations (Canevello & Crocker, 2017).

(b) Personality preferences

For the purpose of this study, the term ‘personality preferences’ was defined as the dominant and conscious attitude to act or react in a characteristic direction, firstly by observing one’s outer world, and secondly, by assigning meaning to each experience one is faced with. This definition is based on work by Jung (1921, 1971, 1990), the theory of psychological types, and Briggs and Briggs-Myers’ (1998) theory of personality preferences.

(c) Conflict resolution styles

Dunnette and Hough (1992) maintained that the Thomas-Kilmann (1974) conflict resolution model was based on the individual’s strategic intentions plotted along the vertical and horizontal dimensions of assertiveness and cooperativeness. These five strategic intentions are classified as competing, avoiding, compromising, accommodating and collaborating.

According to Dunnette and Hough (1992), individuals who are competing are more concerned with achieving their goals, than concerned about others. This leads to a win-lose situation. The direct opposite of this intention is seen where individuals are so accommodating of others’ concerns that it is at the expense of their own concerns. This leads to a lose-win situation. The third intention is compromising, which is an effort from both parties to satisfy each other, by mutually giving away something and holding

onto something in return for the other's concern. The fourth intention is collaborating, which represents each party striving to optimally satisfy each concern. This leads to a mutually desired win-win situation. The last intention is avoidance, when each party withdraws and ignores each other's concern. This leads to a lose-lose situation, as neither party benefits from the impasse.

(d) Team cohesion

Lewin, Lippit and White (1939), as cited by Davenport (2013), defined team cohesion as the willingness of team members to stick together. Davenport (2013) found that team cohesiveness manifests itself among team members in stronger interpersonal relationships and where personal individual satisfaction is experienced.

James (1998) postulated that team cohesion is characterised by the members' mutual liking, friendliness, cooperation and motivation in the execution of team tasks. According to Veeraraghavan, Kellar, Gawlick and Morein (1996), as quoted by Davenport (2013), the Group Cohesion Scale was developed to measure the level of cohesiveness among team members with respect to dimensions such as, interaction, communication, retention, decision making and members' vulnerability. The definition formulated by Wongpakaran *et al.* (2013) was adopted and found more relevant as it defined team cohesion as the acceptance, attraction, liking, sharing of personal sensitive information, understanding of team tasks and goals, leading to the team cohesion-related disposition of cohesiveness and engaged.

Table: 1.1 below depicts the four measuring instruments, namely, Contingencies of Self Worth Scale (CSWS), Myers-Briggs Type Indicator (MBTI), Thomas-Kilmann Conflict Resolution Scale (T-K CRI) and Group Cohesion Scale (GCS), and their core theoretical models.

1.6.2.3 Central hypothesis

The central hypothesis of this research was formulated as follows:

There is an acceptable empirical psycho-social model of team cohesion based on the SEM goodness fit statistical indices.

Table: 1.1
 Constructs, core aspects, measuring instruments and theoretical models of the research

Construct	Core aspects to be measured	Measuring instruments 165 questions	Core theoretical model
Self-worth	<ul style="list-style-type: none"> ▪ Religion ▪ Family values ▪ Virtues ▪ Competition ▪ Work competence ▪ Pleasing others ▪ Physical appearance 	Contingencies of Self-Worth Scale (CSWS) (Crocker, 2002) 35 Questions	Eco-system interpersonal perspective – derived from systems theory – based on the premise that individual needs and desires are part of a larger system of interconnected people (Crocker, 2002).
Personality preferences	<ul style="list-style-type: none"> ▪ Extraversion – Introversion ▪ Sensing - Intuition ▪ Thinking - Feeling ▪ Judging – Perceiving 	Myers-Briggs Type Indicator (MBTI) (2009) 93 Questions	Jung’s theory of personality types/Preferences (Briggs & Briggs-Myers, 1998).
Conflict resolution styles	<ul style="list-style-type: none"> ▪ Competing ▪ Avoiding ▪ Compromising ▪ Accommodating ▪ Collaborating 	Thomas-Kilmann (1974) conflict mode instrument (Dunnette & Hough (Eds.), 1992) 30 Questions	The managerial grid of Blake and Mouton (1964) identified five different approaches to manage interpersonal conflict. Dual concern theory and descriptive conflict management theory, based on short-term contingency theory (practical and realistic) focusing on the here and now, and long-term normative theory (idealistic or visionary) focusing in building desirable futures (Thomas, 1992).
Team cohesion	<ul style="list-style-type: none"> ▪ Cohesiveness ▪ Engaged 	Group Cohesiveness Scale (GCS) (Wongpakaran, Wongpakaran, Intachote-Sekamoto & Boripuntakul, 2013) 7 Questions	Chaos theory describes self-organising systems and team development stages as involved in the transition through a growth crisis (Wongpakaran, Esrock, Leszcz & Lancee, 2006) and the social psychology model of intergroup conflict (Muzafer, 1967, 2015).

1.7 RESEARCH DESIGN

According to Mouton and Marais (1994), the aim of research design is mainly to plan and structure the research study in such a manner that the external and internal validity of the research findings are maximised. Tredoux and Durrheim (2013) asserted that the research design provides a framework for the research in that it lays out the plan for data collection and analysis to achieve the research purpose. The types of research design that were considered most appropriate for the current study will be presented below, followed by a discussion of aspects around validity and reliability.

1.7.1 Exploratory research

According to Mouton and Marais (1996), an exploratory study is intended to gather information from a relatively unknown field. The main aim is to gain new insights, and to establish new concepts and new constructs as part of the broader establishment of research priorities.

1.7.2 Descriptive research

According to Salkind (2012), descriptive studies are concerned with describing the characteristics of existing phenomena by using either narrative or type descriptions. Its purpose is to systematically clarify the relationships between variables in the research domain.

1.7.3 Explanatory research

According to Mouton and Marais (1996), explanatory research goes further than indicating existing relationships in a causal relationship model. It is important for the researcher to also indicate and explain the direction of these relationships. In the research study, the empirical study investigated the relationship between the self-worth, personality preferences and conflict resolution styles of a group of subjects. The end result of the current study is to formulate a conclusion among the constructs self-worth, personality preferences, conflict resolution styles and team cohesion, and finally to develop and validate a team cohesion model.

The socio-demographic characteristics (age, gender, race, level of education level, job level and tenure) were analysed and conclusions were drawn regarding their mediating influence on self-worth, personality preferences, conflict resolution styles and team cohesion.

1.7.4 Validity

According to Mouton and Marais (1996), the research study has to meet the inherent requirement of internal and external validity. For research to be internally valid, the constructs has to be measured in a valid manner, and the data gathered must be both accurate and reliable. Foxcroft and Roodt (2013) concurred that validity refers to the interaction of the instrument and the sample. This entails that the instrument measures what it is supposed to measure (Salkind, 2012). In this study, the validity of the instruments was confirmed by means of a confirmatory factor analysis.

1.7.4.1 Validity with regard to the literature

In the empirical research, validity was ensured through the administration of appropriate and standardised measuring instruments. Furthermore, the literature review was presented systematically in a logical and scientific manner. Reference will be made to relevant theories and models.

1.7.5 Reliability

Reliability was ensured by structuring the research model in such a manner that confusing and irrelevant variables were limited. According to Salkind (2012) and Mouton and Marais (1996), the central consideration of reliability is to ensure that the collection of data is reliable and that it consistently yields the same results. Reliability in the literature was addressed by using existing literature sources, theories and models that are available to researchers (Foxcroft & Roodt, 2013). Reliability of the empirical study was ensured through the use of a representative sample of the identified population. The data gathered was used to test the reliability of the instruments by means of the Cronbach's alpha test.

1.7.6 The unit of research

The individual subject's behaviour was the unit of analysis. Mouton and Marais (1996) stated that the researcher focuses on the attributes, characteristics, preferences and orientations of individual behaviour. The focus and purpose of the research study were on the relationships between self-worth, personality preferences, conflict resolution styles and team cohesiveness.

1.7.7 The variables

Salkind (2012) maintained that there is a distinct difference between an independent variable and a dependent variable. An independent variable is explained as a variable with values that are not problematic and that is the presumed cause of the dependent variable. The dependent variable is assumed to be affected by the independent variable. In terms of the research study, the criterion of the group cohesiveness instrument is the dependent variable which is affected by the independent variables, and the criterion data of self-worth, personality preferences and conflict resolution styles are the independent variables, and thus predictive to the dependent variable.

1.7.8 Delimitations

The research study was limited because it focused on the development of a team cohesion model, based on self-worth, personality preferences and conflict resolution styles. Limited research had been conducted in the current field of study. Furthermore, self-worth as in the Crocker et al. (2003) Contingencies of self-worth domains, personality preferences measured by the MBTI, conflict resolution styles measured by the Thomas-Kilmann (1974) conflict mode instrument, and team cohesion measured by the Group cohesive scale are basically self-reporting instruments. In the process, reliability and validity needed to be tested.

Terre Blanche, Durrheim and Painter (2006) maintained that scientific sampling techniques need to be adhered to. In this research study, the sample participants were drawn from a range of different ages, genders, race, levels of education, job levels and different tenures in the financial institution.

1.8 RESEARCH METHOD

The research study was conducted in two phases, each consisting of different steps.

1.8.1 Phase 1: Literature review

The literature review consisted of a discussion of self-worth, personality preferences and conflict resolution styles as being related and influencing workplace team cohesion. The steps as listed below were followed in the literature review

Step 1: Conceptualising the meta-theoretical context of the study: Development of a psycho-social model for team cohesion.

This phase conceptualised the workplace team cohesiveness and psycho-social attributes and personality preferences relevant to the turbulent and ever-changing and competitive employment context.

Step 2: Conceptualising the theoretical constructs of the study.

This phase conceptualised the constructs of self-worth, personality preferences, and conflict resolution styles and attributes from a theoretical perspective, and critically evaluated the implications for team cohesiveness. The influence of socio-demographic characteristics on these constructs was also be conceptualised.

Step 3: Conceptualising the theoretical relationship between psycho-social variables (self-worth, personality preferences and conflict resolution styles and team cohesiveness attributes).

This phase conceptualised the theoretical elements of the contingencies of self-worth domains and provided an integration of the hypothetical theoretical relationship between the constructs of self-worth and team cohesion attributes.

Step 4: Conceptualising and integrating the implications of the relationship between psycho-social variables (self-worth, personality preferences and conflict resolution styles) and workplace team cohesion attributes.

This included a discussion of the relationship between psycho-social variables (self-worth, personality preferences and conflict resolution styles) and team cohesion attributes, and its implications for team effectiveness and productivity for the discipline of Industrial and Organisational Psychology and Consulting Psychology.

Figure 1.1 provides an overview of the steps that comprised Phase 1.

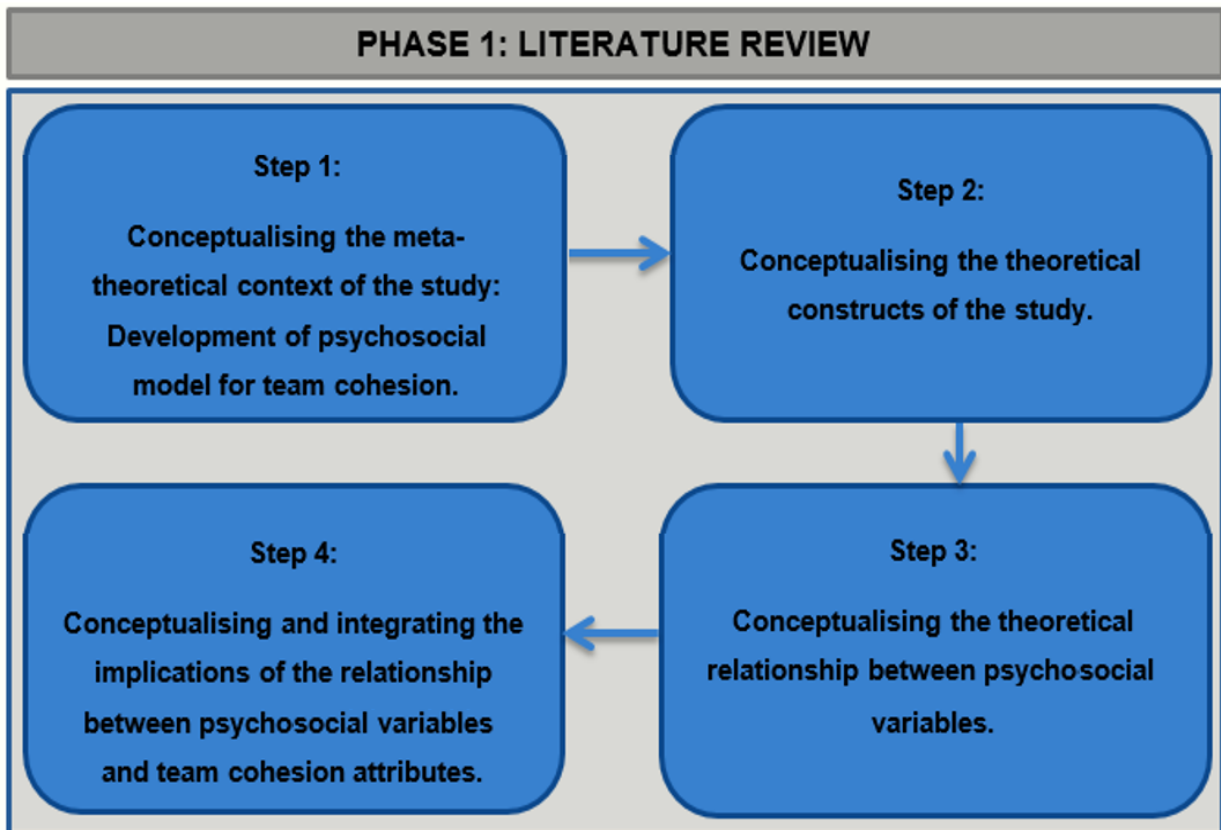


Figure: 1.1
Overview of Phase 1

1.8.2 Phase 2: Empirical study

This study was conducted at a financial institution in South Africa. In view of the context and the aim of the study, the empirical study involved the steps as depicted in Figure 1.3 (to follow).

Step 1: Choice, motivation and determination of psychometric instruments

Three psychometric instruments were used to measure the independent variables, namely, the Contingencies of Self-worth Scale (CSWS), Myers-Briggs Type Indicator (MBTI), and Thomas-Kilmann conflict mode instrument. The dependent variable was measured using the Group Cohesive Scale.

A questionnaire was developed to measure the socio-demographic characteristics of the participants. This questionnaire elicited socio-demographic information in the categories of age, gender, race, level of education, job level and tenure.

Step 2: Description of the sample

The population included employees at the financial institution. The total staff complement at the time of the research study was standing at 1 500 employees. A total of 500 employees were randomly sampled to participate in the research study. Strict guidelines, as provided by Cohen (1992) and Terre Blanche, Durrheim and Painter (2006), were followed.

Step 3: Ethical considerations and administration of the psychometric instruments

Conducting any scientific research study requires the adherence to ethical standards, moral principles and a high level of professionalism (Rallis, 2009). Terre Blanche *et al.* (2006) concurred that following ethical standards, including protecting the welfare of the research participants, is essential.

The researcher applied for and was granted permission and ethical clearance to conduct the study from the University of South Africa's College of Economic Management Sciences (CEMS) ethics committee and the Department of Industrial and Organisational Psychology ethics committee, respectively.

The confidentiality of the research participants was maintained as the employees received the invitation to participate in the study via an internet link and they used the same link to submit their responses. All responses and data were managed by the statistician. The researcher ensured that participation in the study was voluntary throughout the duration of the research process.

Step 4: Capturing of criterion data

The participants' responses to each of the items in the five questionnaires (including the socio-demographic questionnaire) were captured in an electronic database which was converted to an SPSS data file. To ensure the security and authenticity of the data, the appointed statistician was the only person who captured the data onto the SPSS platform for further statistical analyses.

Step 5: Formulation of the research hypotheses

The research hypotheses and research questions were formulated in order to achieve the objectives of the study. This prediction was based on core theoretical foundations, previous research, or logic. The hypotheses are summarised in Table: 4.9, Chapter 4. The reporting and interpreting of the results in Step 7 are directly linked to Table: 4.9.

Step 6: Statistical processing of data

The statistical procedure that was relevant to this study, as depicted in Figure 1.2, was conducted in three stages, namely, Stage 1: Descriptive statistical analysis (means, standard deviations, Cronbach's Alpha coefficients, kurtosis, skewness and frequently data and test for assumptions), Stage 2: Correlation analysis (Bi-variate correlations) and Stage 3: Inferential statistical analysis (Canonical correlation analysis, Multiple regression analysis, Structured equation modelling (SEM), Hierarchical moderated regression analysis, and tests for significant mean differences).

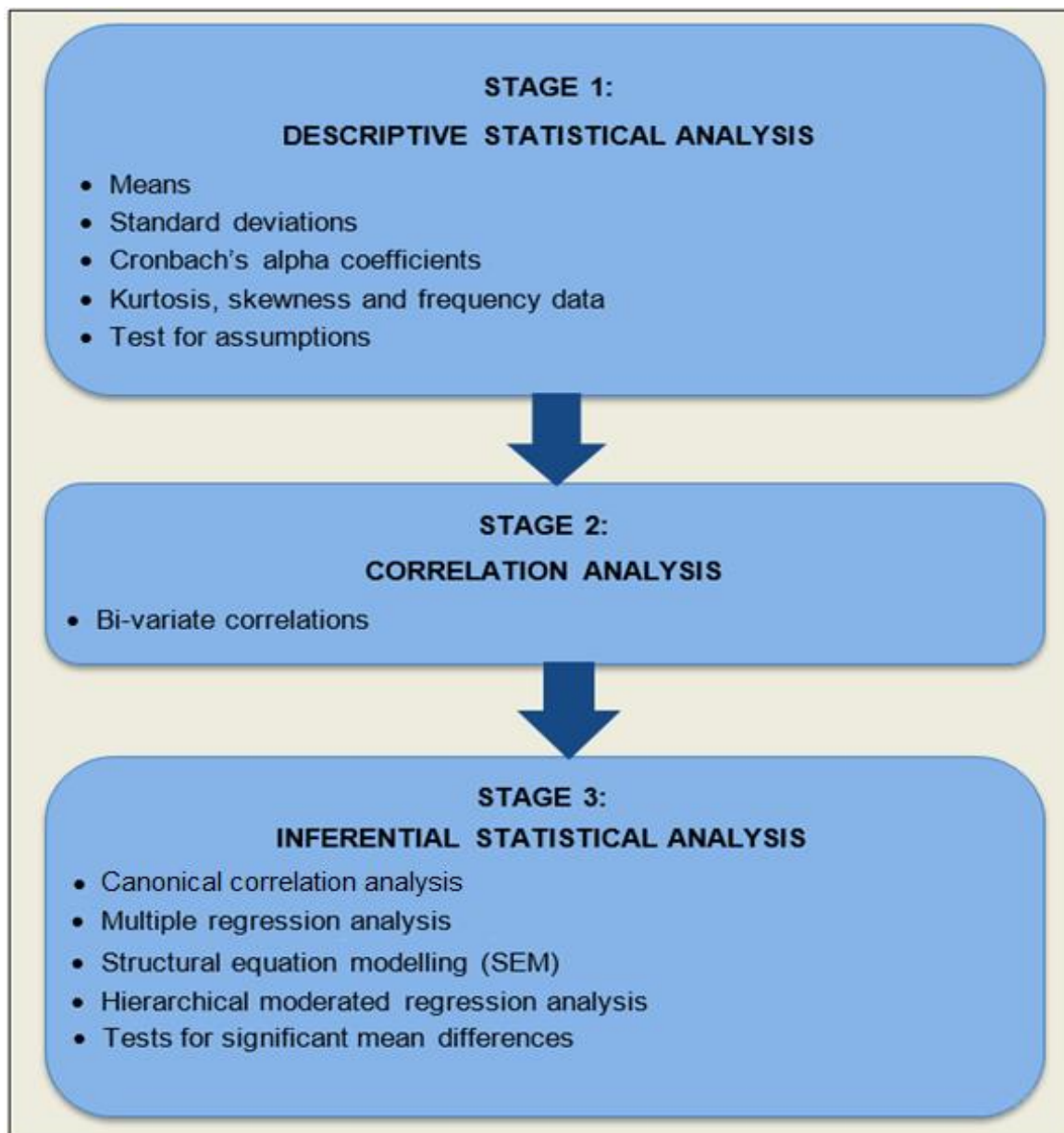


Figure: 1.2
Overview of Stages 1 to 3

Step 7: Reporting and interpreting the results

This step consisted of the following four stages, as described below.

Stage 1: Descriptive statistical analyses

Longest (2012) maintained that descriptive statistics data can be logically summarised into centrality (means, mode and median), or dispersion (range, variance and standard deviation), and shape (skewness and kurtosis).

Stage 2: Exploratory Factor Analysis (Psycho-social variable instruments)

According to Reinhard (2006), exploratory factor analysis is the statistical technique that empowers researchers to find the underlying characteristics of variables. The technique is more useful in statistical analyses where the analyses involves many measurement instruments which are highly inter-correlated and interconnected.

Stage 3: Correlational analysis

The correlational analysis is a statistical measure that indicates the strength and direction of the association between variables (Tredoux & Durrheim 2013) In the research study, the Spearman correlation analyses were conducted to evaluate the numerical value for the degree of correlation between the variables pertinent to the study.

Tredoux and Durrheim (2013) further provided guidelines to counter the probability of a Type I error. To counter the probability of a Type I error, they suggested to set the significance value at a 95% confidence interval level ($p \leq .05$). In the research study, the significance value was set at 95% confidence interval level ($p \leq .05$), and $r \geq 0.30$ ≤ 0.49 (medium effect), and $r \geq 0.50$ (large effect). Cohen (1992) posited the 95% confidence interval level as being practically significant.

Stage 4: Inferential (Multivariate) Statistics

The multiple regression analysis is the most widely used multivariate methods to study and measure the impact of separate and collective contributions of several independent variables to the variance of the dependent variables. (Terre Blanche *et al.*, 2006). In addition, T-tests and ANOVAs and SEM will be performed to measure for significant differences among the variables. SEM is a statistical technique that uses various types of model to depict relationship among the studied variables with the goal

of providing the quantitative test of a theory hypothesised by a researcher (Schumacker & Lomax, 2004).

The SEM technique determined the elements of the empirically manifested model to assess the fit between and among the empirically manifested structured model (Kline, 2012).

SEM is the multivariate procedure that combines multi-regression, path analysis and factor analysis, in order to examine a pattern of relationships among a set of variables (Whitley & Kite, 2013).

Step 8: integration of the research findings

After the reporting of data, the results of the empirical research was integrated into the findings of the literature review.

Step 9: Conclusions, limitations, and recommendations

The last step in the empirical study consisted of drawing conclusions, highlighting the limitations of the research study and making recommendations, based on the findings and conclusions.

The steps of the empirical study (Phase 2 of the research study) are graphically summarised in Figure 1.3 below.

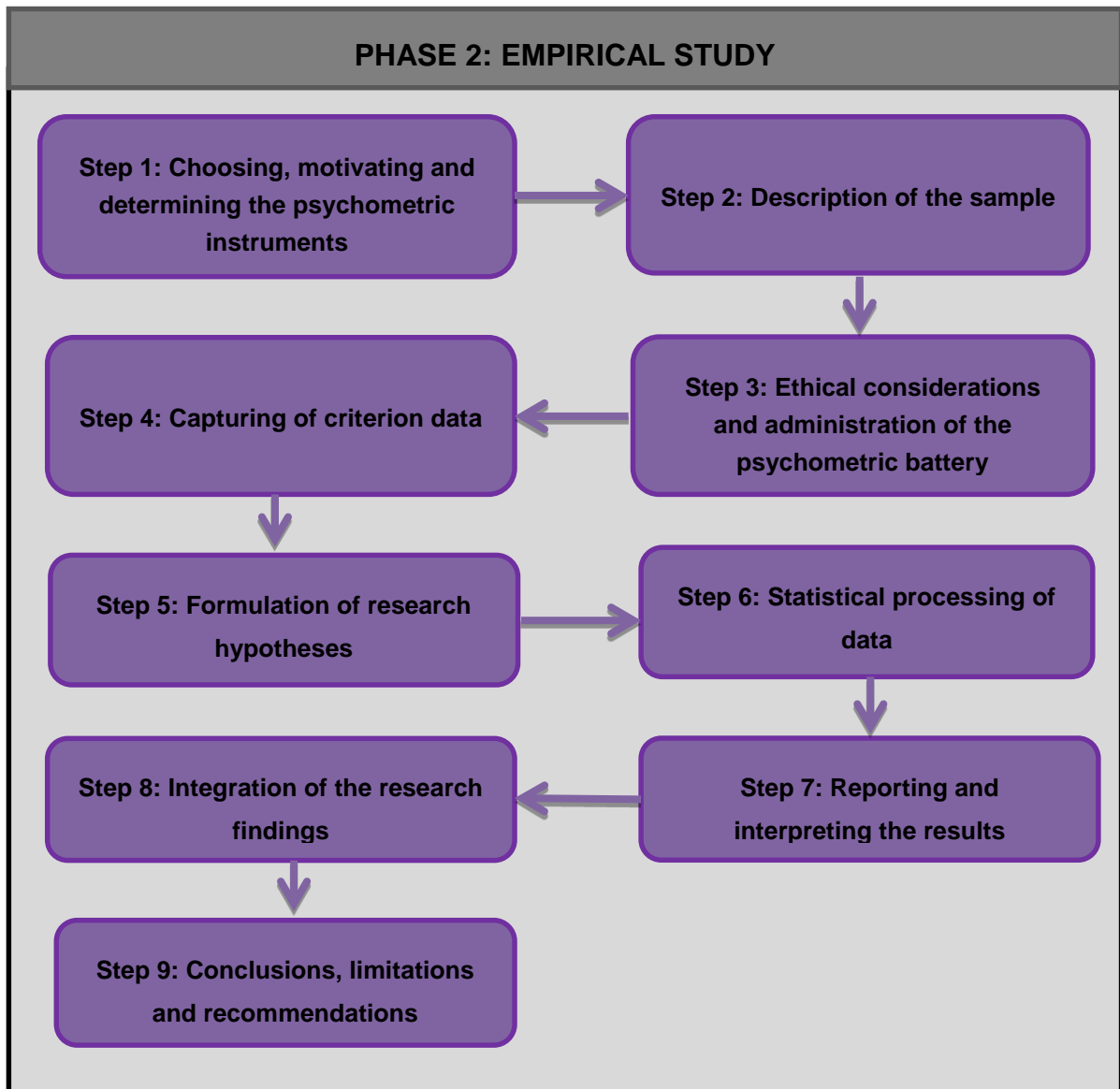


Figure: 1.3
Overview of Phase 2

1.9 CHAPTER DIVISION

The chapters of the research study are as follows:

Chapter 1: Introduction and background

This chapter provided an introduction and background to the research study.

Chapter 2: Meta-theoretical context of the study and the conceptualisation of self-worth and personality preferences variables

The aim of this chapter is to contextualise the psychological disposition construct variables of self-worth and personality preferences by highlighting the historical trends pertaining to the conceptual foundation affecting individual self-worth, followed by the

discussion of personality preferences. Finally, the implications for Consulting Psychology and Industrial and Organisational Psychology regarding the enhancement of team cohesion practices are presented.

Chapter 3: Conceptualisation of conflict resolution styles and team cohesion

The aim of this chapter is to conceptualise the social psychological disposition construct variables of conflict resolution styles and team cohesion by highlighting the historical resolution of the inherent interpersonal conflict, followed by a discussion of the team cohesion construct variable. Finally, the implications for Consulting Psychology and Industrial and Organisational Psychology for the enhancement team cohesion practices are presented.

Chapter 4: Research methodology

The aim of this chapter is to describe the empirical research. Firstly, the purpose of the empirical research is given, including an overview of the population and sample of the research study. The measuring instruments are discussed and the choice of each justified, followed by a description of the data gathering and processing that was followed during the study. Finally, the research hypotheses are presented.

Chapter 5: Research results

The research results are presented in the three stages as depicted in Figure 1.2 above, namely, descriptive statistical analysis, correlation analysis and inferential statistical analysis. This chapter discusses the statistical results and various statistical procedures to test the hypotheses, which are integrated with the empirical research findings and literature review. Finally, the chapter presents a summary of the research results and the implications thereof for Consulting Psychology and Industrial and Organisational Psychology.

Chapter 6: Conclusions, limitations and recommendations

This final chapter integrates the results and draws conclusions. The limitation of the study are explained and recommendations are made for Consulting Psychology and Industrial and Organisational Psychology. Finally, the chapter ends with concluding remarks to integrate the research and provides an evaluation of the value added by the research project.

1.10 CHAPTER SUMMARY

The background to and motivation for the research, the aim of the study, paradigm perspectives, the theoretical research, the research design and methodology, the general research question and the research method were all discussed in the chapter.

The motivation for this study was based on the fact that there are currently limited team cohesion model to measure the psycho-social variables of employees at financial institutions. The research investigated pertinent relationship dynamics, the interrelationships and the overall relationship between self-worth, personality preferences and conflict resolution styles (independent variables) and team cohesion (as dependent variable) The research contributed to the body of knowledge for Consulting Psychology, Industrial and Organisational Psychology, and Human Resources Practitioners pertaining to effective practices in allocating employees into working teams, and after organisations' mergers and acquisitions. In the next chapter, the psychological constructs of self-worth and personality preferences will be discussed.

CHAPTER 2: SELF-WORTH AND PERSONALITY PREFERENCES

This chapter addresses the first literature aim, namely to explore psychological variables conceptualised as self-worth and personality preferences from a theoretical perspective by means of theoretical models available in the literature. Firstly, the conceptual and paradigm foundations of self-worth, the models of self-worth, factors influencing self-worth and socio-biographical variables will be discussed. Secondly, the conceptual foundations of personality construct will be discussed by means of theoretical models in the literature, the attitudes and functions of consciousness, Jung's theory of personality types, and the Myers-Briggs type indicator (MBTI). The chapter concludes with a discussion of the implications for both Consulting Psychology, and Industrial and Organisational Psychology practices regarding self-worth and personality preferences.

2.1 CONCEPTUALISATION OF SELF-WORTH AND PARADIGM FOUNDATIONS

According to Canevello and Crocker (2017), the self-worth construct is founded on the eco-system interpersonal perspective, which is derived from the classical system theory. It is based on the premise that individual team members desire to be part of a larger system, compromising, supporting, responsive and being interconnected with others.

The basic assumption of the eco-system interpersonal perspective is that individuals are social creatures that need to belong, to establish social connections, and possess a pervasive drive to foster lasting quality relationships. They are motivated by showing concern for others' well-being with the postulation that what is good for self is also good for team members (Canevello & Crocker, 2017). The greater an individual's level of self-worth, the stronger the team member's commitment to achieve the team goals and objectives (Sluss, Ashforth & Gibson, 2012). Team members with a low level of self-worth lack confidence and feel inferior and will subsequently fail to achieve anything within the team (Baumeister, 1997; Coetzee & Potgieter, 2014).

At the core of the eco-system interpersonal perspective as postulated by Canevello and Crocker (2017), are compassionate goals shared by team members. These compassionate goals are characterised by individual team members being supportive, constructive and responsive to each other. Members are construed as collaborators working together to achieve their mutual interpersonal goals.

From the foregoing assumptions it can be deduced that in the eco-system perspective, individuals in the team are not worried about getting their needs met, but are committed to making others feel at ease and are being less competitive. They strive to be supportive and ensure that their behaviour is not harmful to others in fostering and enhancing the sense of belonging in the team. The researcher is of the view that a team's compassionate goals can be linked to Thomas-Kilmann's collaborating, accommodating and compromising conflict resolution styles.

Covington and Berry (1976) conceptualised self-worth as being abstract and is generally understood to refer to self-esteem, self-respect and personal acceptance, as depicted in Figure 2.1 below.

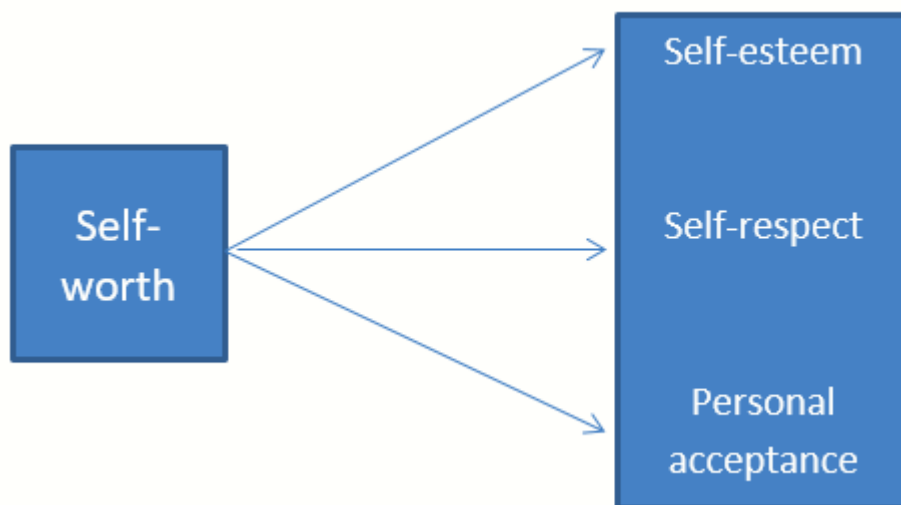


Figure: 2.1
Conceptualisation of self-worth

Crocker and Knight (2005) maintained that self-worth is what individuals believe they need to become or do to have value as human beings. The individuals' ongoing pursuit of self-regulated and self-validated self-worth affects their satisfaction in meeting their fundamental needs of establishing relationships and becoming autonomous. However, Mruk (2006) asserted that the founding father of psychology, William James (1890),

postulated that self-worth was related to self-concept as a ratio of success and a sense of well-being. Achievement and success have a positive effect on feelings of happiness, hence Katz (1993) and Brummelman, Crocker and Bushman (2016) explained self-worth as individuals' feelings emanating from their personal evaluation of self. Accordingly, it is the researcher's view that self-esteem is the component of self-worth.

According to Coetzee (2008) and Crocker and Canevello (2016), the term self-esteem is used to describe the individual personal value or overall sense of self-worth. It is the general personal feeling about one's self-image. Individuals with a high sense of self-esteem are more likely to experience high motivation levels and to have confidence in themselves.

In essence self-worth, according to Branden (1994) and Bandura (2006), refers to the individual's disposition to experience personal worth as a person, to competently cope with fundamental life challenges, and to express that one is worthy of happiness. The term self represents the individual's innate love and ability to love others (Garcia, Watson, Cunningham, Leary & Chen, 2015).

According to Crocker, Brook, Niiya and Villacorta (2006), contingencies of self-worth are domain-specific and fall along a continuum from internal to external factors. These contingencies are fundamentally self-regulatory. This implies that individuals will feel good when they conclude that they have value and worth. The high feelings of self-worth are regarded as a sign of psychological health and as a key to happiness and success. On the other hand, individuals with low feelings of self-worth regard themselves as being worthless and having no value. Crocker and Knight (2005) maintained that contingencies of self-worth are both sources of motivation and areas of psychological vulnerability.

Earlier studies by Crocker and Wolfe (2001) found that when individuals perceived good and unpleasant events in the domains of contingent self-worth it would either temporarily raise or lower their feelings of self-worth. From this assertion it can be deduced that Crocker and Wolfe (2001) meant that individuals' success in the domains of contingent self-worth would allow them to avoid the emotional lows that are linked to failure in particular domains. This implies that contingencies of self-worth domains regulate their behaviour, and individuals over time invest their feelings of self-worth in the chosen domains of self-worth. McDavid, McDonough and Smith (2015) concurred

with Crocker and Wolfe (2001) and Crocker and Canevello (2016) that self-worth is associated with either negative lower levels of feelings or positive higher levels of cheerfulness and motivation.

Crocker and Park (2004) argued that individuals' short-term and long-term goals are shaped by contingencies of self-worth, and manifests in their endeavours to prove that they are a success and not a failure in the domains of self-worth, because this self-validation makes them feel worthy and valuable. The result of this is that in situations where individuals are more likely to experience failure, they will disengage from the tasks, rather than suffer the loss of self-worth that normally accompanies failure in the domains of self-worth. In other words, individuals will use defence mechanisms, such as making excuses or blaming others, to avoid the threat of harm to their feelings of self-worth should they fail. O'Driscoll and Jarry (2015) concurred that contingencies of self-worth are specific domains through which individuals base their self-worth, as they either pursue success or avoid failure in relation to domains which they associate with their self-worth.

Crocker, Luhtanen, Cooper and Bouvrette (2003) found that contingencies of self-worth shaped individuals emotions, thoughts and behaviour. Feelings of self-worth are multi-dimensional in nature, hence throughout the individuals' lifespans they would be based on varying levels of significance to different contingencies of self-worth domains, leading to their feelings of self-worth fluctuating over time. (Crocker & Knight, 2005; Humphrey, 2004).

Horberg and Chen (2010) asserted that self-worth should be measured according to the preference the individual attaches to domains or contingencies important to them. The individual then adopts a domain on these contingencies of self-worth that they themselves or significant others want them to excel in. It can be deduced from the above that the individual self-worth is self-regulated and self-verified.

Harter (1999) described self-worth as focused on internal contingencies, such as personal value, meaning and worth as a person, as opposed to external contingencies such as showing talent, competence and confidence. Following these different interpretations of self-worth, Shean, Cohen and de Jong (2015) maintained that these explanations can practically mean anything from highly self-regulated self-evaluations, to self-worth competence and effective coping skills, to life-long challenges. Halpern, Valenzuela and Katz (2016) concluded that the pursuit of self-worth may lead to

narcissism, as individuals will always be preoccupied with themselves and the way they appear to others in their environment.

Ferris, Lian, Brown and Morrison (2015) found that the self-worth level, namely, how individuals either positively or negatively felt about themselves, was the key mediating mechanism related to human behaviour. Individuals always seek to verify their self-perceptions by behaving in a manner consistent to their perceptions. Ferris *et al.* (2015) concluded that individuals have two fundamental combined effects to verify their self-perception, namely, self-verification and self-enhancement. In self-verification individuals base their self-worth level and behavioural outcomes on the contingencies of self-worth domains. Thus, there is a significant relationship between self-worth and behavioural outcomes. In self-enhancement there is no relation between the individuals' feelings of self-worth and the behavioural outcomes emanating from the contingencies of self-worth domains.

The argument presented by Ferris *et al.* (2015) and Su, Chiao, Chang and Crocker (2016) is that an individual's self-worth is basically tied to or contingent on a particular domain. The individuals' feelings of self-worth will increase and perform at maximum levels when their behavioural outcomes are positively linked to the contingencies of self-worth domain. Conversely, individuals will not verify their negative self-perceptions tied to negative or unpleasant behaviours to a particular self-worth domain.

Shean *et al.* (2015) found that individual feelings of self-worth that are based on external self-worth contingencies will always be threatened, leading to negative consequences. Shean *et al.* (2015) warned that the reliance on the external responses and actions of others is like an invitation to a tragedy. On the other hand, the ultimate source of feelings of self-worth which is based on the internal contingencies of self-worth domain, such as God's love or religion and virtues, is less threatening and not dependent on the actions and responses of others. In conclusion, Enjaian, Zeigler-Hill and Vonk (2016) asserted that contingent self-worth essentially refers to individuals meeting the goals and standards they believe must be achieved in order to have value and worth as people.

Shean *et al.* (2015) argued that there were many definitions of self-worth. For the purpose of this research study, Crocker's (2002) definition will be used. Crocker (2002) described self-worth as represented along internal and external domains, in which success or failure leads to increases or decreases in the individual's self-esteem.

These contingencies of self-worth domains serve as self-regulatory functions influencing individual choice and efforts in these domains. According to Crocker (2002) and Mischkowski, Crocker and Way (2016) the notion that there are differences in how people react in these domains on which they stake their self-worth, was attributed to the father of psychology, William James (1890).

2.2 THEORETICAL FOUNDATION AND SELF-WORTH MODELS

The theoretical foundation and theory relevant to the construct self-worth will be discussed in this section.

2.2.1 Covington's self-worth model

In the literature there are many classical self-worth models that explain the construct self-worth, and which were limited to internal, personal feelings and self-consciousness and healthy functioning of individuals in a given social context. The Covington self-worth model is based on the premise that the highest individual priority is the search for self-acceptance, manifesting itself in the individual's worth being linked to their perception of their abilities to achieve competitively (Covington, 1997). From this explanation it can be deduced that the individual's self-worth can be equated to their achievements, and the perception of their own value as human beings.

The Covington self-worth model must not be confused with achievement and ability, as it essentially emphasises feelings of worthlessness arising from the disclosure of inconsistency. The model also makes a distinction between approaching success and avoiding failure (Covington, 1984).

The basic assumption of the Covington self-worth model is that factors, such as ability, effort and performance, influence the individual's sense of self-worth (Covington, 1984). Figure 2.2 below provides a graphical representation of Covington's self-worth model.

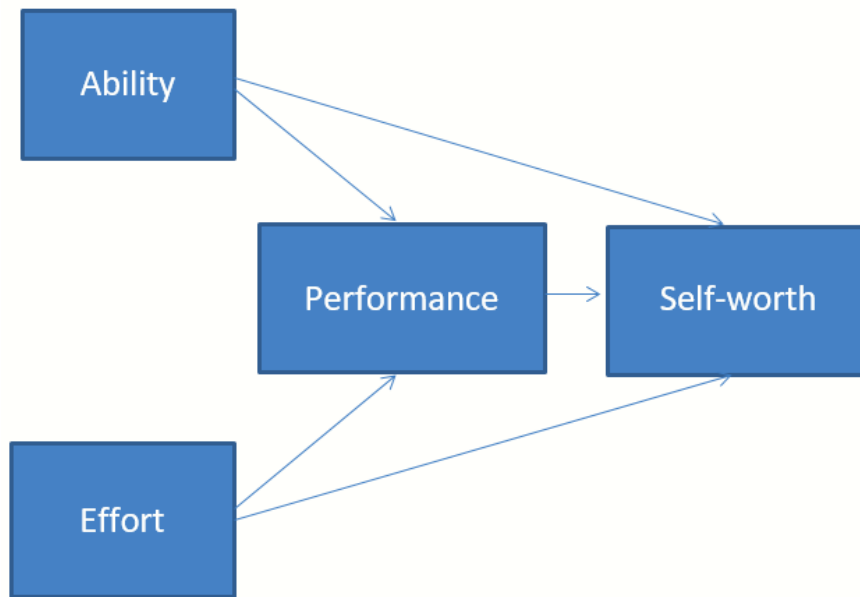


Figure: 2.2
Schematic diagram of Covington's self-worth model

Adapted from Covington (1984)

For the purpose of this research study, the Covington self-worth model was not chosen, due to its canonical, linearly directed graph in which ability, effort and performance are linked to self-worth. Instead the Crocker self-worth model, to be discussed in detail below, was chosen

2.2.2 Crocker's Contingencies of Self-worth Model

In the context of this study, the Contingencies of Self-worth Scale (CSWS) developed by Crocker (2002) will be used to measure the participants' level of self-worth based on both internal and external domains. Self-worth contingencies represent the particular internal and external domains upon which individuals' global sense of feelings of self-worth are based (Crocker & Wolfe, 2001; Deci & Ryan, 1995).

The classical self-worth models focused primarily on whether the individual's self-worth feelings are high or low. The chosen model went a step further by outlining and specifying the particular domains in the individual lifespans in which their feelings of self-worth are responsive to particular domains. In addition, the chosen model also shed some light on the fact that when feelings of self-worth are contingent upon a particular self-worth domain, the individual's behaviour in that domain holds greater implications for the self (Ferris, Lian, Brown, Pang & Keeping, 2010).

Kernis (2003) provided an opposing argument that although he confirmed that individuals have contingencies of self-worth, he strongly disagreed and maintained that individuals differ in relation to what their feelings of self-worth are contingent on. Previous to this, studies by Deci and Ryan (1995) had originally paved the way for this view by asserting that basing the individuals' value and feelings of self-worth on the external domains of self-worth, such as physical appearance and pleasing others, would lead to negative consequences, when compared to basing it on the internal self-worth domains, such as virtues and religion. Deci and Ryan (1995) further argued that the feelings of self-worth are essentially a fundamental human need that individuals need to pursue at all costs. In contrast, Crocker and Park (2004) argued that it would be detrimental for individuals to pursue feelings self-worth at all costs to prove success in the domains of contingencies of self-worth, as this would over time lead to physical and psychological vulnerability. Furthermore, Crocker and Park (2004) were of the view that although positive emotions associated with success in the domains in the contingencies of self-worth were pleasant, they were not the fundamental human needs for learning, relatedness, autonomy, self-regulation and self-validation. Jordan and Zeigler-Hill (2013) found that some aspects of the feelings of self-worth may serve as vulnerable factors that moderate the relationship between feelings of self-worth and various outcomes.

The CSWS is based on a number of internal and external domains (O'Driscoll & Jarry, 2015). McCormick, Turner and Foster (2015) also found that self-worth is dependent on the evaluations of others. Therefore, the mutual dependency on the evaluations of others in the team was the source of individual members' self-worth which met their fundamental need of experiencing the sense of belongingness as postulated by Maslow's motivation theory.

The CSWS developed by Crocker (2002) identified that feelings of self-worth and value were associated with certain domains which self-worth is contingent to, such as religion, virtues (ethical behaviour), family support, competition, pleasing others, physical appearance (attractiveness) and work competence. The CSWS, according to Enjaian *et al.* (2016), in essence, reflects the extent to which individuals' feelings of self-worth are reliant on meeting their set goals and standards in particular domains of their lives.

2.3 FACTORS INFLUENCING SELF-WORTH

Crocker's (2002) and Canevello and Crocker's (2017) contingencies of self-worth model and theory are primarily domain-specific, and focused on the following seven domains found to be important internal and external sources of self-worth.

2.3.1 Internal domains

The two internal sources of self-worth as identified by Crocker (2002) and Crocker *et al.* (2003) will be discussed in the section below.

2.3.1.1 Religion (God's love)

Religion plays an important role in the lives of people. For some individuals, their personal relationship with celestial spiritual powers shapes the way they establish relationships with others in their environment (Pollner, 1989). Harcum (1994) maintained that religion was related to the individual's worth, excellence and sense of self-worth. Pargament (1997) described religion as the ongoing individual search for significance in ways related to the sacred, and the search for a sense of meaning in life. Emmons (2005) concurred that when individuals experience a greater sense of meaning and purpose in life, their sense of optimism and self-worth are increased and fostered.

Crocker *et al.* (2006) asserted that individuals who based their feelings of self-worth on the domain of religion and God's love spent a significant amount of their time in religious and spiritual activities, such as praying and attending religious services.

Furthermore, Ellison and Henderson (2011) found that religious tradition was a contingency that individuals relied on, and were most likely to feel good about themselves in their belief that God intervened daily in their lives, when compared to individuals who did not believe in the divine intervention of God. According to Ellison and Henderson (2011), these individuals experienced God's unconditional love and regarded it as a potential resource to enhance their sense of self-worth. Cranney (2013) concurred that there was a positive correlation between believing in God and a experiencing sense of meaning in life.

Jung (2015) found a close correlation between religion and a heightened level of self-worth and self-efficacy. Jung (2015) argued that individuals who truly believed in the divine intervention of God and also believed that God was acting on their behalf, found

legitimation in their ideas and behaviours, leading to the reinforcement of feelings of self-worth and value that ultimately increased the sense of meaning in their lives. This was evident in the strong attachment to God.

From the above discussion it can be deduced that individuals who base their feelings of self-worth on the contingencies of self-worth domain of religion were likely to find a strong sense of meaning and purpose in life through self-verification.

Shean *et al.* (2015) found that God was a source of participants' worth that formed part of their existence and purpose in life, and which was part of their internal domain of self-worth contingency. The participants further linked their existence to the purpose God had pre-set for them. Peterson (1995), as quoted by Shean *et al.* (2015), concluded that self-worth derived from God was non-contingent on external others, hence it was a more stable and hardy form of worth.

2.3.1.2 Virtues

Crocker, Park, Villacorta, Luhtanen and Kliger (2005) found that most students who based their self-worth on the virtue domain reported that they spent a substantial amount of their time trying to validate that they were moral and virtuous people. Crocker *et al.* (2006) concurred that individuals who based their feelings of self-worth on the contingency of virtue spent most of their time on voluntary activities promoting ethical behaviours. Shean *et al.* (2015) also agreed that individuals will always invest more resources and time in the contingencies where they place their worth.

2.3.2 External domains

In the next section Crocker's (2002); Crocker *et al.* (2003) five external sources of self-worth will be discussed.

2.3.2.1 Family support

Family support is the resource people rely on when they need sympathy and need someone to soothe their distressed feelings (Wei, Heppner, Ku & Liao, 2010). Wei, Yeh, Chao, Carrera and Su (2013) found that family support mediated the negative impact of psychological stressors. Menon and Pant (2015) assert that family support in the contingencies of self-worth was relevant to the goal of maintaining relationship harmony. In their findings, they found that individuals from typical close-knit extended Indian family structures received more support and approval from their families, when compared to non-ethnic families in Britain.

2.3.2.2 Competition

According to Norem-Hebeisen and Johnson (1981), the individual's positive self-worth is related to how they competitively compare themselves with others. Crocker and Cooper (2003) asserted that competition as an external contingency of self-worth is influenced by how well individuals engage in competitive tasks. Their feelings of self-worth are boosted by defeating others in competition. Cross and Madson (1997), as quoted by Crocker et al. (2003), found that men derived self-worth and satisfaction from being better than others. Tjosvold, XueHuang, Johnson and Johnson (2008) found a positive correlation between competitiveness and self-worth. This was confirmed in the study conducted by Johnson and Johnson (2009). Gocłowska, Murayama and Kobeisy (2015) concurred that people vary in the extent to which they prefer to be competitive in achieving individual tasks. Canevello and Crocker (2015) found that competition was positively related to self-worth in the contingencies of self-worth scale. When individuals' self-image goals are focused on constructing, maintaining and defending their desired self, in either the private or public environment, others will be construed as competitors leading to uneasy feelings towards them.

2.3.2.3 Pleasing others

Forsyth (2007), as quoted by Shean *et al.* (2015), found that although it was essential for adults to encourage and support children in their academic performance, it was equally important for adults to acknowledge that self-worth resides in the inner core of their children's being. In other words, the children's self-worth must not be entirely based on pleasing adults, as this will be basing and defining their self-worth on a fragile external source of worth. It is not how they need to please others, but how they think or feel about themselves.

2.3.2.4 Physical appearance

To basing feelings of self-worth on physical appearance is strongly correlated with the goal to validate one's attractiveness on the contingencies of self-worth domain, and thus has implications for interpersonal relationships (Crocker & Park, 2004). Furthermore, Crocker *et al.* (2006) asserted that individuals who based their feelings of self-worth on the contingency of physical appearance spend a substantial amount of their time in grooming, shopping, partying and socialising with others. Strahan (2002), as quoted by Crocker *et al.* (2006), had earlier measured the physical appearance contingency of self-worth and found that students highly contingent to this

domain ate less snack food. Crocker *et al.* (2005) also found that most students who based their self-worth on physical appearance reported that their goal was to validate their attractiveness.

According to Abou-Rizk and Rail (2013), both the Western and Arab cultures accord a higher status to slimness, as a basic requirement for a pleasing physical appearance and positive self-worth. Tamir and Golan (2015) found that the effect of physical appearance can be effective during teenage years. The way people think and feel about their physical appearance is a major factor in self-worth. The feelings of self-worth can be strongly influenced by physical appearance.

2.3.2.5 Work competence

Rotundo and Sackett (2002) maintained that work competence behaviours represent the manner in which employees will base their self-perceptions. If their self-perception of themselves is positive, it will lead to increased feelings of self-worth, and help them to accomplish organisational goals. Cai, Guan, Li, Shi, Guo, Liu and Fang (2015) found that there was a positive correlation between self-worth and work performance. Individuals with high feelings of self-worth were motivated to set challenging goals and actively engage in achieving the set work performance and career goals. Ferris *et al.* (2015) concurred with Rotundo and Sackett (2002) that individuals with high feelings of self-worth seek to prove in the work environment that they are worthy and possess good qualities.

2.3.3 Socio-biographical variables

Potgieter (2012) found a positive correlation among the participants' socio-biographical information (age, race, gender, marital status and employment status) that predicted their employability attributes. Sullivan (1999) and Enjaian *et al.* (2016) confirmed that biographical characteristics influence individuals' employability attributes. These relevant socio-biographical variables are discussed in the section below.

2.3.3.1 Race

Potgieter (2012), found that Blacks of younger ages had higher feelings of self-worth, however, during their adulthood Blacks showed a steeper decline in feelings self-worth when compared to Whites.

A study conducted by Neblett, Chavous and Sellers (2009) found a correlation between self-worth and academic achievement. Self-worth served as a buffer to racial discrimination among African Americans in the higher education sector. From the above, it can be deduced that poor self-worth is influenced by under-achievement, and conversely, strong self-worth promotes the appropriate behaviour associated with academic competence. Cushman and Cowan (2010) found a positive correlation between individuals with good self-worth and the ability to establish cohesive groups and relationships.

2.3.3.2 Age

Van der Heijde and Van der Heijden (2006) found that individual employability decreased with age, more so when individuals ventured into new career fields or were promoted to higher positions. Klimstra, Luysckz, Frinjs, Lier and Meeus (2010) found that age does not have a significant influence on personality preferences. However, Potgieter (2012) found a positive correlation between middle-aged adults and higher self-worth.

2.3.3.3 Gender

Leung, Breu, Zhang and Yan (2011) found no gender differences pertaining to feelings of self-worth. Potgieter (2012), found that gender moderates the trajectory of self-worth across the lifespan. In another study, Post (2015) found that women in leadership positions, in contrast men, were likely to emphasise teamwork and collaboration among team members.

2.3.3.4 Job tenure

Ferris *et al.* (2010) found that individual job tenure (the length of time in years employees were in the employ of the Financial Institution) was related and responsive to particular self-worth contingencies measured by the contingencies of self-worth scale. Furthermore, Alexander, Litchenstein Oh and Ullman (1998) found a positive correlation between job tenure and a greater social cohesion among team members.

2.3.3.5 Education level

Bowling, Eschleman, Wang, Kirkendall and Alarco (2010) found no relationship between self-worth and education level. However, Potgieter (2012) found that individuals with higher educational level displayed a higher level of self-worth, and this higher self-worth predicted the employees' job satisfaction (Orth, Robins & Widaman,

2012). This finding was recently supported by Grodzinsky, Walter, Victorsson, Carlsson, Jones and Faresjo (2015) who found a significant positive association between individual self-worth and educational attainment.

2.3.3.6 Job level

Potgieter (2012) found a positive relationship between job level and employability. Furthermore, Gardner, Huang, Niu, Pierce and Lee (2015) found that employees have the capabilities to cope and stay in organisations throughout periods of structured changes in the work environment. Haynie, Harris and Flynn (2016) concurred with Potgieter (2012) that employees with a high sense of self-worth strive to maintain their levels of self-worth by achieving work-related tasks and are satisfied to remain in their organisation. They perceive their interaction as meaningful and worthwhile.

2.3.4 Individual personality, defence mechanism and motivation

Crocker *et al.* (2006) maintained that individual personality is used as a defence mechanism to protect the individual's self-worth from failure in the domains of contingent self-worth. In other words, Crocker *et al.* (2006) postulated that when individuals anticipate a risk of failure in a domain in which they have based their self-worth, they are likely to create excuses to avoid the negative implications to their self-worth that will result from engaging in things that can undermine their performance.

According to Crocker *et al.* (2006), individuals whose self-worth was based on a particular self-worth contingency, were more likely to demonstrate to themselves and others that their happiness and good feelings emanate from their chosen contingency of self-worth domain. They will tend to have self-evaluation goals. Harter (1999), and McDavid, McDonough and Smith (2015), concurred that self-evaluation was positively related to future goal pursuits. McDavid *et al.* (2015) found that self-worth predicts hope. The individuals' positive perceptions of themselves and their motivation were required to pursue their life-long goals and plans, starting from adolescence to adulthood.

In summary, the researcher is of the view that the individual self-worth is self-regulated and linked to both internal and external domains as postulated by Crocker (2002). In addition, the individuals are always faced with the personal inherent conflict regarding who determines and validates their self-worth and personal value. The way individuals

perceive their self-worth has a profound influence on how they interact with others in the workplace.

2.4 CONCEPTUALISATION OF PERSONALITY

In the following section, personality will be conceptualised to address the research question in Chapter 1 which relates to the theoretical conceptualisation of the construct personality preferences. The construct personality will be explored by examining the basic literature on personality, and in particular, personality preferences. An integrated team cohesion model from the social psychology perspective will be constructed to enable the researcher to explain the theoretical relationship and interrelationships among the variables of self-worth, personality preferences, conflict resolution styles and team cohesion.

2.4.1 Models of personality

Cloninger, Svrakic and Przybeck, (1993), and Ahmed (2015), defined personality as the way individuals learn from experience and are able to adapt their feelings, thoughts and actions to a changing environment. There are many models of personality, but the two most used by academics and practitioners are the Big Five personality traits (Big 5) and the Myers-Briggs Type Indicator (MBTI). Garcia *et al.* (2015) argued that the Big 5 was widely used as a predictor of self-worth. Mathews (2015) classified the Big 5 widely used by individuals across different cultures, as extroversion, agreeableness, conscientiousness, neuroticism (emotional stability) and openness to experience. Garcia *et al.* (2015) concurred with Crocker (2002) that family support, as an internal contingency of self-worth, predicted high feelings self-worth and value in relation to the personality traits of extraversion (Crocker *et al.*, 2003).

For the purpose of this study, the MBTI personality preferences model will be used. Coetzee (2005) maintained that the MBTI was designed to implement the personality preferences theory, and therefore it was different from other personality instruments. The researcher chose the MBTI because the translations of the instrument had been used successfully by Consulting psychologists in various cultures throughout the world, more especially, the four dichotomies and all sixteen personality types. In addition the MBTI was preferred as it has been scientifically proven that individuals personalities differ in terms of gathering information, how they self-regulate and

evaluate themselves, how they interact with the external environment and the usage of their psychological energy (Myers, McCaulley, Quenk & Hammer, 2009).

According to Myers *et al.* (2009), the model is primarily based on a Swiss psychiatrist, Carl Gustav Jung's (1921, 1971) theory of psychological types. Myers *et al.* (2009) maintained that Jung devoted most of his time to develop the personality preferences concepts of extraversion and introversion as complementary attitudes or orientations of individual energy. According to Ahmed (2015), Jung's theory was based on how individuals' perceptions and thoughts are used to evaluate their world.

According to Jung's (1921, 1959) theory of personality development, individuals differ in the manner in which they react to their external environment. Myers *et al.*'s (2009) personality preference types originated from Jung's (1921) type theory, by maintaining individuals in terms of the following four postulated dichotomies:

- Firstly, how individuals direct their energy either towards the external environment or toward their inner world (attitudes or orientations of energy).
- Secondly, individuals either use their five senses to focus on their perceptions or focus on perceiving patterns of interrelationships (functions or processes of perception).
- Thirdly, individuals can either base their conclusions on logical and objective analysis and detachment, or base their conclusions on personal values and focus on understanding and striving for harmony (Myers *et al.*, 2009).
- Finally, the fourth dichotomy was later added by Myers' daughter Katherine, and it was based on the preference for decisiveness when dealing with the external environment, using one of the judging processes, namely, thinking or feeling, or preferring to be flexible and spontaneous in dealing with the external environment, using one of the perceiving processes, namely, sensing and intuition (Myers *et al.*, 2009).

Robbins, Judge, Odendaal and Roodt (2016) maintained that personality development must be understood in a systemic perspective, as the total sum of an individual's ways of reacting and interacting with others in their external environment. Allport (1960) defined personality as the dynamic organisation of the psychophysical systems within individuals that determine their unique adjustment to their environment (Robbins *et al.*, 2016).

Personality development is a dynamic process taking place throughout the entire life of an individual, ultimately leading to self-actualisation (Coetzee, 2005). Self-actualisation was categorised as both teleological and causative in nature. An individual's unique functioning is determined by their past and what they hope to become (Jung 1921, 1959, 1969). According to Coetzee (2005), personality type is the dominant and conscious predisposition among individuals to either react or act in a characteristic manner when observing the external world and assigning meaning to experience.

Lastly, Orth, Robins and Trzeniewski (2013), and later Knight (2017) stated that Erik Erikson in his theory of psycho-social development, postulated that an individual's personality developed over their lifespan. Knight (2017) identified the eight psycho-social stages as listed in the table below.

Table: 2.1
Erikson's eight stages of psycho-social development

Stages	Stage description challenges and concerns	Adaptive strength/Virtue
Infancy	Basic Trust vs Mistrust	Hope
Early childhood	Autonomy vs Shame and Doubt	Will
Play age	Initiative vs Guilt	Purpose
School age	Industriousness vs Inferiority	Competence
Adolescence	Identity cohesion vs Role confusion	Fidelity (search for belongingness)
Young adulthood	Intimacy vs Isolation	Love (search for mutual love)
Adulthood	Generativity vs Stagnation or Self-absorption	Care (search for needed-ness)
Old age	Integrity vs Despair	Wisdom

Source: Adapted from Knight (2017) eight stages model of psychodynamic psychotherapy linked to Erikson eight stages of psycho-social development

The next section discussed the attitudes and functions of the MBTI personality preferences, and Jung's theory of psychological types.

2.4.2 Attitudes and functions of consciousness

Jung (1921, 1971 and 1990) postulated that all human beings, from birth, make clear choices on the usage of their minds, and with the passage of time, they acquire a mental preference or psychological type that characterises their personality. The three basic mental preferences are, firstly, ranges of orientation (Extraversion versus Introversion) which is common to all people and manifests in terms of the functions of consciousness and the attitudes of consciousness, secondly, perceiving (Sensing versus Intuition) and thirdly, interpreting (Thinking versus Feeling). According to Myers *et al.* (2009), the fourth mental preference of Judgement and Perception was added by Katharine Briggs and her daughter Isabel Briggs Myers.

2.4.2.1 The attitude of consciousness

The attitudes of consciousness are the basic two directions in which people's conscious interests and energies are likely to flow: inwardly into a subjective psychological experience, or outwardly to the environment of objects and collective norms. These two directions define the attitude types of introversion and extraversion, and whichever dominates the consciousness, will cause its opposite to be repressed, and characterises the functioning of the unconscious (Myers *et al.*, 2009).

2.4.2.2 The functions of consciousness

Myers *et al.* (2009) asserted that, according to Jung, there are four fundamental functions of consciousness. That is, Thinking and Feeling (Judging functions), and Sensation and Intuition (Perceiving functions). Bilsker (2002) described these Jungian functions of consciousness as follows:

(a) Sensation

The sensation function refers to the non-evaluative first experience of a phenomenon or the transmission of physical and physiological information/stimulus to perception. People see, hear, taste, touch and smell real objects outside their body. This implies that sensation has shed light about something, but not what it is (Bilsker, 2002).

(b) Intuition

The intuition function is basically irrational. It refers to the psychological function, which transmits perceptions in an unconscious manner. It perceives possibilities

for real. In essence, intuition results in the perception of complete wholes without people necessarily being able to explain the manner in which the content was arrived at. It makes up for what people currently cannot sense or feel because it lacks clarity (Bilsker, 2002).

(c) Thinking

The thinking function refers to the presentation of a conceptual connection, or linking up of presentations by means of a concept. In essence, the thinking function recognises and describes the experienced phenomenon (Bilsker, 2002).

(d) Feeling

The feeling function refers to a subjective evaluation of experience that may be independent of external stimuli or phenomena.

According to Briggs-Myers *et al.* (2009), Jung (1921) arranged these four functions into two pairs of opposites or a dyad. Sensation and Intuition are a pair of an irrational function, whereas, the Thinking and Feeling are a rational function. The cycle below graphically depicts the opposite sides of the dyad:

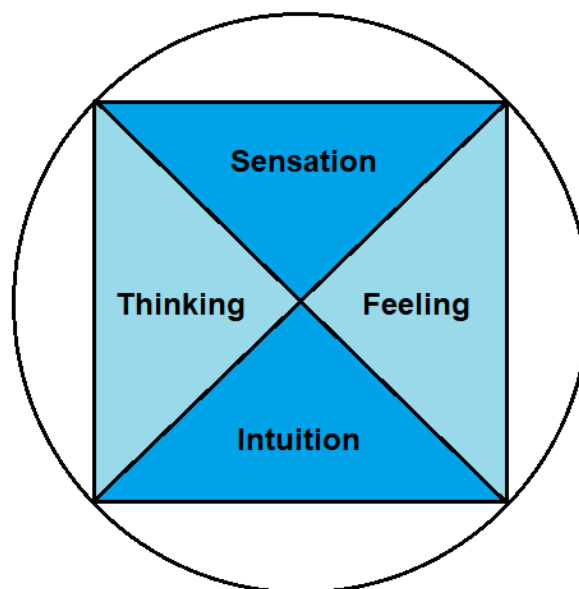


Figure: 2.3
MBTI opposite sides of the dyad (Coetzee, 2005)

Sendall, Peslak, Ceccucci and Kruck (2015) concurred that, based on Jung's typology (1971), people are classified into two mental functions. That is, Sensing-Intuition and Thinking-Feeling. The fourth Judging-Perceiving dichotomy is used to determine their dominant function.

2.4.3 Jung’s theory of psychological types

The theoretical foundation of the MBTI can be traced to Carl Jung’s trait theory on psychological types (Myers *et al.*, 2009). Jung’s theory provided a sequence of four cognitive functions (thinking, feeling, sensation and intuition), each having one or two orientations (extraversion or introversion) leading to a typology of eight personality types. Nwogu and Momoh (2015) concurred that the first three dichotomies, namely, Extraversion (E) versus Introversion (I) (Orientation energy), Sensing (S) versus iNtuition (N) (Preferred mode of perception), and Thinking (T) versus Feeling (F) (Decision making) were part of Jung’s original personality theory. The fourth dimension, relating to the way people interact with the outside world, was added by Briggs Meyer and her daughter Isabel (Myers *et al.*, 2009).

The table below provides brief descriptions of the four dichotomies of the MBTI instrument.

Table: 2.2
The four dichotomies of the MBTI instrument

Extraversion – Introversion Dichotomy (Attitudes or Orientations of energy)	
Extraversion (E) Directing energy mainly toward the outer world of people and objects.	Introversion (I) Directing energy mainly toward the inner world of experiences and ideas.
Sensing – Intuition Dichotomy (Functions or Processes of Perception)	
Sensing (S) Focusing mainly on what can be perceived by the five senses.	Intuition (N) Focusing mainly on perceiving patterns and interrelationships.
Thinking – Feeling Dichotomy (Functions or Processes of Perception)	
Thinking (T) Basing conclusions on logical analysis with a focus on objectivity and detachment.	Feeling (F) Basing conclusions on personal or social values with a focus on understanding and harmony.
Judging – Perceiving Dichotomy (Attitudes or Orientations toward dealing with the outside world)	
Judging (J) Preferring the decisiveness and closure that result from dealing with the outer	Perceiving (P) Preferring the flexibility and spontaneity that results from dealing with the outer

world using one of the Judging processes (Thinking or Feeling).	world using one of the Perceiving processes (Sensing or Intuition).
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Source: Myers *et al.* (2009)

Jung's personality theory maintained that people live in two worlds. That is, the outer world that included things, people and events, and the inner world that included own thoughts, feelings and reflections. Jung identified the eight functions as listed in Table: 2.3 (Myers *et al.*, 2009).

In light of the foregoing discussion, the researcher as an accredited MBTI administrator and user, summarised the two sets of variable pairs or psychological functions as follows:

- Extroversion/Introversion (E-I) describes the individual team member's interpersonal way of interaction with others in the external environment;
- Sensing/Intuition (S-N) describes the individual team member's approach in solving problems;
- Thinking/Judgement (T-F) describes the individual team's member approach in decision making; and
- Perception/Judgement (P-J) describes the individual team's member's way of living.

The table below provides brief descriptions of the eight Jungian functions.

Table: 2.3
The eight Jungian functions

Dominant extraverted Sensing	Directing energy outwardly and acquiring information by focusing on a detailed, accurate accumulation of sensory data in the present.
Dominant introverted Sensing	Directing energy inwardly and storing the facts and details of both the external reality and internal thoughts and experiences.
Dominant extraverted Intuition	Directing energy outwardly to scan for new ideas, interesting patterns, and future possibilities.
Dominant introverted Intuition	Directing energy inwardly to focus on unconscious images, connections, and patterns that create inner vision and insight.
Dominant extraverted Thinking	Seeking logical order to the external environment by applying clarity, goal-directedness and decisive action.
Dominant introverted Thinking	Seeking accuracy and order in internal thoughts through reflecting on and developing a logical system for understanding.

Dominant extraverted Feeling	Seeking harmony through organising and structuring the environment to meet people's needs and their own values.
Dominant introverted Feeling	Seeking intensely meaningful and complex inner harmony through sensitivity to their own and others' inner values and outer behaviour.

Jung's model was refined so as to describe the following sixteen personality types (Myers *et al.*, 2009):

- Extraverts with dominant Sensing and auxiliary Thinking
- Extraverts with dominant Sensing and auxiliary Feeling
- Extraverts with dominant Sensing and auxiliary Thinking
- Introverts with dominant Sensing and auxiliary Feeling
- Extroverts with dominant Intuition and auxiliary Thinking
- Extraverts with dominant Intuition and auxiliary Feeling
- Introverts with dominant Intuition and auxiliary Thinking
- Introverts with dominant Intuition and auxiliary Feeling
- Extraverts with dominant Thinking and auxiliary Sensing
- Extraverts with dominant Thinking and auxiliary Intuition
- Introverts with dominant Thinking and auxiliary Sensing
- Introverts with dominant Thinking and auxiliary Intuition
- Extraverts with dominant Feeling and auxiliary Sensing
- Extraverts with dominant Feeling and auxiliary Intuition
- Introverts with dominant Feeling and auxiliary Sensing
- Introverts with dominant Feeling and auxiliary Intuition

The table below provides brief descriptions of the sixteen personality types.

Table: 2.4
The sixteen personality types

ENTJ	ISFP
Intuitive, innovative Organiser, analytical, systematic, confident; pushes to get action on new ideas and challenges	Observant, loyal Helper, reflective, realistic, empathic, patient with details, gentle and retiring, shuns disagreements; enjoys the moment
ESTJ	INFP
Fact-minded, practical Organiser, assertive, analytical, systematic, pushes to get things done and working smoothly and efficiently	Imaginative, independent Helper, reflective, inquisitive, empathic, loyal to ideals, more interested in possibilities than practicalities
INTP	ESFJ
Inquisitive Analyser, reflective, independent, curious; more interested in organising ideas than situations or people	Practical Harmoniser and worker-with-people; sociable, orderly, opinionated; conscientious; realistic and well tuned to the here and now
ISTP	ENFJ
Practical Analyser, values exactness; more interested in organising data than situations or people; reflective, a cool and curious observer of life	Imaginative Harmoniser and worker-with-people; sociable, expressive, orderly, opinionated, conscientious; curious about new ideas and possibilities
ESTP	INFJ
Realistic Adapter in the world of material things; good natured, tolerant, easy going; oriented to practical, first-hand experience; highly observant of details of things	People-oriented Innovator of ideas; serious, quietly forceful and persevering; concerned with the common good, with helping others to develop
ESFP	INJT
Analytical Manager of Facts and Details; dependable, decisive, painstaking and systematic; concerned with systems and organisation; stable and conservation	Logical, critical, decisive innovator of serious intent, highly independent, concerned with organisation; determined and often stubborn
ISTJ	ENFP
Analytical Manager of Facts and Details; dependable, decisive, painstaking and systematic; concerned with systems and organisation; stable and conservative	Warmly enthusiastic Planner of Change; imaginative, individualistic; pursues inspiration with impulsive energy; seeks to understand and inspire others
ISFJ	ENTP
Sympathetic Manager of Facts and Details, concerned with people's welfare; dependable, painstaking and systematic; stable and conservative	Inventive, analytical Planner of Change; enthusiastic and independent; pursues inspiration with impulsive energy; seeks to understand and inspire others

Source: Myers *et al.* (1998)

Myers *et al.* (2009) posited that it would be unwise to merely restrict the description of the type of group to the common characteristics described in every type in the group. From their statement it can be deduced that characteristics prevalent in only one or two personality preference types in a particular group cannot be reported as typical of the entire group.

Table: 2.5 gives an overview of the terminology used for describing the combinations of preferences.

Table: 2.5
Terminology for describing combinations of preferences

Dynamic combinations		E-I with functions	
ESP Types	The two dominant extraverted Sensing types – ESTP and ESFP	ES Types	Extraverted with Sensing The four types – ESTP, ESFP, ESTJ, ESFJ
ISJ Types	The two dominant introverted Sensing types – ISTJ and ISFJ	IS Types	Introverts with Sensing The four types – ISTP, ISFP, ISTJ, ISFJ
ENP Types	The two dominant extraverted Intuitive types – ENTP and ENFP	EN Types	Extraverts with Intuition The four types – ENTP, ENFP, ENFJ, ENTJ
INJ Types	The two dominant introverted Intuitive types – INTJ and INFJ	IN Types	Introverts with Intuition The four types – INTJ, INFJ, INTP, INFP
ETJ Types	The two dominated extraverted Thinking types – ESTJ and ENTJ	ET Types	Extraverts with Thinking The four types – ESTJ, ESTP, ENTJ, ENTP
ITP Types	The two dominant introverted Thinking types – ISTP and INTP	IT Types	Introverts with Thinking The four types – ISTP, ISTJ, INTP, INTJ
EFJ Types	The two dominant extraverted Feeling types – ESFJ and ENFJ	EF Types	Extraverts with Feeling The four types – ESFP, ESFJ, ENFP, ENFJ
IFP Types	The two dominant introverted Feeling types – ISFP and INFP	IF Types	Introverts with Thinking The four types – ISFJ, INFJ, ISFP, INFP

Source: Myers *et al.* (1998: 38)

Myers *et al.* (1998) maintained that the following four basic rules explain how each of the mental functions typically operates:

- A person's dominant function is typically used in the direction of the preferred attitude – either Extraversion or Introversion;
- A person's auxiliary function is usually used in the direction of the opposite, non-preferred attitude – if the dominant is extraverted, the auxiliary is introverted, and *vice versa*;
- A person's tertiary function may be used in either direction, depending on circumstances or individual habits;
- A person's inferior function is typically used in the opposite direction to that of the dominant – if the dominant is introverted, the inferior is extraverted, and *vice versa*.

The rules described above, combined with the Judging attitude versus Perceiving attitude identify which function is dominant, auxiliary, tertiary and inferior. Table: 2.6 depicts which function is dominant, auxiliary, tertiary and inferior in a combination pertaining to the direction in which the psychic energy typically flows for each function.

Table: 2.6
Type dynamics

Type	Dominant	Auxiliary	Tertiary*	Inferior
ESTJ	Extraverted Thinking	Introverted Sensing	Intuition	Introverted Feeling
ENTJ	Extraverted Thinking	Introverted Intuition	Sensing	Introverted Feeling
ISFP	Introverted Feeling	Extraverted Sensing	Intuition	Extraverted Thinking
INFP	Introverted Feeling	Extraverted Intuition	Sensing	Extraverted Thinking
ISTP	Introverted Thinking	Extraverted Sensing	Intuition	Extraverted Feeling
INTP	Introverted Thinking	Extraverted Intuition	Sensing	Extraverted Feeling
ESFJ	Extraverted Feeling	Introverted Sensing	Intuition	Introverted Thinking
ENFJ	Extraverted Feeling	Introverted Intuition	Sensing	Introverted Thinking
ESTP	Extraverted Sensing	Introverted Sensing	Feeling	Introverted Intuition
ESFP	Extraverted Sensing	Introverted Feeling	Thinking	Introverted Intuition
INTJ	Introverted Intuition	Extraverted Thinking	Feeling	Extraverted Sensing
INFJ	Introverted Intuition	Extraverted Feeling	Thinking	Extraverted Sensing
ISTJ	Introverted Sensing	Extraverted Thinking	Feeling	Extraverted Intuition
ISFJ	Introverted Sensing	Extraverted Feeling	Thinking	Extraverted Intuition
ENTP	Extraverted Intuition	Introverted Thinking	Feeling	Introverted Sensing
ENFP	Extraverted Intuition	Introverted Feeling	Thinking	Introverted Sensing

Source: Myers *et al.* (1998)

From the above table it can be deduced that the Extraverted or Introverted attitude is not specified in the tertiary function column, as that function may be associated with either attitude. Table: 2.7 (on the next page) provides a concise summary of each personality type preference.

Table: 2.7

Summary of characteristics associated with each preference type

ISTJ	ISFJ	INFJ	INTJ
I Depth of concentration S Reliance on facts T Logic and analysis J Organisation	I Depth of concentration S Reliance on facts F Warmth and sympathy J Organisation	I Depth of concentration N Grasp of possibilities F Warmth and sympathy J Organisation	I Depth of concentration N Grasp of possibilities T Logic and analysis J Organisation
ISTP	ISFP	INFP	INTP
I Depth of concentration S Reliance on facts T Logic and analysis P Adaptability	I Depth of concentration S Reliance on facts F Warmth and sympathy P Adaptability	I Depth of concentration N Grasp of possibilities F Warmth and sympathy P Adaptability	I Depth of concentration N Grasp of possibilities T Logic and analysis P Adaptability
ESTP	ESFP	ENFP	ENTP
E Breadth of interests S Reliance on facts T Logic and analysis P Adaptability	E Breadth of interests S Reliance on facts F Warmth and sympathy P Adaptability	E Breadth of interests N Grasp of possibilities F Warmth and sympathy P Adaptability	E Breadth of interests N Grasp of possibilities T Logic and analysis P Adaptability
ESTJ	ESFJ	ENFJ	ENTJ
E Breadth of interests S Reliance on facts T Logic and analysis J Organisation	E Breadth of interests S Reliance on facts F Warmth and sympathy J Organisation	E Breadth of interests N Grasp of possibilities F Warmth and sympathy J Organisation	E Breadth of interests N Grasp of possibilities T Logic and analysis J Organisation

According Ahmed (2015), the four terms types preferences are used to describe the order use by individuals. The first alphabet (term) is the most used mental process-dominant function, the second is the preferred auxiliary function, the third is the tertiary function, and the fourth is the least preferred inferior function. Myers *et al.* (2009), after developing a team of experts and having a factor analysis conducted, maintained that people share differences and similarities, which they identified into five subscales for each of the four MBTI scales as follows:

Table: 2.8
Summarised five subscales of the MBTI Step 2

<p>Extraverting</p> <ul style="list-style-type: none"> • Initiating • Expressive • Gregarious • Active • Enthusiastic 	<p>Introverting</p> <ul style="list-style-type: none"> • Receiving • Contained • Intimate • Reflective • Quiet 	<p>Sensing</p> <ul style="list-style-type: none"> • Concrete • Realistic • Practical • Experiential • Traditional 	<p>Intuiting</p> <ul style="list-style-type: none"> • Abstract • Imaginative • Conceptual • Theoretical • Original
<p>Thinking</p> <ul style="list-style-type: none"> • Logical • Reasonable • Questioning • Critical • Tough 	<p>Feeling</p> <ul style="list-style-type: none"> • Empathetic • Compassionate • Accommodating • Accepting • Tender 	<p>Judging</p> <ul style="list-style-type: none"> • Systematic • Planful • Early starting • Scheduled • Methodical 	<p>Perceiving</p> <ul style="list-style-type: none"> • Casual • Open-ended • Prompted • Spontaneous • Emergent

2.4.3.1 The four bipolar preferences

Mathews (2015) found MBTI as a distinguishable ‘wellness framework’ most suitable in the study of the normal population. Shank and Langmeyer (1994), as quoted by Mathews (2015), maintained that MBTI categorised individuals into four bipolar dimensions, namely, Extroversion–Introversion (E-I), Sensing-Intuition (S-N), Thinking-Feeling (T-F), and Judging-Perceiving (J-P) drawn from 16 personality types. According to Mathews (2015), the MBTI is the most widely used personality instrument.

Mathews (2015) provided the following descriptions of the dimensions:

- Extroversion: Individuals in this dimension are more sociable and enjoy the presence of others.
- Introversion: Individuals in this dimension are more aloof from others and inclined to follow their inner world concepts, thoughts and emotions.
- Sensing: Individuals in this dimension prefer the sensory experiences of current situations and of genuine practical facets.
- Intuitive: Individuals in this dimension follow inner knowledge, relations and possibilities.
- Thinking: Individuals in this dimension are engaged in analysis, reasoning and making objective considerations.
- Feeling: Individuals in this dimension are emotive and follow external subjective impressions and movements.
- Judging: Individuals in this dimension prefer a structured, controlled, planned and predictable orderly environment.
- Perceiving: Individuals in this dimension are creative in nature and follow a spontaneous and adaptive lifestyle.

According to Furnham and Crump (2015) and Han and Kim (2018), individuals are classified into one of the sixteen personality types based on the largest score obtained for each bipolar scale. For instance, a person scoring higher in Extraversion than Introversion, Intuition than Sensation, Thinking than Feeling and Judging than Perceiving would be classified as an Extroverted Intuition Thinking Judging). The test provides linear scores on each dimension described in terms of preference types based on cut-off scores. The Extraversion-Introversion dimension will have a normal distribution, with high scores being considered Extraverted and low scores being considered Introverted.

2.5 FACTORS INFLUENCING PERSONALITY PREFERENCES

Myers (1987) stated that personality theory must portray and describe people as they are. The theory states three main essentials: firstly, the constant presence of the auxiliary process, secondly, the result emanating from the combinations of perception and judgment, and thirdly, the role of auxiliary in balancing extraversion and introversion. According to Moller (1995), personality theory and preferences are based on Jung's theory. Jung maintained that the primary developmental task of the

individual was self-actualisation. Personality was therefore determined by what the individuals hope to become (defined as progression), and what they were in the past (defined as regression). Both progression and regression then interact with the processes of individuation and transcendence as the basis of personality development or self-actualisation.

According to Myers (1987), the MBTI was developed on the dynamic character of the psychological type model. Jung’s personality model was extended to include the Judging-Perception dichotomy. Jung’s description of an auxiliary function complemented the dominant function in every type. The inclusion of the Judging-Perception dichotomy identified and described the dominant auxiliary functions for each type (Myers *et al.*, 1998).

2.5.1 The four bipolar preferences explanation using key words

The table below provides a summary of key words associated with the four bipolar preferences.

Table: 2.9

Summary of key words associated with the four bipolar preferences

Extraversion	Introversion
<ul style="list-style-type: none"> ▪ Action ▪ Outward ▪ People ▪ Interaction ▪ Many ▪ Expressive ▪ Do-Think-Do 	<ul style="list-style-type: none"> ▪ Reflective ▪ Inward ▪ Privacy ▪ Concentration ▪ Few ▪ Quiet ▪ Think-Do-Think
Sensing	Intuition
<ul style="list-style-type: none"> ▪ Facts ▪ Realistic ▪ Specific ▪ Present ▪ Keep ▪ Practical ▪ What is 	<ul style="list-style-type: none"> ▪ Ideas ▪ Imaginative ▪ General ▪ Future ▪ Change ▪ Theoretical ▪ What could be
Thinking	Feeling
<ul style="list-style-type: none"> ▪ Head ▪ Distant ▪ Things 	<ul style="list-style-type: none"> ▪ Heart ▪ Personal ▪ People

<ul style="list-style-type: none"> ▪ Objective ▪ Critique ▪ Analyse ▪ Firm but fair 	<ul style="list-style-type: none"> ▪ Subjective ▪ Praise ▪ Understand ▪ Merciful
Judging	Perceiving
<ul style="list-style-type: none"> ▪ Organised ▪ Decision ▪ Control ▪ Now ▪ Closure ▪ Deliberate ▪ Plan 	<ul style="list-style-type: none"> ▪ Flexible ▪ Information ▪ Experience ▪ Later ▪ Options ▪ Spontaneous ▪ Wait

Source: Myers *et al.* (2009)

2.6 RESEARCH ON SELF-WORTH AND PERSONALITY PREFERENCES

Khalsa (1990) asserted that the original psychological theoretical foundation for the concept self, and later self-worth, is associated with William James (1890). The self was classified as the material self, the social self, the spiritual self, and the pure self. Crocker *et al.* (2006) also traced the relationship between self-worth and personality preferences to the classical psychologist William James (1890). Crocker *et al.* (2006) maintained that William James (1890) observed that self-worth qualities were both a personality preference and a psychological state. The personality preference included the individuals' stable self-worth levels over time and across different situations, and the psychological state was the moment-to-moment experience of individuals' self-worth fluctuations based on personality preferences.

Kernis, Cornell, Sun, Berry and Harlow (1993) argued that it was these individuals' fluctuating senses of self-worth, as the result of their experiences of success of failure and their personality preferences, that were significant to their self-regulation. In other words, Kernis *et al.* (1993) maintained that the individuals' self-worth would be fostered when they experienced success, and conversely the individuals' self-worth would be battered when they experienced failure. However, not all the individuals' successes and failures would equally affect their fluctuating self-worth, as this would depend on their responses to good and bad events and the relatedness of these events to their contingencies of self-worth domains. (Crocker & Wolfe, 2001). Accordingly, Crocker *et*

al. (2006) concluded that individuals would always strive to succeed and not fail because their contingent self-worth could be negatively affected.

The research conducted by Coetzee, Martins, Basson and Muller (2006) found an overall positive correlation between self-esteem and personality preferences as measured by MBTI, with the exception of the Extraverted – Feeling (E-F) and Introverted – Feeling (I-F). This was attributed to under-representation of these two types in their study.

The awareness and knowledge of personality preferences enhances the individual's self-understanding and development, stress management, interpersonal communication, problem solving and decision making (Coetzee *et al.*, 2006; Kennedy & Kennedy, 2004).

Cai, Guan, Li, Shi, Guo, Liu and Fang (2015) found that there was a positive correlation between self-worth and proactive personality. Cai *et al.* (2015) maintained that proactive personality mediated the negative effect of self-worth in achieving career goals. Moreover, individuals' with a higher self-worth and a higher proactive personality were more likely to develop a salient future work self and higher career adaptability. Cai *et al.* (2015) concluded that individuals with high self-worth see themselves as significantly worthy, and those with low self-worth perceive themselves as less worthy and doubtful of their abilities. In essence, the effect of self-worth and proactive personality positively strengthens and predicts future work self and career adaptability.

Employees do not react in the same way to the inherent conflict found in teams. Personality and a sense of self-worth play an important role in how they cope and adjust to the team interpersonal dynamics. The employees' sense of self-worth, according to Brockner (1988), and as cited by Haynie, Harris and Flynn (2016), serves as a coping mechanism that influences the individual's extent towards the perceived stressors, as a disruption to the individual's focus on achieving goals. From the foregoing discussion it can be deduced that employees with a high level of sense of self-worth are less vulnerable to stressors when compared to employees with a low level of sense of self-worth.

The main criticism of Crocker's (2002) model and measure of self-worth, is the fact that it reduced the individual's contingencies of self-worth to seven main categories. In a multi-cultural and ethnically diverse society like South Africa, it will not be appropriate

to measure individual self-worth in only seven domains. It is the view of the researcher that the model will be more appropriate to westernised and homogenous countries. Although, the MBTI was appropriate to measure personality preferences, the only criticism was related to its ipsative nature, as it did not allow for broader and varied statistical analyses. A seven-point Likert scale questionnaire could have allowed for greater interpretations.

2.7 CHAPTER SUMMARY

Chapter 2 addressed the first literature research aim, namely, to explore psychological variables conceptualised as self-worth and personality preferences from a theoretical perspective by means of theoretical models in the literature. Firstly, the conceptual and paradigm foundations of self-worth, models of self-worth, and factors influencing self-worth were discussed. This was followed by a discussion of the socio-biographical variables. Thereafter, the conceptual foundations of personality construct were discussed, by means of theoretical models in the literature, attitudes and functions of consciousness, Jung's theory of personality types and the Myers-Briggs type indicator (MBTI). The models discussed are not an exhaustive list towards understanding personality, but rather just the "building blocks" needed to understand the Jungian approach (as a paradigm from which the MBTI was constructed).

The discussed psychological related disposition constructs will have greater implications for both Consulting Psychology and industrial and Organisational Psychology practices, regarding the role of self-worth and personality preferences as antecedent constructs that precede team cohesion. Team cohesion will be discussed in the next chapter.

Therefore, the first research aim of the literature review has been achieved. In Chapter 3, the second literature aim, namely, to conceptualise the social psychological related disposition constructs (conflict resolution styles and team cohesion) will be discussed.

CHAPTER 3: CONFLICT MANAGEMENT AND TEAM COHESION

This chapter addresses the second literature research aim, namely, to explore sociological variables conceptualised as conflict resolution styles and team cohesion from a theoretical perspective by means of theoretical models in the literature. Firstly, the conceptual foundations of conflict resolution styles will be discussed, followed by a discussion of the relevant theoretical models. Secondly, the conceptual foundations of team cohesion and dimensions will be discussed, followed by a discussion of the relevant theoretical models, socio-biographical variables, and external factors influencing team cohesion. The implications for both Consulting Psychology and Industrial and Organisational Psychology practices regarding interpersonal conflict management and team cohesion will also be highlighted.

3.1 INTRODUCTION TO THE CONCEPTUALISATION OF CONFLICT

The first part of Chapter 3 will mainly focus on interpersonal conflict in the workplace as a construct that influences team cohesion among individuals. The second part will focus on the fostering of team cohesion, based on the superordinate goals theory as proposed by Gaertner and Dovidio (2000) that intra-team goals will be achieved only when individual members within the team begin to perceive themselves as team members, and not as individuals. The theoretical relationship between and among the constructs of psychological constructs (self-worth, personality preferences) discussed in Chapter 2 and interpersonal conflict in relation to the enhancement of team cohesion in the workplace will be explained and integrated.

Interpersonal conflict is an important part of employees' interaction in the workplace (Rahim & Magner, 1995). The use of teams in the workplace is a standard feature of the South African organisational landscape (Kriek, 2007). South Africa is a complex and diverse society with at least 11 official languages (Nel, Nel, Adams & de Beer, 2015). Interpersonal relations with colleagues, friends and strangers are subjectively based on perceptions, which in turn, are based in individual cultures and backgrounds (Nel, *et al.*, 2015). The established teams in the workplace are intended to manage the inherent interpersonal conflict (Thomas, 2016).

It is the view of the researcher that in recent times the management of interpersonal conflict in the workplace has become crucial as organisations continue to build cohesive teams, in order to remain competitive in the global market. To compete effectively, organisations can no longer rely on the individual employee's effectiveness and capabilities, but have to organise employees into teams that will enable employees to apply their full joint capacities to the tasks. Organisations thus require teams that are cohesive and effective. Effective teams have distinct characteristics and are better able to achieve their goals (Corey, Corey & Corey, 2010).

According to Rahim (2011), the classical organisational theories such as those of Taylor (1913), Gulick and Urwick (1937), Weber (1947) and Fayol (1949) failed to appreciate the positive side of interpersonal conflict. They viewed conflict as detrimental to organisational development and effectiveness. They also maintained that organisational structures, hierarchy, channel of communication, rules and standard procedures were created to increase harmony and cooperation. In addition, they postulated that the absence of interpersonal conflict was appropriate to achieve organisational effectiveness.

According to Thomas (2016), the modern fundamental view of interpersonal conflict is that employees are motivated by the desire to reduce and manage conflict at the workplace, and this is evident in the establishment of work teams that are intended to reduce tensions among individuals and enhance team cohesion, and the acceptance that interpersonal conflict is natural, and even desirable, to achieve both team and organisational effectiveness (Thomas-Kilmann, 1974; Rahim, 1992, 2011). Conflict is a universal phenomenon and an integral part of the social nature of humankind. It manifests itself in incompatibility and disagreement within and between social entities (Rahim & Magner, 1995).

Interpersonal conflict in the workplace is deemed to represent the salient, unfavourable or negative events that threaten psychological well-being (Wicham, Williamson, Beard, Kobayashi & Hirst, 2016). However, Wicham and Knee (2013) maintained that interpersonal conflict is the predictor of individual daily psychological well-being, because interpersonal conflict is always present in the workplace, and can influence work efficiency and performance (Lin, Lin, Huang & Chen, 2014). This was confirmed by Baddar, Salem and Villagrancia (2016) who found that the use of conflict management strategies in the workplace helps to maintain a healthy psycho-social

working environment, as unaddressed interpersonal conflict will negatively impact teamwork and productivity.

Coyle, Higgs, Mcallister and Whiteford (2011) maintained that the core function of teams was associated with problem solving and decision-making processes. The aforementioned authors maintained that organisational leadership was important in enhancing team cohesion and minimising interpersonal conflict. Odetunde (2013) found that effective conflict management was related to transformational leadership as opposed to transactional leadership. Baddar *et al.* (2016) concurred with Odetunde (2013) that conflict management required specific leadership, problem solving and decision making skills.

Interpersonal conflict affected the quality of team relationships (De Dreu & Weingart, 2003). According to Rahim (2011), the manner in which individuals addressed interpersonal conflict was a psychological topic worth of further scientific investigation, and this included a study of how the compromising conflict resolution style facilitated concessions and acceptable solutions among team members. The compromising style maintained harmony among team members (Leung, Brou, Zhang & Yan, 2011). For example, Lin *et al.* (2014) maintained that the usage of the pronoun 'we' moderated the effect of the compromising style on the individual's psychological well-being. They found that the compromising management style was helpful in resolving interpersonal conflict.

Lin *et al.* (2014) found that team members handled interpersonal conflict in various ways and also display different styles to resolve conflict. There were two fundamental dimensions to understand regarding the various styles for managing interpersonal conflict. The first dimension was concern for the self, and the second dimension was concern for others. Moreover, according to Rahim (1992, 2011), there are five distinct interpersonal conflict management styles, namely integrating (problem-solving), obliging (accommodating), dominating (forcing), avoiding and compromising. The key value in Chinese culture in the workplace is the compromising management style which maintains team members' harmony (Leung *et al.*, 2011). The aforementioned authors maintained that the compromising style is the approved strategy in Chinese organisations for the improvement of interpersonal communication and interpersonal conflict.

The conflict management styles are discussed from the dual concern theory paradigmatic perspective. The interpersonal conflict model was interpreted by Dunnette and Hough (1992) Thomas and Kilmann (2007) as consisting of the competing, avoiding, accommodating, compromising and collaborating styles. According to Rahim (2011), the dual concern conceptual paradigm postulates that the conflict management styles of individual team members are based on either protecting their own concern of self or promoting the concern of others in working towards achieving team goals. Pruitt and Rubin (1986) and Livingston (2014) asserted that the dual concern theory hypothesised that individuals in a negotiation process are faced with duelling concerns. That is, to either defend their own interests or to attempt to foster a cooperative agreement. Way, Jimmieson and Bordia (2016) maintained that Blake and Mouton (1964) had originally introduced the five category model for conflict management, which they classified into the methods of conflict handling modes, that is, forcing, withdrawing, smoothing, compromising and problem solving.

In light of the foregoing discussion it can be deduced that employees in the workplace employ conflict management styles in their daily interaction with others in order to deal with the inherent interpersonal conflict, which will either hinder or promote team cohesiveness and team effectiveness.

Gaertner and Dovidio's (2000) revised superordinate goals theory was influenced by the classical superordinate goals theory of Sherif (1958, 1967, 2015) that postulated that in the event of the team being caught up in interpersonal conflict, the superordinate goals directed and motivated members to focus on the shared goals and objectives. If conflict developed from incompatible goals, then the mutually shared goals promoted cooperation (Sherif, 2015).

Traditionally, interpersonal conflict had been defined as the incompatible perceptions or actions of different parties in the workplace that interfere with each other. (Deutch, 1973; Korsgaard, Jeong, Mahony & Pitsriou, 2008; Tjosvold, 2007). It was therefore important for individuals within a team to choose a conflict management style that would be most effective in a particular situation (Thomas-Kilmann, 2007; De Dreu, Evers, Beersma, Kluwer & Nauta, 2001; Rahim, 2011). These interpersonal conflicting perceptions or actions will eventually lead to either competitive or cooperative situations (Tjosvold, 2007; Tjosvold, Wong & Chen, 2014).

Baddar *et al.* (2016) confirmed that interpersonal conflict is inevitable and can be found in all workplace settings. Their study found that in the hospitals nurses used accommodating and collaborating conflict management strategies with their patients. Competition was the conflict management strategy being used the least.

According to Meyer and Surujlal (2013), failure to understand interpersonal conflict may affect the smooth running of the organisation, as effective teamwork is highly dependent on how interpersonal conflict is managed and resolved in the workplace. Thomas (2016) found that in South African organisations only 5% of the employees understand their team goals, and subsequently interpersonal conflict occurs when members argue about team goals. It is therefore important that members fully understand team goals in order to become more cohesive and committed to achieving team goals.

Joubert (2010) argued that differences in the team members socio-demographical status result in conflict, and therefore it was crucial to enhance team cohesion to ensure that differences in members' biographical characteristics, such as race, gender, culture and age, are used to increase the organisation's competitive advantage. According to Dijkstra, Beerma and Evers (2011), interpersonal conflict does not only affect the employees' productivity, but also negatively affects the team members' well-being. Roach (2016) concurred with Thomas (2016) that interpersonal conflict could be avoided by clarifying the purpose of the team. From the above it can be deduced that if team members do not share common goals, this will invariably lead to a loss of productivity and lower morale.

Hassan, Aqeel and Hussain (2015) found that conflict situations afford independent people the opportunity to interact with each other to achieve their personal needs and interests. Weingart, Behfar, Bendersky, Todorova and Jehn (2015) concurred that the proper appraisal of the situational context surrounding the interpersonal conflict was critical, in order to foster cohesiveness among members, as this contributed to high team performance (Chen, Lu, Yen & Widjaja, 2016). Furthermore, Chen *et al.* (2016) confirmed Hogg and Vaughan's (2005) previous findings that there was a positive relationship between team performance and strong team cohesion.

According to Zia and Syed (2013), conflict is a vital element in the workplace, especially where employees' interaction is concerned, and it is unavoidable because every individual is different. They further maintained that if conflict among employees,

occurring due to disagreements about certain opinions or behaviours, was not handled properly the effects could range from short-term to long-term dysfunction. On the other hand, if conflict is handled with utmost care, the result of a conflict situation could lead to long-term benefits for all parties in the workplace.

Interpersonal team conflict in the workplace is therefore often viewed as a natural and necessary critical mechanism by which individual team members navigate the variety of personalities, goals, interests and values in social interaction towards the achievement of common team goals (Oore, Leiter, & LeBlanc 2015).

Engleberg and Wynn (2012) maintained that interpersonal conflict within a team was disagreement and disharmony that might regularly occur as the result of differences that relate to goals, members' ideas, behaviour, roles, team procedures and norms. They postulated three types of team conflict, namely, substantial conflict, affective conflict and procedural conflict. Substantial conflict occurs when team members disagree about ideas, issue analysis and potential solutions and actions to be taken by the team. Affective team conflict occurs when members' emotions have been aroused by personal disagreements, personality differences, communication styles, beliefs and values, and lastly, procedural conflict occurs when team members disagree about the method or process the team is following towards the accomplishment of goals (Engleberg & Wynn, 2012).

Kashima (2016) concurred that beliefs, religion and culture are major contemporary cultural causes of intragroup and intergroup conflict. Saroglou (2016) confirmed that religion and culture were significant causes of personal and intergroup conflict among members of a team.

Zia and Syed (2013) identified two broad approaches that had historically emerged in the understanding of conflict, given the difficulty and the absence of a substantial definition of the construct conflict in the literature, by pinpointing in clear terms what conflict is. According to them, the first approach, in essence, implies that conflict, at face value, is aggressive in nature, and applies to situations where individuals deliberately act in a competing manner to prevent others from achieving their desired goals. This kind of approach seems to be a popular way of understanding conflict, and is found in disciplines, such as industrial relations and an intergroup conflict situation. The second approach they identified is to look at workplace conflict in a broader perspective, and on how it occurs and is managed. Individuals in a conflict situation

must have some preconceived notion as to which mode of conflict handling will be adopted, other than being only competitive in their functioning.

From the above discussion it can be deduced that interpersonal conflict is a natural and essential element in the workplace, and occurs as a result of individual differences. Conflict can be used as a positive force for change and productive outcomes at the workplace (Thistlethwaite & Jackson, 2014). For the purpose of this research, the historical Thomas-Kilmann (1974, 2007) conflict management instrument will be used to understand and explain the interpersonal relations and dynamics in the workplace in managing conflict and enhancing team cohesiveness.

From the foregoing discussion interpersonal conflict can be defined as all inherent and unavoidable individual differences that create disharmony and discomfort towards the accomplishment of team goals and objectives. However, these differences are not necessarily dysfunctional, as they lead to team cohesion and effectiveness.

3.2 THEORETICAL FOUNDATION AND MODELS OF CONFLICT MANAGEMENT

This section will focus on the theoretical foundation to conflict management, and the theory relevant to the construct conflict management.

3.2.1 The core theoretical model of conflict management relevant to Thomas-Kilmann instrument

In the context of this research, the conflict management modes developed by Thomas-Kilmann (1974) will be used as the theoretical framework. The instrument consisting of 30 statements was found to be a reliable assessment of conflict management styles (Hassan *et al.* 2015). The validity of the instrument was confirmed by various scholars in the discipline (Hassan *et al.*, 2015; Riasi; & Asadzadeh, 2015; Vestal & Torres, 2016; Brock, McAleney, Ma & Sen, 2017).

According Brock *et al.* (2017), the Thomas-Kilmann (1974) instrument is the best researched, valid and reliable conflict management tool used in team settings, in order to measure individual typical behaviour or style in conflict situations along two dimensions, namely, assertiveness and cooperativeness.

Blake and Mouton (1964) were the first authors to classify and provide a foundational theory of interpersonal conflict in five conflict handling modes, namely, forcing,

withdrawing, smoothing, compromising and problem solving. Amason, Thompson, Hochwarter and Harrison (1995) asserted that Blake and Mouton's (1964) conflict management theory had been further developed by Thomas and Kilmann (1974) into five conflict management styles based on two dimensions, namely, assertiveness and cooperation.

According to Dunnette and Hough (1992), the Thomas-Kilmann (1974) conflict management modes allow conflicting employees the flexibility to use one of the management modes to manage the day-to-day conflict situations inherent to the workplace. The employees' commitment to achieving the superordinate goals, allows them to use the concern of self in a more collaborative manner, and thus enhance team cohesiveness. Even though employees may experience frustration in their interpersonal relationships related to their self-worth, perhaps emanating from an uneven distribution of workload and responsibilities, the enhanced level of team cohesion and the achievement of superordinate goals will reduce the level of interpersonal conflict. A high level of team cohesion will result in successful interpersonal relationships. Amason *et al.* (1995) found that interpersonal conflict was important for team effectiveness, however, it should be managed carefully to effect positive outcomes.

The unique Thomas-Kilmann conflict management modes are based on the two main dimensions, namely, assertiveness and cooperativeness. Assertiveness is related to the individual's own concern while cooperativeness is related to the individual's concerns and attempts to satisfy other team members' concerns.

Thistlethwaite and Jackson (2014) summarised the nature of and reasons why interpersonal conflict occurs at the workplace as follows:

- Poor and miscommunication;
- Role ambiguity, in relation to one's own role and understanding of others' roles and responsibilities;
- Hierarchies and power gradients;
- Leadership or lack of;
- Differences in personal and professional values in oneself and others;
- Differences in goals;
- Inequality, or perception of inequity in relation to remuneration and workload;

- Lack of trust;
- Lack of confidence in others; and
- Lack of respect shown to colleagues.

Krutza (2012), as cited by Meyer and Surujlal (2013), found five reasons why conflict was advantageous to organisations. Firstly, the big topics and tough issues are quickly resolved. Secondly, absenteeism is reduced. Thirdly, there is a higher level decision-making as team members challenges one another. Fourthly, leadership is challenged. Lastly, performance standards are improved and enhanced.

Dunnette and Hough (1992), Thomas and Kilmann (1992, 2007) and Hassan *et al.* (2015) identified five basic management modes of conflict management from the dual assertiveness and cooperation dimensions model. Zia and Syed (2013) found that the conceptual foundations of the Thomas-Kilmann conflict management modes were based on the dual concern theory, which postulates that conflict management is a product of the following two possible scenarios:

- A high or low concern for self
- A high or low concern for the other

Lawrence and Lorsch (1967), Burke (1970), Aram, Morgan and Esbeck (1971), Ryan and Clemence (1973), Rahim (2011), and Hassan *et al.* (2015) confirmed the relevance of the five classical and historical modes or approaches of individual conflict management.

3.2.1.1 The Thomas-Kilmann (1974) conflict management instrument

The original Thomas-Kilmann conflict management instrument was developed in 1974 (Thomas-Kilmann, 1974). The instrument consists of five dimensions or styles as illustrated in Figure: 3.1 below which depicts the theoretical representation of the five conflict management styles as a function of concern for self and concern for the other.

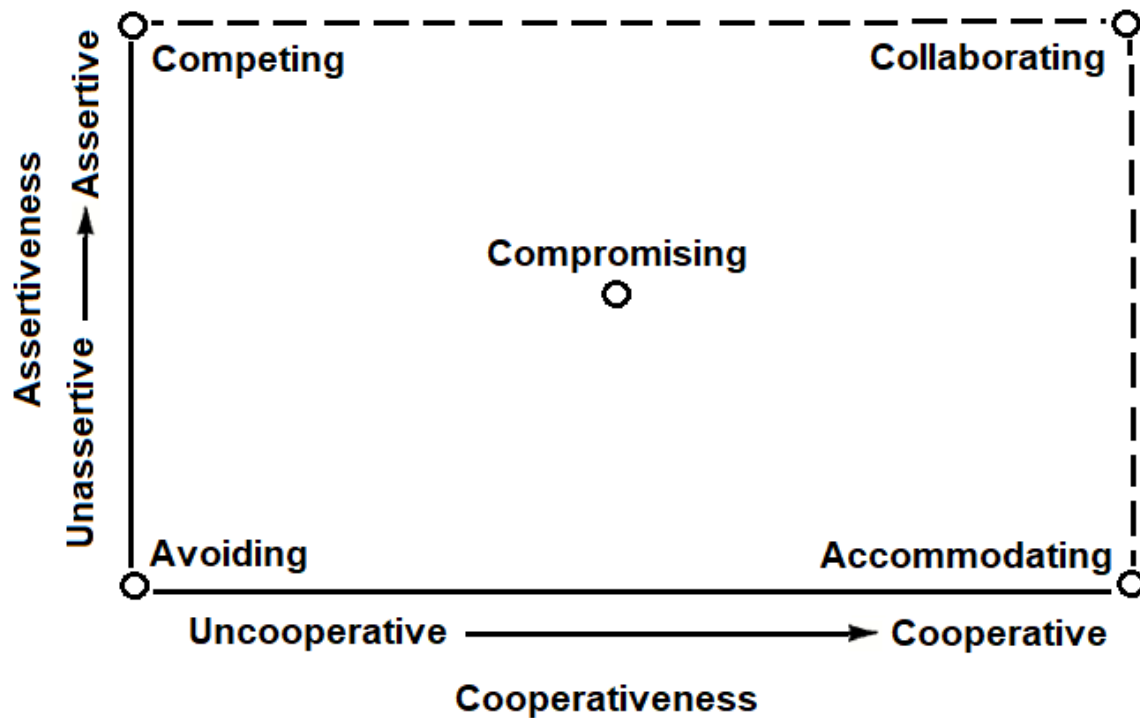


Figure: 3.1
The five Thomas-Kilmann conflict-management styles

Source: Manning and Robertson (2004)

Each of these will be briefly discussed in the section below.

(a) Dominating or competing

This conflict management style is characterised by the extent to which the employee will show high concern for self and low concern for the other on a task while also being assertive and uncooperative (Dunnette & Hough, 1992; Thomas & Kilmann, 1992, 2007). Manning and Robertson (2004) asserted that employees employing this conflict handling mode are more assertive and dominating in character but they are uncooperative. They tend to use their power to accomplish their personal goals. This is evident in their high concern for self and low concern for the other team members. From this statement it can be deduced that the employee's ultimate intention is to win at all costs, even to the detriment of the team. Hassan *et al.* (2015) concluded that competition was when members wrestle and show no concern for other team members' needs and concerns, so that their individual's views and concerns remain the dominate ones.

Zia and Syed (2015) found a low concern for other and high concern for self theoretically implied that the resulting competing style will be forcing, leading to the

individual in the team becoming more competitive by manifesting behaviours such as intimidation, convincing opinions and positional commitments.

Meier (2011) asserted that the competing conflict style was used to make quick team decisions. Erkutlu and Chafra (2015) found that employees from collective cultures preferred less direct forms of conflict handling, while employees from individualistic cultures preferred direct and confrontational ways of conflict handling.

It can be deduced that the dominating or competing conflict handling style is more confrontational in nature. This style could impair the enhancing of team cohesiveness, more especially in the heterogeneous and diverse South African culture.

(b) Obliging or accommodating

This conflict management style is characterised by the extent to which the employee will show low concern for self and high concern for the other while also being unassertive and cooperative (Dunnette & Hough, 1992; Thomas & Kilmann, 1992, 2007). Manning and Robertson (2004) posited that employees employing this conflict handling mode were less assertive and more cooperative in character. They tend to neglect their personal concerns to satisfy the concerns of others in the team, in order to achieve team goals and objectives. From this it can be deduced that the employee's intention is to accede to other team members in order to foster and enhance team harmony. Hassan *et al.* (2015) concluded that accommodation was the individual member's tendency to be concerned with other team members' needs and views.

Zia and Syed (2015) found that a high concern for other and low concern for self theoretically implied that the resulting accommodating style would be yielding, resulting in individuals in the team compromising to a large extent by accepting differences in the form of one-sided concessions, unreserved promises and becoming more supportive of other individuals.

It can be deduced from the foregoing discussion that the obliging or accommodating conflict handling style is more approachable, welcoming, friendly, sociable and open-minded in nature. In this style, employees will yield to others in order to preserve relationships in the team. The pitfall or downside of this style is that employees could be perceived to be afraid of conflict and being passive and not engaging others in the team.

(c) *Avoiding or withdrawal*

This conflict management style is characterised by the extent to which the individual member will show low concern for self and low concern for other members, while also being both unassertive and uncooperative (Dunnette & Hough, 1992; Thomas & Kilmann, 1992, 2007). Manning and Robertson (2004) stipulated that members employing this conflict handling mode were both less assertive and uncooperative in character. They neither pursued personal goals nor strived to achieve team goals. From this assertion it can be deduced that the members' intention is to delay the achievement of the team goals. Hassan *et al.* (2015) concluded that avoidance was the intentional failure of members to engage with each other by just going with the flow.

Zia and Syed (2015) found a low concern for both other and self theoretically implied that the resulting style will be avoidance. The involved individuals in the team will minimise the significance of their grievances, in an attempt to stifle opinions about the issues.

It can be deduced from the foregoing discussion that the avoiding or withdrawal conflict handling style can basically be described into two ways: effective and ineffective. In the first effective way it would be correct for employees to avoid interpersonal conflict by suppressing their anger which could be construed as unprofessional behaviour by others in the team. The second ineffective way is when employees literally avoid interpersonal conflict in a situation when they ought to engage others in the team environment.

(d) *Integrating or collaborating*

This conflict management style is characterised by the extent to which the individual team member will show high concern for self and the other members, while also being both assertive and cooperative (Dunnette & Hough, 1992; Thomas & Kilmann, 1992, 2007). Manning and Robertson (2004) concluded that employees employing this conflict handling mode were both assertive and more cooperative in character. They tend to work together to find solutions that fully satisfied the underlying concerns of all team members. From this assertion it can be deduced that the team members' intention is to find a win-win solution. Hassan *et al.* (2015) concluded that collaboration is a unifying drive that accommodates the team members' interests and needs.

Zia and Syed (2015) found that a high concern for both other and self theoretically implied that the resulting style will be problem solving. The involved individuals in the team will strive to adopt a collaborative attitude, and will be leaning toward a concurrence that is mutually pleasing, and will achieve team goals and aspirations as much as possible.

According to Thistlethwaite and Jackson (2014), collaborating as a conflict management style, in essence, entails working with the perceived 'enemy'. The healthy work environment should encourage constructive conflict management, and recognising that interpersonal conflict will always arise.

It can be deduced from the foregoing discussion that the integrating or collaborating conflict handling style is the most appropriate and suitable style to foster and enhance team cohesion. Team members' contributions, ideas and opinions are taken into consideration and mutually respected by all toward the achievement of the team's goals. Members show positive attitudes and behaviours and they truly identify with the team.

(e) *Compromising or bargaining*

This conflict management style is characterised by the extent to which the employee will show moderate concern for self and moderate concern for the other members, while also showing a moderate level of assertiveness and cooperation (Dunnette & Hough, 1992; Thomas & Kilmann, 1992, 2007). Manning and Robertson (2004) found that members employing this conflict handling mode endeavour to find mutually acceptable solutions that partially meet the concerns and satisfaction of all the members in the team. From this assertion it can be deduced that the member's intention is to find a middle ground to their differences. Hassan *et al.* (2015) concluded that compromise is achieved when team members arrive at a common solution. This style is appropriately used when a temporary solution is sought (Meier, 2011).

Pandey, Sajjanapu and Sangwan (2015) concluded that the conflict management strategies in Figure 3.1 were based on the dual concern theory, which was primarily a function of concern for others and self, and affected and impacted not only individual members' well-being but also the overall team performance in the workplace

It can be deduced from the foregoing discussion that the compromising or bargaining conflict handling style is demonstrated when employees are moderately both assertive

and accommodative, by being willing to compromise and trade off some of their ideas, beliefs, virtues needs and interests in exchange for getting concessions from other team members.

Hassan *et al.* (2015) summarised the five Thomas-Kilmann (1974) mode instrument conflict management styles as follows:

- Firstly, avoidance occurs when employees intentionally fail to engage other team members.
- Secondly, accommodation occurs when employees are more concerned with other team members' interests and views than with their own.
- Thirdly, competition occurs when employees do not take into consideration the concerns, views and interests of others, and only focus on their own needs and views to dominate other team members.
- Fourthly, collaboration occurs when all employees work toward integrating team members' needs and the interests of all members to the benefit of the team.
- Lastly, compromise occurs when team members strive to find a common ground to address the team's conflicting views and interests.

From the above literature discussion it can be deduced that the three cooperative and assertive conflict handling styles, namely, the collaborating, accommodating and compromising styles are most likely to yield positive and beneficial outcomes to team members. Whereas, the two uncooperative and unassertive conflict handling styles, namely, dominating and avoiding are most likely to result in negative outcomes in enhancing and fostering team cohesion

Some limitation of the Thomas-Kilmann mode instrument were identified by Hassan *et al.* (2015) when they found that interpersonal conflict has been associated with an increasingly negative effect, as well as decreased emotional well-being, and is also linked to social withdrawal. It is the view of the researcher that a gap or opportunity exists to negate the findings by Hassan *et al.* (2015), and it is therefore postulated that employees use interchangeably different conflict management styles to deal with inherent conflict in the workplace, without it negatively affecting their emotional state and being linked to social withdrawal. It is proposed that there is a positive correlation between interpersonal conflict and team cohesion.

The Thomas-Kilmann mode instrument was chosen for this study because of its scientific relevance and proven validity and reliability. The CIBART and Rahim models discussed below were chosen for the study because of their relevancy and complementary nature when compared to various other models in the literature.

3.2.2 The CIBART model

The second conflict management model found in the literature review found to be complementary but not used in the empirical research study is the CIBART model. The CIBART model is a psychodynamic model that has its roots in Freud's theory. The CIBART team development model derives its name from the acronym of the Freudian behaviours, namely, conflict, identity, boundaries, authority, role and tasks. According to this model, conflict is the natural and human condition serving as a driving force for team development, performance, creativity, innovation and coping with change and transformation. It is based on the premise that the inherent conflict will lead to anxiety among team members. Conflict will occur when the team members split between differences. Conflict can manifest itself intra-personally (in team members' ideas and feelings), inter-personally (between two or more team members), intra-team (between faction or sub-groups), and inter-team (between one team and other teams in the larger system or organisation) (Cilliers & Harry, 2012).

The CIBART model is linked to systems theory in its explanations of the relatedness and relationship dynamics in the team environment (Coetzee & Cilliers, 2012). Furthermore, the model is also fundamentally based on the unconscious functioning of members in a team (Geldenhuys, 2012).

The CIBART model was not relevant to this study as systems psychodynamics perspective studied the conscious (rational) and unconscious (irrational) organisational behaviour, that manifests itself on the micro, meso and macro levels, in order to gain deeper insights and understanding of the systems' unconscious functioning. The meso level focuses on the team's behaviour manifesting below the surface or the unconscious (Cilliers & Koortzen, 2005).

Conflict in the psychoanalytical theory is one of the key component that underpins the systems psychodynamic approach (Cilliers & Koortzen 2005). Conflict among team members has been found to be inevitable as the result of members' anxiety and uncertainty in the team or system (Cilliers, Koortzen, 2005). Anxiety is seen as the

system's unconscious driving force intended to contain the fear of the future (Steyn & Cilliers, 2016).

In light of the foregoing discussion although the CIBART model was also relevant. Its psychodynamic paradigm did not best match the study's viewpoint and secondly it was not suited to the current world of business at the financial institution the study was conducted.

3.2.3 Rahim conflict model

Rahim's (2011) styles of handling interpersonal conflict can be compared to Thomas-Kilmann conflict model. The Rahim (2011) conflict model was inspired by the Thomas-Kilmann model. According to Rahim (2011), the model intended to help team members to resolve interpersonal conflict and redirect the team energy to the attainment of team goals and objectives. He maintained that little or the complete absence of conflict in a team may lead to team stagnation.

Nischal and Bhalla (2014) maintained that the Thomas-Kilmann (2007) interpersonal conflict and the Rahim (2011) interpersonal conflict models were influenced by Blake and Mouton's (1964) managerial grid to manage conflict in organisations. They found that both models were developed to measure five styles on interpersonal conflict, namely, accommodating, collaborating, compromising, avoiding and competing.

Nischal and Bhalla (2014) found that there is no organisation that is free of interpersonal conflict. They maintained that interpersonal conflict was an integral part of a team's functions. Although constructive team conflict was not necessarily bad, management practices promoting excessive conflict may lead to unproductive outcomes (Coggburn, Battaglio & Bradbury, 2014).

The Rahim model (2011), depicted in Figure: 3.2 below, is similar to the Thomas-Kilmann model (2007). The difference according to Rahim (2011), as quoted by Yildirim, Akan and Yalcin (2015), is that the Rahim model interchangeably uses the Thomas-Kilmann collaborating management style as the integrating or problem-solving management style. For the purpose of this research study, the Thomas-Kilmann model was chosen as the classical model for conflict management.

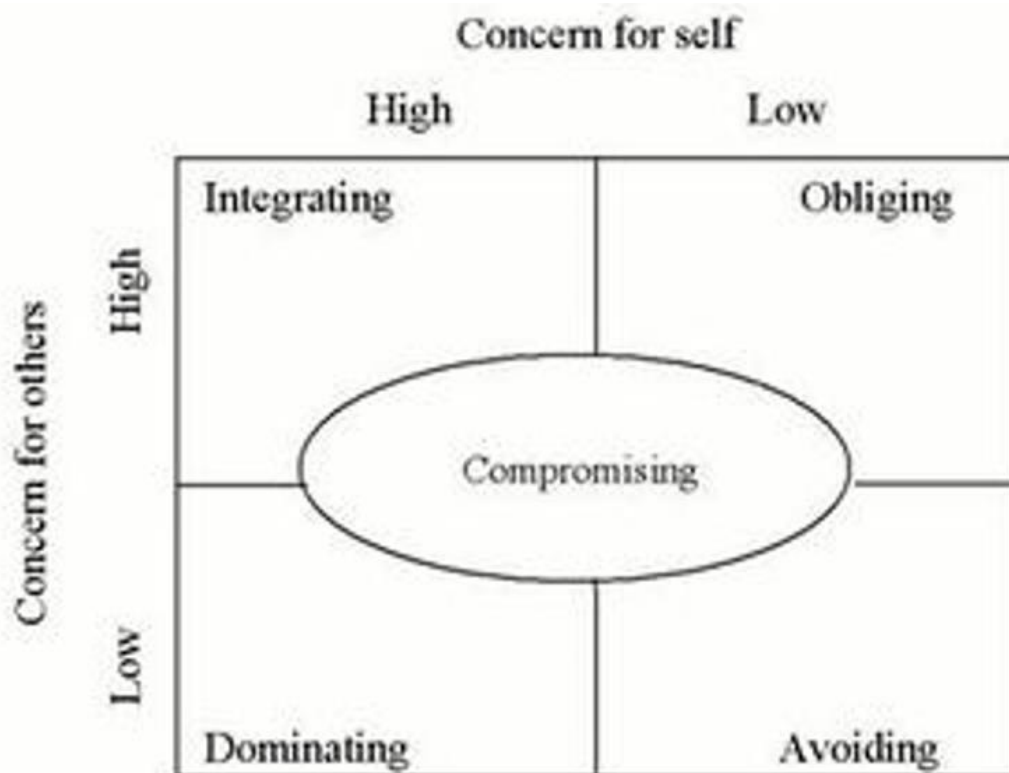


Figure: 3.2
Rahim conflict management model

Source: Rahim, 2011

In conclusion, there are similarities between the Rahim conflict model and the Thomas-Kilmann model, in terms of their strengths and focus on the five clearly defined conflict handling styles or constructs, namely, competing, avoiding, compromising, accommodating and collaborating. However, the Thomas-Kilmann conflict model was chosen for its historical comprehensive framework of conflict management and its relevance in a competitive financial environment. The CIBART model main limitation was that conflict was categorised or incorporated as one of the other five related psychodynamics constructs.

3.3 TEAM COHESION

In the second part of this chapter, team cohesion and its dimensions will be conceptualised and discussed, followed by a discussion of the relevant theoretical models, the biographical variables, and leadership and communication factors influencing team cohesion. A discussion will follow of the research on team conflict management and team cohesion, evaluation and the practical implications to the study

of Consulting Psychology, Industrial and Organisational Psychology and human resource management.

3.3.1 Conceptualisation of team cohesion

Team cohesion is defined in an open system perspective, as more than the sum of the members, and it is characterised by its unique lifespan, collective soul, team mind, a common mode of feelings, and mutually reciprocal influence among members (Bruhn, 2009). Team members feel that their individual efforts and initiatives are appreciated (Engleberg & Wynn, 2012). Teamwork has become central to business operations in modern organisations, where members from diverse backgrounds, such as race and culture must work together, in order to develop the well-rounded decision-making organisation and to survive the global contemporary economy (Johnson, 2016).

The substance of team cohesion therefore lies in the interdependence of individual team members. The team is always the dynamic whole, and any change in one subsystem will affect the state of the other subsystems (Bruhn, 2009). Furthermore, the degree of cohesiveness depends on the team size and the intimacy of the team members. Team members strongly believe that their contributions are essential to the success of the team. Members take pride in their responsibilities, and frequently pronounce statements that stress each individual member's role, rather than individuals taking credit for success, a cohesive team will emphasise team work and team accomplishments (Engleberg & Wynn, 2012). In essence, cohesion refers to the forces that bind the members to each other and their team (Guzzo & Shea, 1992).

The definition of team cohesion developed by Banwo *et al.* (2015) was expanded on by Guzzo and Shea's (1992) binding force definition. Banwo *et al.* (2015) categorised the construct as consisting of the total internal and external forces impacting on the individuals' commitment to remain in the team. Team cohesion is the dynamic process that keeps team members together and is bonded by their united pursuit to achieve its goals and institutional objectives. (Carron, Brawley & Widmeyer, 1998). Johnson (2016), however, warned that team cohesiveness may lead to groupthink. Janis (1971) explained groupthink as the deterioration of the team members' cognitive efficiency, reality testing and moral judgment that may result from team pressure on individual members.

According to Bruhn (2009), the definition of the concept 'team cohesiveness' has evolved over time. Cohesion is not a static but a dynamic process. Tuckman (1965) earlier defined the team cohesion dynamic process in successive stages, and asserted that when team interpersonal conflict waned, the feeling of cohesion was increasing among members. Bruhn (2009) described cohesion as the contagious feeling of solidarity of the crowd leading to uniformity of action. Cooley (1909), as quoted by Bruhn (2009), defined cohesion as the sharing of team members' personal and enduring relationships. According to Bruhn (2009), Freud (1921) found that intense emotional ties among members represented the social bonds of the team (Bruhn, 2009). Cohesive teams establish a climate in which praise is encouraged (Engleberg & Wynn, 2012).

Carron (1982) defined team cohesiveness as the dynamic process reflected in the group tendency to stick together and to remain united in the achievement of its goals and objectives. This was confirmed by the findings of Wongpakaran *et al.* (2013) that members' team cohesion was demonstrated by the members' attraction to each other and their subsequent engagement to achieve the team goals. Members of a team that have been together for longer periods tend to exhibit a higher degree of team cohesiveness (Schultz & Schultz, 1994). Forsyth (2010) concurred with Schultz and Schultz (1994) that team cohesion is the attraction and relation among members in the team for the entire life of the team.

Maynard, Kennedy and Sommer (2015) found that team cohesion was a team's inherent capacity to adapt, and postulated that team adaptation processes were the result of a team that included the option of adapting, or not adapting, to the team's processes at all. Zoltan and Vancea (2016) described these processes as establishing norms and standards.

Team cohesiveness is the 'cement' that holds team members together and maintains the interpersonal relationships (Bruhn, 2009). According to Kim, Magnuses and Andrew (2016) team cohesion was often called 'team chemistry' as it was seen to be the critical element for team success. Therefore, a team that lacks cohesion was less creative, productive and satisfied (Engleberg & Wynn, 2012). Consequently, the emergence of team cohesion led to the formation of team identity and the members' commitment to remain part of the team (Kozlowski & Chao, 2012). It is the 'we feeling' that bind members together (Myers, 2010). Luthans (2011) concurred with Myers

(2010) that team cohesiveness is the 'togetherness' or camaraderie and conscious effort among members leading to team performance and job satisfaction.

Team cohesion can be classified into two categories. That is, interpersonal or social cohesion and task cohesion. Social cohesion is the members' attraction to the group and it includes the established positive relationships among members. On the other hand, the task cohesion is concerned with members' attraction to the group because of the shared commitment to the group's task (Van Vianen & de Dreu, 2001). Kozlowski and Chao (2012) concurred with Van Vianen and de Dreu (2001) that the emergent state of team cohesion was infused by the members' overt behaviour, affective and emotional forces.

Kim *et al.* (2016) maintained that team cohesion includes both the team integration task and team integration social dimensions. Engleberg and Wynn (2012) defined team cohesion as the mutual attraction that holds members of the team together. According to them cohesive teams are characterised by the following attributes:

- High levels of interaction;
- A supportive communication climate;
- A desire to conform to team expectations;
- The use of creative and productive approaches; and
- Satisfied members.

Hysa (2016) concurred with Van Vianen and de Dreu (2001), and Engleberg and Wynn (2012) that members' attraction to the team was the basic ingredient towards the enhancement of group cohesiveness. Furthermore, Hysa (2016) cited Forsyth's (2010) difficulty in defining the construct because 'cohesiveness' takes so many different forms and fulfils so many functions that some theorists have complained that the concept, ironically, lacks 'cohesion'. Hysa (2016) concluded that the greater the members attraction to the group, the higher the group membership continuity and adherence to the group norms and standards.

It is important to note that the construct team cohesion is broad and has developed over time. Team cohesion plays a crucial role in this research study, since the three independent variables, self-worth, personality preferences and conflict-management styles are directly linked to team cohesion (dependent variable).

3.3.2 Historical development of the team cohesion construct

Hysa (2016) provided a comprehensive literature review, as presented in Table: 3.1 below, on the theory development definitions of team cohesion from the social perspective to the task perspective:

Table: 3.1
Summary of The historical development of team cohesion construct definitions

Author/s	Year	Definition	Perspective
Festinger	1950	Team cohesiveness was described as the reciprocal mutual attractiveness between the individual to the team and the team members' attractiveness to the team as a whole.	Social perspective
Maslow	1954	Team cohesiveness cannot be understood without members' interaction and the overall need for the sense of belongingness.	Social perspective
Tuckman	1965	Described team cohesion as consisting of four stages, namely forming, storming, norming and performing. The last stage adjourning was later added by Tuckman and Jensen (1977).	Social and task perspective
Carron	1982	Team cohesion is the degree to which members who share similar and complementary backgrounds work together to achieve common goals.	Social and task perspective
Dion	2000	Concurred with Festinger (1950) that team cohesion is enhanced by the members' attraction to individuals with similar values, mentality and background.	Social perspective
Bruhn	2009	Team cohesion lies on the interdependence of individual members, and change in one subsystem affects the state of other subsystems.	Social and systems theory perspective
Forsyth	2010	Team cohesion is the attraction and relation between individual members and the team throughout the life of the team as they transform into one cohesive team.	Social perspective
Myers	2010	Team cohesion is the 'we feeling' that attracted members to the team.	Social perspective
Luthans	2011	Team cohesiveness is the 'togetherness' and conscious effort among members leading to team performance and job satisfaction.	Social and task perspective
Engleberg & Wynn	2012	Team cohesion is the force that binds the team members together in order to be creative, productive and satisfied.	Social and task perspective

Author/s	Year	Definition	Perspective
Wongpakaran <i>et al.</i>	2013	Wongpakaran <i>et al.</i> 's (2013) findings are that members' team cohesion is demonstrated by members' attraction to each other and their subsequent engagement to achieve the team goals.	Social and task perspective
Banwo <i>et al.</i>	2015	Team cohesion is characterised by the members' commitment to remain in the team and is bonded by the common desire to achieve team goals.	Social and task perspective
Maynard <i>et al.</i>	2015	Team cohesion is the team's inherent capacity to adapt to new circumstances. They found a positive correlation between cohesion and work performance.	Social and task perspective
Hysa	2016	Team cohesiveness is evident in members sticking together and being productive and satisfied in achieving the team and organisational goals.	Social and task perspective
Zoltan & Vancea	2016	Team cohesion is a united team that develops closely related to the team's normative system to accomplish common goals. Interpersonal conflicts are resolved constructively.	Social and task perspective
Kim, Magnuses & Andrew	2016	Team cohesion is the 'team chemistry' essential for team success.	Social and task perspectives

Source: Adapted from Hysa (2016)

For the purpose of this research, the definitions for team cohesion by Wongpakaran *et al.* (2013) and Kim *et al.* (2016) were found to be relevant due to their respective theoretical demonstration of members' attraction to each other and their engagement to achieve the team goals.

It can be deduced from the team cohesion definition by Wongpakaran *et al.* (2013) that it is founded on Maslow's (1954) motivation theory of the basic fundamental human needs of emotional security and sense of belongingness. Maslow (1954) argued that team cohesiveness cannot be understood without members' interaction and overall need for the sense of belongingness.

The definition complements the research study in its emphasis on the individual team members' degree of attraction, loyalty and cooperativeness to achieve the team goals and objectives, that will ultimately contribute to the organisational global competitiveness and effectiveness. Furthermore, creating a sustainable competitive

advantage through cohesive teams will be demonstrated in the construction of a conceptual team cohesion psycho-social model.

The second integrative team cohesion definition by Kim *et al.* (2016) of maintenance-based and task-based team cohesiveness is also relevant to this study. Maintenance-based cohesion is all the forces that attract and bind members to remain in the team, including liking, psychological and motivational needs. Task-based cohesion is all the team members' activities and processes to achieve common goals.

The theoretical foundation of the theory developed by Kim *et al.* (2016) is based on the classical motivation theory of McClelland. Yusof and Carpenter (2015) defined motivation as an innermost desire or condition that elicits certain attachment behaviour. Yusof and Carpenter (2015) concurred with McClelland's needs theory, that every individual possesses one of the three driving motivators, namely, the need for achievement (nAch), the need for power (nPow) and the need for affiliation (nAff). Individuals with high affiliation needs prefer established good relationships with others, and have the desire to get others' approval. This is evident in their strong sense of belongingness in the team environment (Yusof, & Carpenter, 2015).

In the 1950's the construct team cohesion was defined using only the social perspective. From the 1960's team cohesion was developed and further defined to include both the social and task perspectives. The comprehensive historical of the team cohesion construct has been summarised in table: 3.1.

It can be deduced from the adapted team cohesion definitions by Wongpakaran *et al.* (2013) and Kim *et al.* (2016) that cohesiveness and the individual's engagements are important in order to accomplish team goals. Cohesiveness cannot be understood without the members' interaction and overall need for the sense of belongingness. These definitions complement the research study in its emphasis on the individual team members' degree of attraction, loyalty and cooperativeness and effectiveness.

In light of the foregoing discussion, it is the view of the researcher that the team cohesion construct can be defined as the psycho-social dynamic forces within and outside individual members, who share the same background, vision, attitudes and belief systems, work together and are attracted to achieve the goals of the team. Throughout the historical development of the construct as depicted in the above Table: 3.1, the focus has been on social cohesion and task cohesion perspectives. The

contribution of this research study towards the conceptual development of the team cohesion construct is the inclusion of the psycho-social perspective.

In the next section the dimensions of team cohesion will be discussed.

3.3.3 Dimensions of team cohesion

Many authors listed in Table: 3.1 above postulated the team cohesion construct as being historically categorised into two main dimensions, namely, task and social dimensions. The task dimension indicates the members' capacity to engage and work together to accomplish team goals and objectives. Whereas, the social dimension reflects the degree to which members like each other. Wongpakaran *et al.*(2013) succinctly summarised the items that form part of the two dimensions as, acceptance and sense of belongingness, mutual trust, caring and liking, understanding of team objectives, sense of participation, adherence to team's norms, and emotional safety.

For the purpose of this study, the degree of team cohesiveness (maintenance-based cohesion) and engagement (task-based cohesion) in teams will be measured using the team cohesion scale as discussed below which was developed by Wongpakaran *et al.* (2013).

Furthermore, Wongpakaran *et al.* (2013) maintained and recommended that team cohesion is a significant study in teams to understand the individual interpersonal relationships dynamics and the team members' engagement and that further research into the field is needed. Wongpakaran *et al.* (2013) operationalised the team cohesion construct in the development of the seven-point Likert scale ranging from 'strongly disagree' (1) to 'strongly agree' (7) which was adapted for this study and that incorporated the seven dimensions (Wongpakaran *et al.*, 2013), namely, acceptance and sense of belongingness, mutual trust, caring and liking, understanding of team objectives, sense of participation, adherence to team's norms, and emotional safety, as briefly discussed below.

3.3.3.1 Acceptance and sense of belongingness

Acceptance and sense of belongingness develop at the initial development of the team, as members begin to know each other. This is evident when members start to exchange personal information and become acquainted with each other (Tuckman, 1965; Wongpakaran *et al.* 2013; Zoltan & Vancea, 2016; Kim *et al.* 2016).

Luthans (2011) found the acceptance and sense of belongingness dimension related to Maslow's motivational level of belongingness or social needs, and acceptance of team's core norms, values and goals.

3.3.3.2 Mutual trust

Interpersonal conflict in teams is necessary for the establishment of trust among members (Wheelan, 2005). Therefore, trust provides a favourable climate and opportunity for team members to feel free to engage and disagree with each other. Kugler, Bornstein, Kocher and Sutter (2007) found that trust between individuals and team was essential for the successful accomplishment of team goals. From the foregoing finding it can be deduced that trust plays an important role in teams. Trust was part of the emotional support that also included empathy, love and concern (Wongpakaran *et al.*, 2013; Hassan *et al.*, 2015). However, high mutual trust could lead the team to be less vigilant and thus less able to protect itself (Luthans, 2011).

3.3.3.3 Caring and liking

Hassan *et al.* (2015) found that members' social support was based on their belief that they were cared for and loved, esteemed and valued, and consequently belonged to the team. When caring and liking occur the initial mistrust disappears and the team is united in their mutual trust and acceptance, and this entails interpersonal awareness and caring for each other (Wongpakaran *et al.*, 2013; Zoltan & Vancea, 2016; Kim *et al.*, 2016). Mutual liking, friendliness, cooperation and motivation in accomplishing team tasks are key components of highly effective teams. In essence, caring and liking can go a long way in motivating team members (Luthans, 2011).

3.3.3.4 Understanding of team objectives

The team members' understanding of objectives is reflected in Carron's (1982) team cohesion definition that a team will always remain united in pursuit of its goals and objectives. This is evidenced when members fully interact with each other and strive to achieve the common goals and objectives for which the team was established (Wongpakaran *et al.*, 2013; Zoltan & Vancea, 2016; Kim *et al.*, 2016). According to Canevello, Granillo and Crocker (2013), the team's compassionate goals lead to increased feelings of cooperation, peace and clarity in members' relationships. The understanding of the team objectives greatly affect the quality of decisions made by the team (Luthans, 2011).

A group becomes a team when members share commitment and compassionate goals, by being supportive, constructive and creating a win-win situation (Canevello *et al.*, 2013).

3.3.3.5 Sense of participation

The sense of participation is evident when the team is effective and working interdependently to address pertinent issues linked to all the tasks that need to be accomplished. (Wongpakaran *et al.*, 2013; Zoltan & Vancea, 2016; Kim *et al.*, 2016). Chen and Lin (2016) concurred with Wongpakaran *et al.* (2013) that team members who share mutual responsibilities greatly influence their organisational outcomes, competitiveness advantages and profits. The sense of participation entails intellectual, emotional and physical involvement (Luthans, 2011).

3.3.3.6 Adherence to team norms

Locke, Latham and Erez (1988) found that cohesive teams were effective in developing and enforcing team norms. The interaction of team members was characterised by positive qualities such as being praiseworthy, self-justifying and self-glorifying. The adherence to team norms helped the members to reconcile personal sacrifices brought about by their team membership (Luthans, 2011). Members developed these qualities by internalising the team norms to deal with individuals who were in the paradoxical nature of being either being cooperative or disruptive (Sherif 2015).

The cohesive forces that bind the team together are enhanced by the members adherence to the team's norms (Wongpakaran *et al.*, 2013; Zoltan & Vancea, 2016; Kim *et al.*, 2016). In light of the foregoing discussion, this is normal during the storming stage, as described by Tuckman (1965) and Tuckman and Jensen (1977) in their team cohesion definition. This storm is addressed and calmed down by the establishment of team norms during the Tuckman (1965) and Tuckman and Jensen (1977) norming stage.

Brock *et al.* (2017) concurred with the original classical theory of Tuckman (1965), and Tuckman and Jensen (1977) that individual interpersonal conflict during the storming stage is an important aspect in teamwork, and also builds an environment of honesty and mutual trust.

3.3.3.7 Emotional safety

Griffith (1988) found that cohesiveness within the team is a source of emotional support and satisfaction. The emotional safety entails the sharing of sensitive personal information among team members (Wongpakaran *et al.*, 2013). This is evident when the team demonstrates emotional maturity, as members' freely express and reveal personal feelings (Zoltan & Vancea, 2016). This dimension is related to Maslow's level of safety needs, which is roughly equivalent to physical safety.

3.3.4 Theoretical models of team cohesion

Various theoretical models regarding team cohesion are identified in the literature, but only a few will be included and discussed in this section, namely, the Carron (1982) team cohesion, Tuckman's (1965) team cohesion, and the Wongpakaran *et al.* (2013) team cohesion models. The researcher found these models to be relevant to this study. The Wongpakaran *et al.* (2013) model was considered for its scientific and paradigmatic boundaries relevant to this study.

3.3.4.1 Carron's team cohesion model

Team cohesion is a dynamic process that is evident in the team members' tendency to stick together in unison to achieve common goals and objectives (Carron, 1982). Carron's team cohesion model was developed to measure team cohesion in different teams and contexts, such as sports teams, military units, fraternities and friendship teams (Carron, 1982).

Later on Carron *et al.* (1998) revised the definition of team cohesion as a fundamentally multidimensional, instrumental, dynamic, emotional or affective team property. Team members were attracted and integrated into the team to achieve both task performance and social orientations. The social cohesion component related to the degree to which members interacted with each other within the team. On the other hand, the task cohesion component related to the members' united stand to accomplish common team goals and objectives (Carron *et al.*, 1998).

Carron (1982) identified four factors essential for team cohesion to develop. The first is environmental factors that included, amongst others, the size, age, location, contractual responsibility and organisational orientation. Secondly, personal factors, that included, amongst others, the team members' desire and belief to win and excel, social background, personality preferences, gender, attitudes, individual orientation,

satisfaction and individual differences. Thirdly, leadership factors, this included, amongst others, the influence of the leader's influence in fostering team identity, communication and leadership style. According to Carron (1982) team members developed close bonds under a democratic leadership, as opposed to an autocratic leadership style. Lastly, team factors that included the team as a whole, its unique identity, the setting of performance targets, the individual team member's role in achieving common goals, team orientation, team stability, team productivity, norms and standards.

The initial Carron (1982) team cohesion model framework, graphically depicted below in Figure: 3.3, comprised both the individual's attraction to the team and the team integration levels of analysis, further subdivided into social and task components.

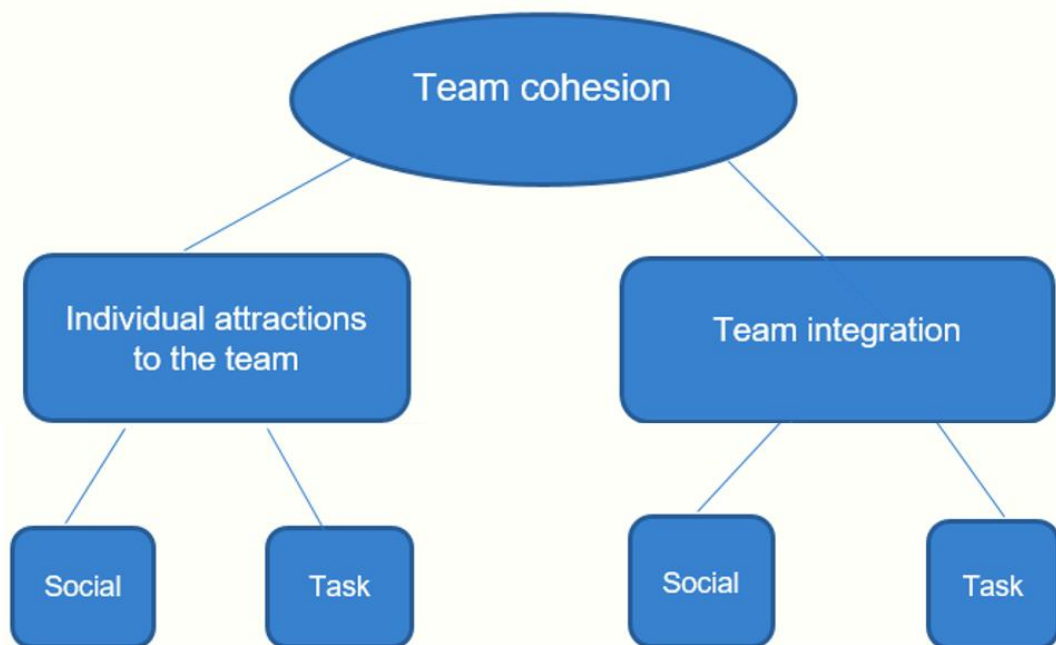


Figure: 3.3
Conceptual model of team cohesion for sports

Source: Carron (1982)

The researcher is of the view that that the Carron model is also relevant to this study. Research has shown that Carron's (1982) team cohesion was positively correlated to significant individual and team variables, such as work performance, efficacy and job satisfaction. However, the criticism of the model was that the model postulated that interpersonal conflict was the antithesis of team cohesion, and members who perceived low team cohesion are likely to avoid disagreements and tended to assume

that conflict can only be a negative team dynamic (Carron, Brawley & Widmeyer, 1988; Carron & Hauseblas 1998).

Sullivan and Feltz (2001) concurred with Brawley *et al.* (1988) and proposed the multidimensional approach to understand both interpersonal conflict and team cohesion, after they found that interpersonal conflict was positively related to some aspects of team cohesion.

In light of the foregoing discussion and criticism of the Carron (1982) model, it can be deduced that constructive interpersonal conflict and team cohesion can be perceived as being the same thing.

3.3.4.2 Tuckman's (1965) team cohesion model

The original Tuckman team cohesion model consisted of four stages of team development, namely, forming, storming, norming and performing (Tuckman, 1965). Later, after intensive research, the fifth stage of 'adjourning' was added to the model (Tuckman & Jensen, 1977). Zoltan and Vancea (2016) concurred with Tuckman and Jensen (1977) that the model was developed over many years in the discipline and theory of organisational behaviour. The five stages of Tuckman's team cohesion model are discussed below.

Setting up stage (forming)

The forming stage was characterised by team members' uncertainty (Tuckman, 1965; Tuckman & Jensen, 1977). The members enter the stage with different agendas, ideas, work styles (Tuckman & Jensen, 1977; Spiegel & Torres, 1994). Zoltan and Vancea (2016) asserted that the first stage of team development is characterised by members expressing anxiety, confusion, uncertainty, and testing the boundaries of interpersonal and task behaviours.

At this stage the team members emotional instability may be heightened by self-related concerns impacting negatively on the members' overall pending task performance (Rink & Ellemers, 2015). However, team members are motivated and enthusiastic to accomplish the team goals (Tuckman & Jenson, 1977; Weaver & Farrell, 1997; Whichard & Kees, 2006). The duration of this phase depends on many factors, such as, team composition, management accountability and the tasks that have to be accomplished. This stage can be shorted if the leader is an extrovert and creates a favourable interaction environment within the team (Zoltan & Vancea, 2016).

Conflict stage (storming)

The storming stage was characterised by the team members' development of confidence amongst themselves (Tuckman, 1965; Tuckman & Jensen, 1997). Zoltan and Vancea (2016) maintained that the second stage of team development is characterised by members' tension, hostility, intense conflict and polarisation around interpersonal issues. The emergence of subgroups and alliances are prevalent. The duration of the transition stage can be shortened when the team adopts an assertive, open and transparent communication style.

Most teams dissolve at this stage as they struggle to deal with the competitiveness among members for influence and a strong resistance to the development of team cohesion (Harris & Sherblom, 2011). From the above it can be deduced that interpersonal conflict escalates, and members will attempt to either avoid or suppress conflict, or resort to compromising their differences and competing issues, and work towards building team harmony.

Cohesion stage (norming)

The norming stage was characterised by team members' concern about being different, and their eagerness to be a united unit (Tuckman, 1965; Tuckman & Jensen, 1997). Zoltan and Vancea (2016) found that this stage of team development is characterised by the development of team cohesion, and norms and rules are set and strictly adhered to to resolve emerging conflict. Resistance is overcome and new roles are adopted. Weaver and Farrell (1997) found that team conflict decreases during this stage, and members start to resolve their differences in order to accomplish team goals.

During this stage, members experience both team effectiveness and high organisational effectiveness (Katzenbach & Smith, 2003). Members tend to trust each other and competition is functional and beneficial to the team. Cashmore (2003) found that cohesion transformed individuals into a unified unit in pursuit of common goals.

During the norming stage, team conflict decreases as members resolve their differences to achieve the team goals (Tuckman & Jensen, 1977; Weaver & Farrell, 1997). Furthermore, this stage is characterised by members clarifying their responsibilities and roles, gradually shifting from interpersonal relationships to decision-making activities intended to accomplish team goals (Jones & George, 2009).

Mutual respect, trust and team harmony, and team cohesiveness are enhanced (Harris & Sherblom, 2011; Whichard & Kees, 2006).

According to Stone and Redmer (2006), members feel trusted and appreciated, as they set high standards of discipline. Teams with poor self-discipline will struggle to cohere, cooperate and perform. Tuckman described this stage as the blue sky arising after the storm (Zoltan & Vancea, 2016).

Effectiveness stage (performing)

The performing stage was characterised by team members' concern and dedication to achieve the team's goals and objectives (Tuckman, 1965; Tuckman & Jensen, 1977). Zoltan and Vancea (2016) posited that the fourth stage of team development is characterised by the mutual spirit of members who are harmonious, voluntary and effectively working together as a united team for a common purpose. There is a high degree of maturity, synergy and interdependence in the team. The team's energy is channelled towards the achievement of tasks.

Dessler (2004), as quoted by Zoltan and Vancea (2016), described members at this stage as displaying the maximum engagement towards the achievement of the team's objectives and tasks. Interpersonal conflict among members is resolved without experiencing the negative consequences that were common during the earlier stages (Jones & George, 2009). The team performance is optimal and members have fully adapted to the organisational structure (Zoltan & Vancea, 2016).

Dismantling stage (adjourning)

The adjourning stage was characterised by team members' disengagement of relationships and the team had achieved its goals (Tuckman & Jensen, 1997). The final stage of team cohesion development, according to Zoltan and Vancea (2016), is characterised by the suspension or termination of the team after the goals and objectives have been achieved. At this stage, members start to emotionally detach from the coherent team and return to engage in other tasks (Zoltan & Vancea, 2016).

During the adjourning stage, team members are engaged in the activities of wrapping up the team tasks that have been accomplished (Draft & Marcic, 2009). Curseu (2007), as cited by Zoltan and Vancea (2016), concluded that Tuckman's team development model, as graphically depicted below in Figure 3.3, was not mandatory. The model was also general in its description of the team's development and processes over time.

There are great similarities between Carron's (1982) team cohesion model and Tuckman's (1965) team cohesion model, and they both emphasise that teams develop through four stages, namely, forming, storming, norming and performing, (with Tuckman adding a fifth stage to his model much later).

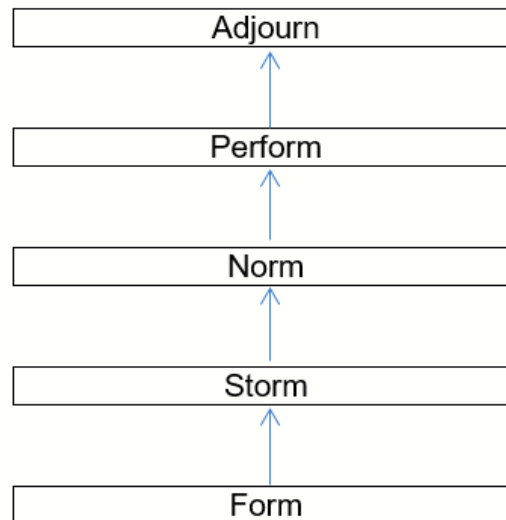


Figure: 3.4
Tuckman's 5-stage model of team development

Source: Tuckman, 1965, Adapted from Tuckman & Jensen (1977:419 - 427 revised the model)

3.3.4.3 Wongpakaran Group cohesion scale (GCS)

According to Wongpakaran *et al.* (2013), the team cohesion scale is relevant as its underlying principles allows the Industrial and Organisational Psychologist in the consulting field to study the construct of team cohesion in a socially embedded context pertaining to the ongoing function of teams in the workplace. Wongpakaran *et al.* (2013) recognised team cohesion as a multidimensional construct in which attraction is just one factor. Furthermore, Wongpakaran *et al.* (2013) concluded that cohesion and engagement were closely intertwined and interchangeable.

The Wongpakaran *et al.* (2013) team cohesion scale was chosen and used in this study, because the scale has shown good internal consistency and concurrent validity in predicting team cohesion outcomes. Burlingame *et al.* (2011) also found that the team cohesion measuring scale has great predictive validity and internal consistency. In addition, the scale contextualises the social dimension of team cohesion as being affective cohesion, and the task dimension as being behavioural cohesion. The affective cohesion includes feelings of acceptance, trusting and liking. The behavioural

cohesion includes levels of participation, 'reasoning out', doing acceptable things and 'opening up' (Burlingame *et al.*, 2011).

The Wongpakaran *et al.* (2013) team cohesion framework is graphically depicted in Figure: 3.5.

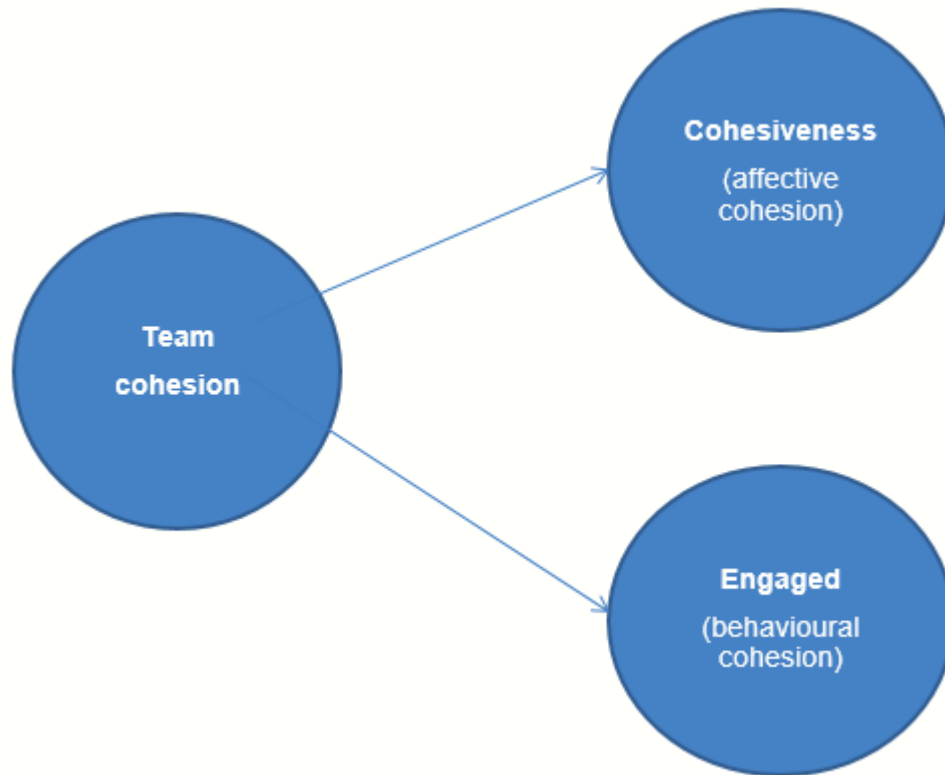


Figure: 3.5
The Wongpakaran team cohesion model

Source: Adapted from Wongpakaran *et al.* (2013)

There are great similarities between Carron's (1982) team cohesion model and Tuckman's (1965) team cohesion model as they both emphasise that teams develop through four stages, namely, forming, storming, norming and performing.

However, the Wongpakaran team cohesion model was chosen for this study due to its uniqueness in integrating the constructs cohesion and engagement so that they become interchangeable.

3.4 BIOGRAPHICAL VARIABLES AND EXTERNAL FACTORS INFLUENCING CONFLICT AND TEAM COHESION

This section will first discuss the socio-biographical factors of race, age, gender, educational level, and job tenure in terms of the influence they have on conflict and

team cohesion. Thereafter, a range of external factors influencing conflict and team cohesion will be discussed.

3.4.1 Socio-biographical factors

3.4.1.1 Race

After the end of the Apartheid era in South Africa the labour market was racially divided, where skilled labour was reserved for Whites, and unskilled labour reserved for Africans. The post-Apartheid government sought to address this racial divide by passing the Employment Equity Act (Maisonave, Decaluwe & Chitiga, 2016). The government's affirmative action programmes were implemented to redress the racial disparities of the Apartheid policies by affirming labour and economic opportunities for Africans, Indians and Coloureds which they would otherwise not have had access to (Alexander, 2007).

These post-1994 employment relations legislation implemented by the South African government invariably impacted the organisational processes and practices, and this included race relations. Ferreira and Coetzee (2010) found that the levels of self-worth of white employees in organisations were significantly higher than that of their African counterparts. However, Bowling *et al.* (2010) found that socio-biographical variables, such as race, had no significant impact on employees' self-worth.

Boateng and Adams (2016) found race positively related to interpersonal conflict and cohesion among professionals in the workplace. Wale (2014) maintained that South Africans who enjoyed higher living standards socialised with other race groups more often when compared to those with lower living standards. She found that 68% affirmed to always socialising with other race groups, and 32 % (of which Blacks were in the majority) affirmed that they never socialised with other racial group. Race relations in South Africa has improved since the end of the Apartheid regime. A substantial number of Coloureds and Indians were found to accept the country's diversity when compared to Africans and Whites (Alexander, 2007).

Thompson and Akbar (2003) presented a socio-political definition of race as being inclusive Blacks, namely Africans, Coloureds and Indians as a racial group, and Whites as a dominant group during the previous struggle against oppression and domination. The Apartheid political and social system shaped both black and white employees in different ways (Chrobot-Mason, Ruderman, Weber & Ernst, 2009). According to

Nkomo and Kriek (2011), racial segregation and its historical effects still haunt employees in South Africa.

According to Curry (2000), past and historical experiences of a society inform and shape the way societal organisations relate to certain issues. For instance, in South Africa race has played a significant role in organisational processes (Thompson, 2001). Despite the end of Apartheid taking place in 1994, South Africa remains a racialised society (Posel, 2015). In a study conducted in South Africa, Amoateng (2016) found that 28% of Whites, aged 16 to 24 years, were of the view that race relations in South Africa had improved.

3.4.1.2 Age

A study by Boateng and Adams (2016) conducted in a nursing environment found that age was positively linked to interpersonal conflict among younger and older nurses. Younger nurses reported of being bullied by older nurses. In another study Wale (2014) found that age was not significantly positively related to interpersonal relations.

Wenner and Randall (2016) found that during the Erikson generativity stage of psycho-social human development (middle and late life), the individual's age moderated the relation between cohesion and pro-social behaviour in older adults, but not in middle-aged adults. Generativity is the seventh stage of Erikson's eight psycho-social stages of development. According to Ehlman and Ligon (2012) adults in the generativity stage are generally concerned with establishing and guiding the next generation of workers.

Wenner and Randall (2016) found that there are three salient stages during adulthood. In the early and middle adulthood stages the individuals demonstrate care and involvement in generative acts for future generations (Wenner & Randall, 2016). In the older and later life stage during retirement (around 65 years of age) adults had retired from active occupation, and were looking back at their lives with a sense of fulfilment, while adults who had unfulfilled careers would look back with a sense of despair (Wenner & Randall, 2016).

The young adulthood is the age from 18-29 years (Arnett, 2004), and a study by Michaeli, Dickson and Shulman (2016) found that young adults in the early career stage experience difficulties in adjusting to the work setting. They may find a job, decide on an occupation, renounce it later, or pursue a different occupation after undergoing new training (Arnett, 2004).

Coetzee, Bergh and Schreuder (2010) explained the entry and establishment life or career stage as the period between 25 to 40 years, with a mean average of 32 years. The middle and late life stages are characterised by adults becoming more stable as they settle down and show commitment to their organisations, and start to contribute to their chosen occupation (Greenhaus, Callanan & Godshalk, 2010).

Robinson, Demetre and Litman (2016) found that adults during the periods of Erikson's psycho-social developmental crisis relate positively to inquisitiveness and negatively to a felt sense of authenticity. Employees' engagement in their organisations decline when they reach 60 years, specifically when compared to younger employees (Robinson, 2007).

3.4.1.3 Gender

Gender is a multi-faced concept (Thorne, 2001) categorising what it means to be a man or a woman (Chen, 1999). The commonly-held view is that sex is a biological concept, whereas gender is a concept related to femininity or masculinity (Syed & Murray, 2008).

A study by Fihlo, Dobersek, Gershgoren, Becker and Tenenbaum (2014) that examined personal factors across cultures on the relationship between team cohesion and team performance found that gender was an important moderating factor. Females were found to prioritise a higher sense of cohesion when compared to males.

Wale (2014) found no significant relationship between gender and interpersonal relations. Amoateng (2016) concurred with Wale (2014) that the gender of respondents was insignificant regarding their sense of belongingness in the country and their acceptance of diversity attributes. However, the study conducted by Ferreira and Coetzee (2010) found gender to have moderated and affected employees' self-worth.

3.4.1.4 Educational level

Orth *et al.* (2010) found that employees with higher educational levels displayed higher levels of self-worth. Leary and Baumeister (2000) concurred with Orth *et al.* (2010) when they also found a positive correlation between employees' higher education levels and their self-worth. However, Bowling *et al.* (2010) found no relationship between educational level and self-worth.

Furthermore, studies showed that employees with higher educational levels were committed and had no intention of leaving their organisations (Al-Ahmadi, 2014)

According to Jung, Nam and Lee (2016), professional employees with postgraduate qualifications had a great sense of team cohesion and improved team performance.

3.4.1.5 Job tenure

Jung *et al.* (2016) found a significant positive correlation between job tenure among Research and Development professionals and team cohesion. They found that 43% of these employees had been employed for five to nine years, 30% for 10-14 years and 27% for more than 15 years. Stotegraap and Atuahene-Gima (2011), Bunderson and Boumgarden (2010), as quoted by Jansen, Kostopoulos, Mihalache and Papalexandris (2016), found that teams that had existed for longer were more structured, coordinated and effective.

The study conducted by Karatepe and Agbaim (2012) identified job tenure as a biographical variable for empirical studies. In this study, job tenure is regarded as a moderator variable in the relationship between and among self-worth, personality preference, conflict management and team cohesion.

Ching-Fu and Ya-Ling (2013) confirmed that job tenure and work engagement were positively and significantly related to work performance. The more experienced employees were found to perform substantially better when compared to inexperienced employees. However, Albdour and Altarawneh (2014) found no significant difference between job tenure and employees' work engagement in organisational processes.

3.4.1.6 Job level

According to Cantimur, Rink and van der Vegt (2016), the job levels and steeper status hierarchies in work teams were negatively related to both task and process conflict and team performance, because the members at top levels may exert too much influence over team decisions. However, Gladstein (1984), in Cantimur *et al.* (2016), maintained that teams performing less complex tasks were likely to benefit from a steeper status hierarchy when compared to teams performing more complex tasks.

Robinson (2007) found that managers demonstrated higher engagement levels in organisational processes and activities, when compared to non-managerial and lower-level employees, who were found to have demonstrated lower levels of engagement in organisational processes and activities.

Yusof and Carpenter (2015) found that lower-level employees established good relationships with others, and furthermore, they wanted to gain the approval of others in executing their organisational activities. This was evidence of their strong sense of belongingness in the team environment.

In addition to these socio-biographical variables, several other external factors appear to be influencing team cohesion. The leadership and communication factors will be discussed in the section below.

3.4.2 External factors influencing conflict and team cohesion

This section will discuss external factors that play a role in conflict management and team cohesion. These factors are the size of the team, leadership and communication.

3.4.2.1 Size of the team

Bray (2004) and Fihlo *et al.* (2014) identified the two main environmental factors positively correlated to team cohesion as the level of team members' interpersonal competition and the size of the team. Earlier in their study, Carron *et al.* (1998) had maintained that the actual size of the team enhanced the level of team cohesion. The increase in team size and level of competition were associated with a decrease in team cohesion (Carron *et al.*, 1998).

3.4.2.2 Leadership and vertical communication

Heuzé, Sarrazin, Masiero, Raimbault and Thomas (2006) found that leadership influences were crucial to the enhancement of team cohesion. In teams where the leader had instilled a higher level of social support and gave clear instruction, the team cohesion and performance would increase. (Heuzé *et al.*, 2006). Postmes and de Wit (2001) found a positive relationship between vertical communication and team cohesion. When members failed to deal with interpersonal conflict, the team preferred the leader to resolve the conflict (Benard, 2012).

Johnson (2016) found that leaders serve critical functions to the work of teams, as they provide direction to the organisation's vision and the changing strategies. Homans (1950), as quoted by Johnson (2016), asserted that leaders when maintaining discipline in teams were less concerned with inflicting punishment, but were more concerned with creating conditions in which the team would discipline itself.

Carron (1982) postulated that the democratic leadership style improves team cohesion, because it allows team members to develop close bonds when compared to the autocratic leadership style. The leader in a team will either create benefits for the members or cause a disruption to team effectiveness (Tse, 2014). Poor leadership in the team leads to members experiencing feelings of inferiority and neglect (Tse, Ashkanasy and Dasborough, 2012). Ferdowsian (2016) found that ethical leadership drives collaborative decision-making, conflict management and problem-solving principles. Black, Blue, Davidson and McCormack (2016) confirmed that leadership contributed to improved team performance.

3.4.2.3 Horizontal communication

Horizontal communication is basically lateral communication among team members. It involves the exchange and sharing of information, developing familiarity and cultivating an enhanced sense of belonging to a valued team (Kim *et al.* (2016). Horizontal communication increases the members' attachment to the team and improves cohesion in the team (Postmes & De Wit, 2001).

Kim *et al.* (2016) divided horizontal communication into four parts, namely, varying degrees of positive conflict, distinctiveness, negative conflict and acceptance. They described positive conflict as the team members' ability to manage disruptions through open and transparent communication as opposed to ventilating frustrations and arguments. Negative conflict was described as a confrontational and destructive form of communication. Distinctiveness was described as communal communication with a unique team identity, for instance, members giving each other nicknames, using special team jargon, and other non-verbal cues such as high-five gestures. Lastly, acceptance was described as the members' support and appreciation of each other.

According to Johnson, Selenta and Lord (2006), team cohesion breaks the barriers of resistance among team members and leads to the achievement of mutual goals, greater feelings of self-worth and caring relationships. They maintained that cohesiveness is derived from perceived individual similarities and differences. The members' feelings of self-worth also contribute meaningfully to enhance the good interpersonal relations and the accomplishment of team goals.

3.5 RESEARCH ON TEAM CONFLICT AND TEAM COHESION

Gaertner and Dovidio (2000) maintained that superordinate goals reduced intergroup conflict, however, intergroup relations will only improve when the individuals within the team begin to perceive and think of themselves as team members, rather than as different and unique individuals. Sherif (2015) concurred that inter-team relations, both conflicting and harmonious, affected the very nature of established individual relations within the team. Sherif (2015) concluded that when team members are in conflict they will be united by what he termed 'superordinate goals', which are compelling but cannot be achieved by the efforts of one team member alone. All team members must work and cooperate with each other towards the achievement of common goals.

Bornstein (2003) found that the inherent team interest and individual interests are important attributes in understanding team solidarity and cohesiveness. The collective team goals and team identity emphasise and fortify norms and team-based altruism or patriotism, while in the process, punishment and rejection are increased to individual team defectors, as the shared perception of the outside team is manipulated. Bornstein (2003) maintained that tension between the collective interest of the team and individual team members' interests was unavoidable. From the foregoing assertion it can therefore be deduced that team cohesion will always be a prerequisite for the reduction of intergroup conflict and the achievement of superordinate goals.

According to Wheelan (2005), team conflict provides members with the opportunity for growth and development, and when team cohesion is enhanced members are free from team rejection. Both conflict and cohesion are the unifying forces in teams. Wheelan (2005) concluded that conflict and team cohesion increase the level of productivity and cooperation. Halevy, Bornstein and Sagiv (2008) argued that teams and individual team members are generally competitive and aggressive, and as a result, inter-team conflicts cannot be understood without appreciating the internal tension between team welfare and the individual member's welfare. The intra-team and inter-team levels must be concurrently considered.

Bruhn (2009) found that team members being rewarded on the basis of cooperation were more likely to be more cohesive when compared to team members who were rewarded on a competitive basis, because when strong interpersonal relationships are developed in a team, members become sensitive to each other's needs, they treat

each other with respect, show concern for personal needs and appreciate the diversity promoted by feelings of acceptance.

Halevy, Weisel and Bornstein (2011) once more found that individual team members are not necessarily competitive or aggressive, because when they are given a choice within the team to cooperate in order to maximise their absolute gains, they will do so, instead of competing against each other. The members' love and attraction to the team prevails over following a history of interpersonal-team conflict, aggression and competition. Halevy *et al.* (2011) asserted that these findings are congruent with the fundamental premise of Sherif's (1967) realistic conflict theory.

Engleberg and Wynn (2012) have identified two types of conflict. That is, constructive and destructive conflict. Constructive team conflict leads to team cohesion, and it is manifested among members' when they express disagreements in a manner that values their contributions, promotes team goals, shows mutual respect and focuses on team issues and not personalities.

Auh, Spyropoulou, Menguc and Uslu (2014) found a significant correlation between interpersonal conflict and individual member incompatibilities in the team. De Jong, Curseu and Leenders (2014) asserted that when team conflict is not effectively managed it will invariably induce various dysfunctional, sabotaging, or antagonistic behaviour tendencies that constrain team performance. Guinot, Chiva and Mallen (2015) concurred that the reduction of relationship conflict will eventually improve team performance. Chen and Lin (2016) also found that relationship conflict fully mediates the positive relationship and team performance.

Furthermore, Mello and Rentsch (2014) also identified two types of conflict, namely affective or emotional conflict that is reflected in team members' frustrations and interpersonal compatibilities and general negative emotions ventilated towards other team members. The second type of conflict is task conflict which is manifested in team members' disagreements regarding task-related opinions and ideas.

From the foregoing discussion, historically, the word conflict in the workplace was associated with quarrelling, fighting, anger and hostility. These negative emotions have been found in team situations. However, conflict can be used positively to generate wider solutions to meet individual mutual interests within the team and to foster team cohesion (Engleberg & Wynn, 2012).

Positive conflict elements are linked to team cohesion. These elements, according to Engleberg and Wynn (2012), include a focus on issues, respect for others, supportiveness, flexibility, cooperation, and a commitment to conflict management. Constructive team conflict can lead to many positive outcomes, such as the improved quality of decision-making, tolerance for opposing viewpoints, expressing differences constructively, in essence, promoting participation and by extension, enhancing team cohesion.

Banwo *et al.* (2015) maintained that the life cycle of groups will either have a positive or negative correlation towards the fostering and enhancement of team cohesion, and they summarised the team development process into five main Tuckman (1965) stages, namely, the forming stage (when the team is assembled or established), the storming stage (the team starts to work together to achieve common goals and objectives and conflict emerges as the result of conflicting ideas, personality preferences and ideas), the norming stage (the team agrees to rules and procedures to deal with interpersonal conflict by clarifying members responsibilities and roles, the performing stage (the team members are consistently working as a team to achieve the team's goals and objectives) and the adjourning stage (when the team is terminated after achieving its goals and objectives). The nature and dimension of cohesiveness among team members will differ through the stages of group development process.

Van Vianen and de Dreu (2001) quoted Festinger (1950) that team cohesion is directly linked to team functioning, and emphasised the collective effort of members to remain in the team as the driving force to achieve the objectives of the team. Dion (2000) also concurred with Festinger (1950) that team cohesion was enhanced by members' attraction to individuals with similar values, mentality and background. Dion (2000) found external factors exerted varying influences on team cohesion. The fostering and enhancement of team cohesion is crucial in the achievement of team goals and objectives. Team cohesion is evident when members are united and stay together to accomplish team goals and objectives. However, teams that show poor self-discipline will find it difficult to cooperate and perform (Stone & Redmer, 2006).

Banwo *et al.*'s (2015) definition of team cohesion categorised the construct as consisting of the total internal and external forces impacting on the members' commitment to remain in the team. Team cohesion is the dynamic process that keeps

team members together and is bonded on their united pursuit to achieve its goals and institutional objectives (Carron *et al.*,1998). However, Johnson (2016) warned that the team cohesiveness may lead to groupthink. Janis (1971) explained groupthink as the deterioration in team members' cognitive efficiency, reality testing and moral judgment that can result from team pressure on individual members.

From the foregoing literature review it can be deduced that conflict in the workplace is inherent and inevitable as the result of conflicting interests and different personalities and poor employee involvement. If conflict is not effectively managed it might lead to incoherent teams and loss of productivity.

In summary, it can be deduced that constructive conflict enhances and fosters team cohesion. Hysa (2016) found that team cohesion was positively correlated to an increase in the team members' level of productivity and satisfaction with their jobs and organisations. Black *et al.* (2016) confirmed that team cohesiveness is associated with positive performance outcomes. However, conflict has to be managed constructively.

3.6 THEORETICAL INTEGRATION

Engleberg and Wynn (2012), in striking a balance between conflict and cohesion, described the management of conflict as a delicate balancing act, like walking in a tightrope, or a rock climber trying to get the right handhold or fall to sure death. Every team, in order to survive and meet the goals for which it was established, must on one hand, balance the need to achieve team goals, and on the other hand, create team consensus. Conversely, Benard posited that conflicting team goals were found to motivate team cohesion (2012). Maynard *et al.* (2015) concluded that there was a positive reciprocal relationship between team adaptation and team cohesion.

De Jong *et al.* (2014) asserted that conflict was tied to team cohesion. In the event that management was worried about lack of team cohesion, they could introduce a task or disruption, so as to enhance the feeling of cohesion among members. There is a positive correlation between cohesion and good work performance (Maynard *et al.*, 2015).

Various debriefing activities improve performance and organisational commitment (Seibert, Wang & Courtright, 2011). Tannenbaum and Cerasoli (2013) concluded that the team that needs to adapt repeatedly in order to accomplish its tasks, might need

debriefing sessions from management to strengthen its team cohesion Likewise, mentoring and coaching have been recognised as a critical component of team members' development (Beattie, Kim, Hagen, Egan, Ellinger & Hamlin, 2014).

It is, therefore, not surprising that Benard (2012) found that inter-team conflict shaped the individuals' tendencies to sacrifice their independence for their teams and enforced the adherence of team norms in members. External threats were also found to increase the overall team cohesion (Benard, 2012; Sherif, 2015). Maynard *et al.* (2015) found that team cohesion was a team's inherent capacity to adapt. They postulated that team adaptation processes were as a result of a team that included the option of adapting or not adapting to the team's processes at all.

The research by Wongpakaran *et al.* (2013) critically and importantly contextualised team cohesion as a multidimensional construct consisting of factors such as acceptance, trust, liking, understanding of team goals, sense of participation, attraction and sharing of personal information and feelings. In light of the foregoing information, it can be speculated that conflict is a precedent of the enhancement and fostering of team cohesion.

The literature review confirmed the findings by Wongpakaran *et al.* (2013) that team cohesion is a dynamic and multidimensional construct closely intertwined and interchangeable with team members' engagement. This assertion justifies further research of the construct. Furthermore, Mello and Rentsch (2014) found that homogenous teams were cohesive and satisfied when compared to diverse teams.

Khudaykulov (2015) found a positive correlation between extraversion and team cohesion in the organisational setting, and recommended that the construct must be further studied in a workplace setting. Consequently, this research was primarily aimed at addressing this challenge, and also contributing significantly to the body of knowledge in team cohesion dynamics in a Financial Institution.

Furthermore, Bushman (2016) also found a significant relationship between cohesiveness and interpersonal conflict, as Chowdhury, Jeon and Ramalingam (2016) found that Interpersonal conflict in teams was omnipresent.

3.7 CHAPTER SUMMARY

This chapter addressed the second literature research aim, namely, to conceptualise the sociological related disposition constructs (conflict management and team cohesion) by means of theoretical models in the literature. Firstly, the conceptual foundations of conflict management styles were discussed, followed by a discussion of the relevant theoretical models. Secondly the conceptual foundations of team cohesion and dimensions were discussed, followed by a discussion of the relevant theoretical models, socio-biographical variables and external factors influencing team cohesion. The discussed sociological-related disposition constructs will have greater implications for both Consulting Psychology and Industrial and Organisational Psychology practices regarding interpersonal conflict resolution processes and the enhancement of team cohesion.

Therefore, the second research aim of the literature review has been achieved. In Chapter 4, the research methodology will be discussed.

CHAPTER 4: RESEARCH METHODOLOGY

This chapter outlines the empirical investigation with the specific aim of describing the statistical strategies that were employed to achieve the empirical aims of the study. Firstly, an overview of the study's population and sample is presented. The measuring instruments are discussed and the choice of each justified, followed by the description of the data gathering, administration and the scoring of the psychometric battery and statistical processing methods. The formulation of the research hypotheses are stated, and the chapter will conclude with a chapter summary.

The empirical research phase consists of the following nine steps:

Step 1: Choosing, motivating and determining the psychometric instruments

Step 2: Description of the sample

Step 3: Ethical considerations and administration of the psychometric battery

Step 4: Capturing of criterion data

Step 5: Formulation of the research hypotheses

Step 6: Statistical processing of the data

Step 7: Reporting and interpreting the results

Step 8: Integration of the research findings, and

Step 9: Conclusions, limitations and recommendations

4.1 DETERMINATION AND DESCRIPTION OF THE SAMPLE

The term population is defined by Howell (2008) and Weathington, Cunningham and Pittenger (2010) as a cluster of people and complete set of events in which the researcher is interested, that forms part of the purpose of the research, and about which the research project would like to isolate certain characteristics. According to Neuman (2006), in order for the population to be accurately defined, the units being sampled, the geographical locator, and the temporal boundaries need to be specified.

A sample is a subset of the population, and is defined as a constellation of the entire population that has been drawn, and in which the researcher is interested. The most

important aspect to be considered is whether the sample size is representative of the total population (Tredoux & Durrheim, 2013).

There are two types of sampling, namely, probability and non-probability sampling (Terre Blanche & Durrheim, 2002). Probability sample allows every individual member of the target population an equal chance of being selected for the sample. Non-probability sampling has no way of guaranteeing every individual in the population to be represented in the sample (Whitley & Kite, 2013; Tredoux & Durrheim, 2013).

In this study, non-probability sampling method called purposive sampling was used. (Whitley & Kite, 2013). The purposive sampling method allows the researcher to collect data in a purposive manner from a ready and available population. Non-probability samples are used when researchers face difficulties in terms of the cost involved and limitations relating to experimental manipulation or the types of measures that the researcher can use (Tredoux & Durrheim, 2013).

For this cross-sectional survey study, the total population consisted of (N = 1500) of employees in the Financial Services Industry in South Africa. The electronic questionnaires were e-mailed via an internet Lime Survey link, and 286 questionnaires were completed and submitted. This was followed by the distribution of manual questionnaires to participants who preferred this traditional practice and 200 questionnaires were returned. In total 486 questionnaires were returned, however, only 463 were identified as usable for the study. A response rate of 31% was thus achieved. Table: 4.1 provides an overview of the final sample.

Table: 4.1
Final sample

Description	Number of usable questionnaires received
Population: N = 1 500	
Total number of questionnaires received electronically	263
Total number of questionnaires completed manually	200
Total number of questionnaires used	463
TOTAL FINAL SAMPLE SIZE:	n = 463

The profile of the sample is described according to the following socio-biographical variables: race, gender, age, job level, educational level and tenure in the organisation.

The decision to include these socio-biographical categories of variables was based on the literature review exploration of the variables that influence or moderate the relationship between and among self-worth, personality preferences, interpersonal conflict and team cohesion.

The determination of the sample size is a crucial aspect of quantitative research. The sample size should be representative of the entire population, and is a significant factor to consider in allowing the researcher to draw inferences and conclusions in any empirical research. Accordingly, the sample size was an important aspect that was considered in this research study to allow the achievement of adequate statistical analyses.

4.1.1 Composition of race groups in the sample

Table: 4.2 and Figure: 4.1 illustrate the race distribution of the participants in the sample. Blacks comprised 79%, and whites comprised 21% of the participants (N = 463).

Table: 4.2
Race distribution of the sample

Race	N	Percentage of sample
Blacks	366	79%
Whites	97	21%
Total (N)	463	100%

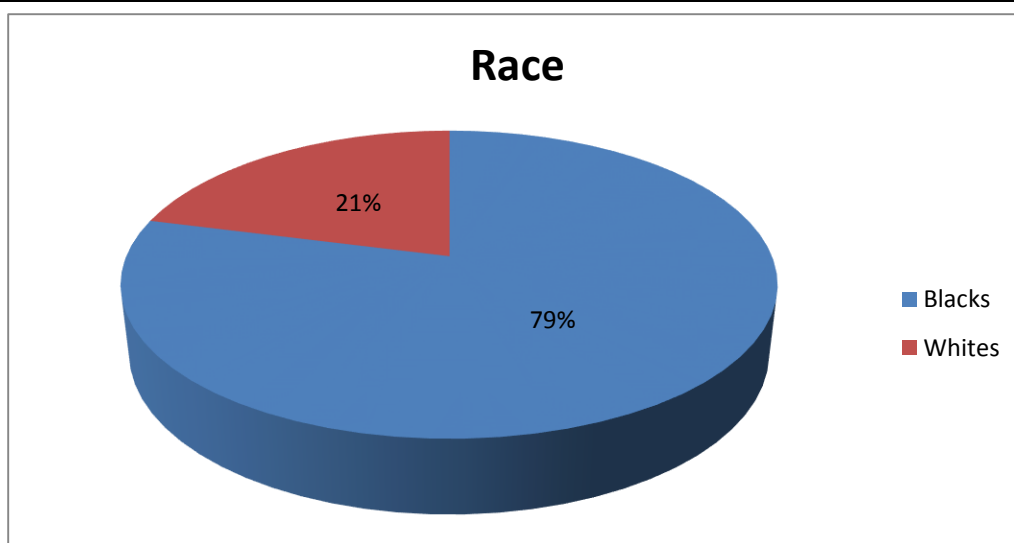


Figure: 4.1
Race distribution of the sample

Source: Research results

Table: 4.2 and Figure: 4.1 above illustrate the race distribution of the sample. The distribution of the sample shows that Blacks comprised 79%, and whites comprised 21% of the total sample of participants for this category (N = 463). The sample was relatively in line with the financial institutional profile.

4.1.2 Composition of gender groups in the sample

Table: 4.3 and Figure: 4.2 illustrate the gender distribution of participants in the sample. Male comprised 51% and females comprised 49% of the participants (N = 463).

Table: 4.3
Gender distribution of the sample

Gender	N	Percentage of sample
Male	236	51%
Female	227	49%
Total (N)	463	100%

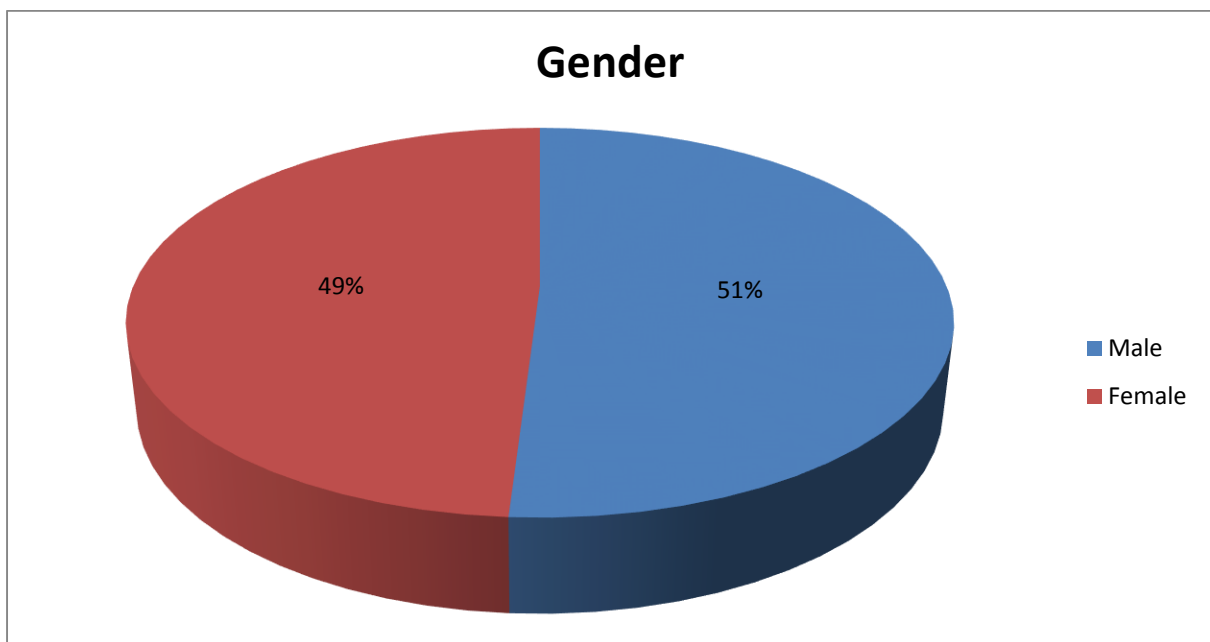


Figure: 4.2
Gender distribution of the sample

Source: Research results

4.1.3 Composition of age groups in the sample

Table: 4.4 and Figure: 4.3 illustrate the age distribution of the participants in the sample.

Table: 4.4
Age distribution of the sample

Age	N	Percentage of sample
40 years and younger	305	66%
41 years and above	158	34%
Total (N)	463	100%

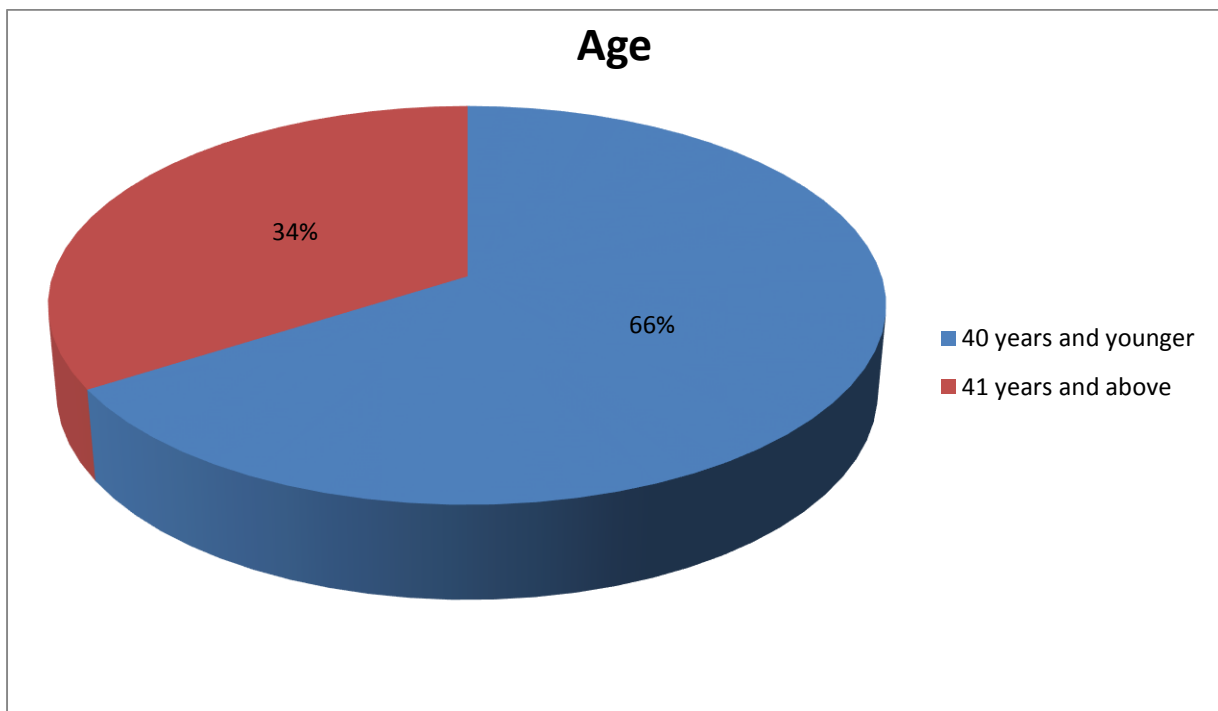


Figure: 4.3
Age distribution of the sample

Source: Research results

The age of the participants was measured in categories, ranging from 40 years and younger to those over 41 years. Table: 4.4 and Figure 4.3 illustrate the age distribution of participants of the sample. Participants aged 40 years and younger comprised 66%, and participants aged 41 and above comprised 34% of the total sample (N = 463).

4.1.4 Composition of job level groups in the sample

Table: 4.5 and Figure: 4.4 illustrate the job levels in the sample.

Table: 4.5
Job level distribution of the sample

Job level	N	Percentage of sample
Management and Specialists	422	91%
Non-management	41	9%
Total (N)	463	100%

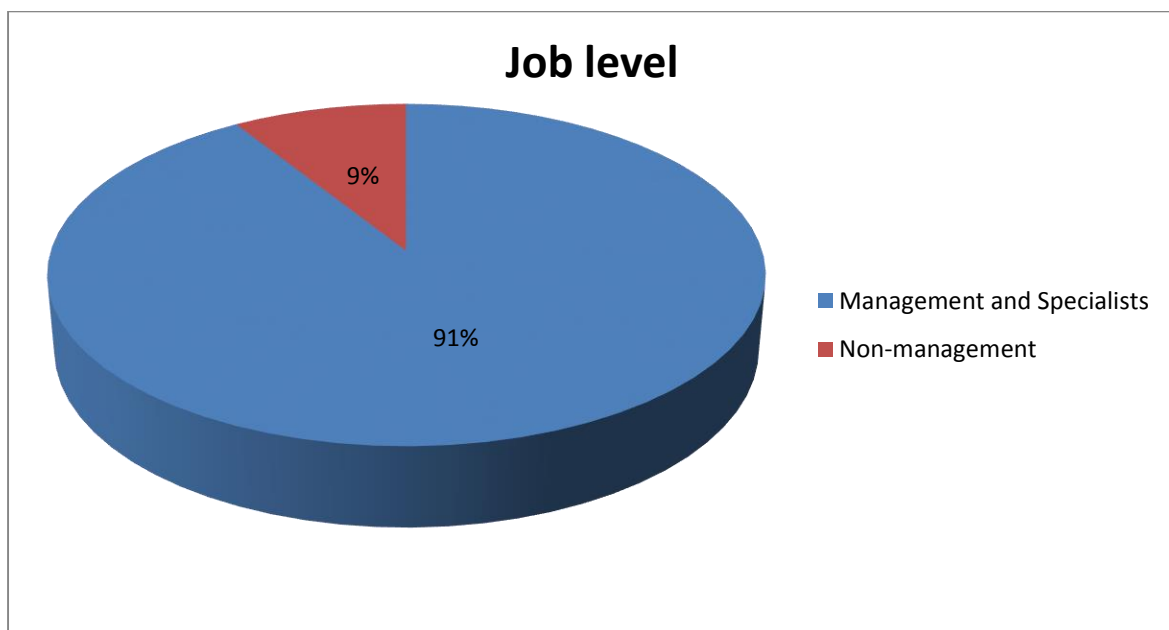


Figure: 4.4
Job level distribution of the sample

Source: Research results

The distribution of the sample shows that of the participants (N = 463), 91% were employed at management and specialists level and 9% at non-management level. The financial institution staff profile comprises of many employees with post-matric qualifications because of the complex and sophisticated products and services they are offering to customers. The low percentage of non-managerial staff will not influence the results.

4.1.5 Composition of educational level groups in the sample

Table: 4.6 and Figure: 4.5 illustrate the educational level of the participants.

Table: 4.6

Distribution of educational level of the sample

Educational level	N	Percentage of sample
Post matric	420	91%
Matric	43	9%
Total (N)	463	100%

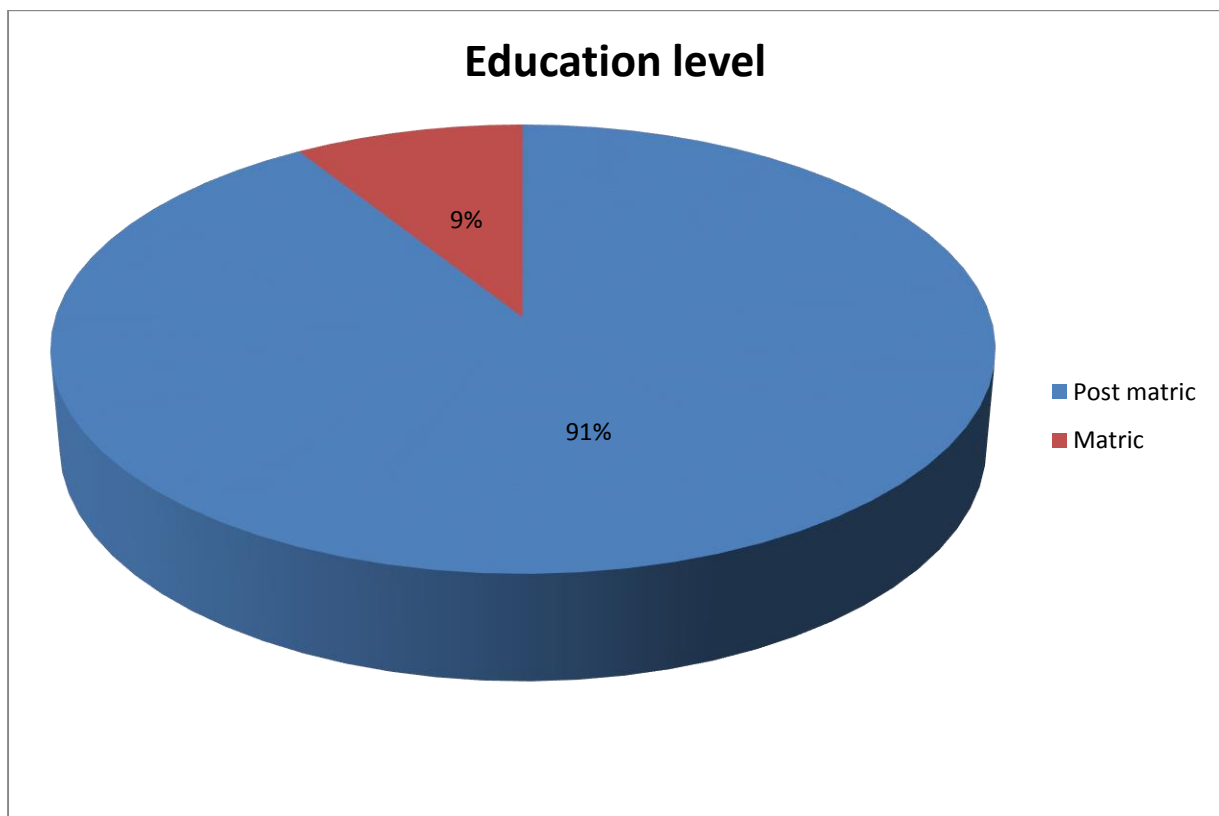


Figure: 4.5

Distribution of educational level of the sample

Source: Research results

The distribution of the sample shows that of the participants (N = 463), 91% were in possession of post-matric qualifications and 9% were in possession of matric.

4.1.6 Composition of job tenure groups in the sample

Table: 4.7 and Figure: 4.6 illustrate the job tenure of the participants in the sample.

Table: 4.7
Job tenure distribution of the sample

Job tenure	N	Percentage of sample
Below 20 years	282	61%
Above 21 years	181	39%
Total (N)	463	100%

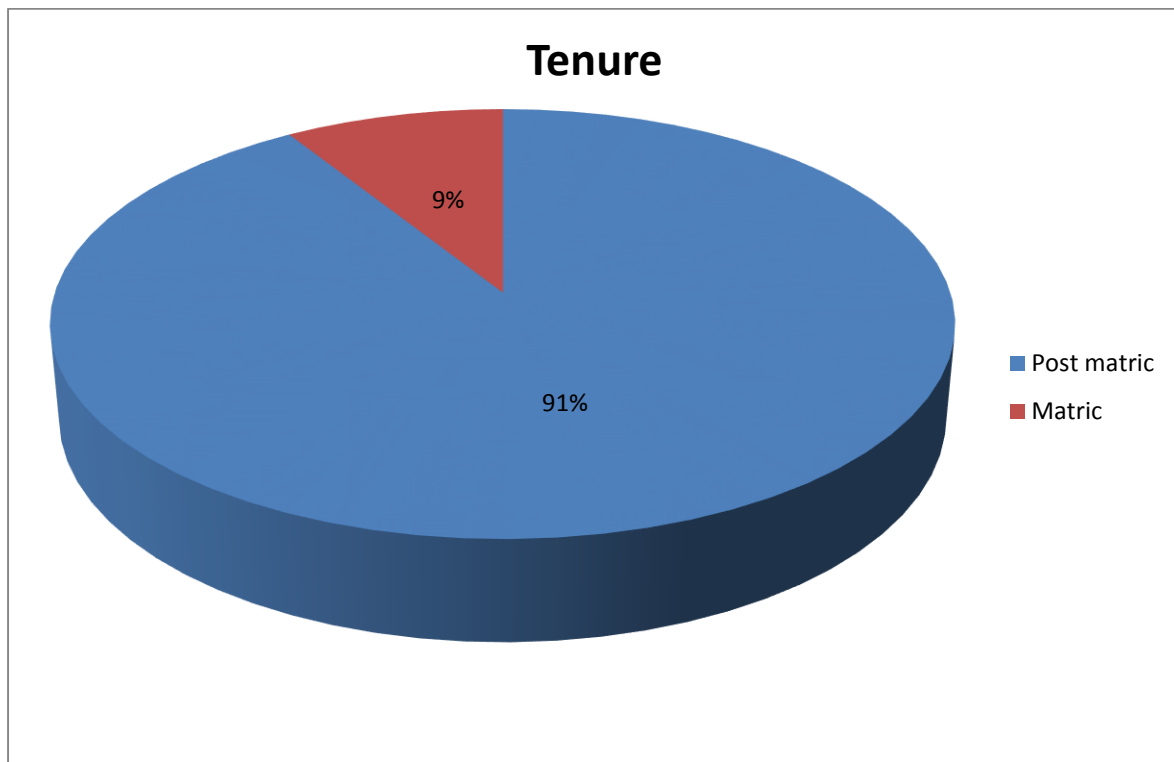


Figure: 4.6
Job tenure distribution of the sample

Source: Research results

The distribution of the sample shows that of the participants (N = 463), 61% had a length of service of 20 years and below, and 39% of the participants had a length of service of 21 years and above.

4.1.7 Summary of sample's socio-demographic profile

In summary, the socio-demographic profile obtained for the sample showed that the main characteristics that needed to be considered in the interpretation of the empirical results were as follows: race, gender, age, job level, education level and tenure. The participants in the sample were predominantly Blacks below 40 years old, in possession of post-matric qualifications, employed at senior and professional specialist positions with less than 20 years' of work experience.

4.2 CHOOSING AND MOTIVATING THE PSYCHOMETRIC BATTERY

The selection of the psychometric battery was guided by the literature review. The literature review can be categorised as exploratory research, in which the relevant models and theories of personality preferences, self-worth, conflict management resolution styles and team cohesion were presented in an integrated manner.

The measuring instruments were chosen, based on the relevance of the models and theories to the current research study. More specifically, the psychometric instruments were investigated and chosen based on their validity, reliability, cost effectiveness and suitability. Validity refers to the extent to which the instrument measures what it is supposed to measure. On the other hand, reliability refers to the precision, accuracy and stability of the measuring instrument, in that it accurately and consistently produces the same measurement (Tredoux & Durrheim, 2013). The following measuring instruments were chosen for use in the study and will be discussed in the section below:

- Socio-demographic questionnaire,
- Contingencies of Self-Worth Scale (CSWS),
- Myers Briggs Type Indicator (MBTI),
- Thomas-Kilmann Conflict Resolution Instrument (T-K CRI), and
- Group Cohesion Scale (GCS)

4.2.1 Socio-demographic questionnaire

A socio-demographic questionnaire was constructed to gather the information needed for the statistical analysis of the data. The type of information to be ascertained included race, gender, age, job level, educational level and job tenure. The decision to

include this information was based on the theoretical review of variables that may have an influence on the empirical results.

4.2.2 Contingencies of Self-Worth Scale (CSWS)

The CSWS of Crocker *et al.* (2003) is used to measure the construct self-worth. In this research study, the CSWS is discussed with reference to the development, rationale, description of sub-items, administration, interpretation, validity, reliability and motivation of choices.

4.2.2.1 Development and rationale of the CSWS

The CSWS was developed by Crocker *et al.* (2003) and is used as an instrument to measure self-worth. The CSWS is based on the seven subscales, namely, God's love (religion), family support (love from family), virtue (ethical behaviour), competition (outdoing others), academic competence, physical appearance (pleasing others), and approval from others.

The notion that individuals differ in relation to the domains on which they base their self-worth. It was introduced by the classical psychologist, William James (1890). Over a period of time, individuals develop contingencies on which they base their self-belief and it informs their belief that they are worthy, and have high self-esteem (Crocker & Wolfe, 2001).

The contingencies of self-worth provide a self-regulatory function, because individuals tend to set self-validation goals in their chosen self-worth domain, however, these contingencies can also represent psychological vulnerability. For example, individuals basing their self-worth in external qualities, such as physical appearance and success, may be vulnerable to a variety of negative mental health outcomes, whereas, individuals basing their self-worth on more internal qualities, such as religion and virtue, may find that it leads to positive and healthy outcomes (Crocker, 2002).

4.2.2.2 Description of CSWS scale

The CSWS represent the individual's domains in which success or failure leads to either increases or decreases of their self-esteem. It serves as an important self-regulatory function, upon which individuals seek to protect, maintain, enhance and foster their self-esteem. In seeking to protect their self-esteem, individuals will always

engage in activities that will make them attain success and avoid failure in the domains on which their self-worth is based or contingent (Crocker *et al.*, 2003).

The intrinsic contingencies of self-worth promote personal growth, and allow individuals to respond effectively to threats and also improve their overall sense of self-worth. The contingencies of self-worth also moderate the effect of positive and negative experiences on self-esteem (Crocker, Sommers & Luhtanen, 2002). Self-esteem is often contingent on at least one of the seven self-worth domains (Crocker *et al.*, 2003). The outcomes in these contingencies of self-worth domains generalise the worth and value of the whole person (Crocker & Park, 2004). Bentea (2016) concurred with the descriptions by earlier authors that the contingencies of self-worth are personal beliefs about what individuals generally do in order to have value and worth as human beings.

4.2.2.3 Administration of CSWS scale

The CSWS assesses the extent to which respondents base their self-worth in the seven domains. The CSWS consists of 35 items measured on a seven-point Likert scale, ranging from 1 “strongly disagree” to 7 “strongly agree” The seven scales consist of five items each, that is, God’s love (religion), family support (love from family), virtue (ethical behaviour), competition (outdoing others), academic competence (for the purpose of this study substituted with work competence), physical appearance (pleasing others) and approval from others.

4.2.2.4 Interpretation of the CSWS scale

The respondents’ high scores in the seven subscales, namely, appearance, approval from others, competition, work competence, family support, virtue, and God’s love indicate the high importance of the domains on which self-worth are contingent to the respondents. The higher scores also indicate the higher relevance of that particular contingency of self-worth (Crocker *et al.*, 2003; Maricutoiu, Macsinga, Rusu, Virga & Sava, 2012; Bentea 2016).

A seven-point Likert-type scale was used for rating responses in the questionnaire. Each subscale is measured separately and reflects the self-evaluations and feelings of the respondents in these subscales. Thus, the researcher can determine which subscales are true for the respondent and which are not. The higher the score, the

higher the respondent's level of self-worth. Responses are measured in terms of the following scale:

- 1 = strongly disagree
- 2 = disagree
- 3 = disagree somewhat
- 4 = neutral
- 5 = agree somewhat
- 6 = agree
- 7 = strongly agree

4.2.2.5 Validity and reliability of the CSWS scale

Crocker *et al.* (2003) have found evidence of the validity of the CSWS, and the factor analysis and confirmatory factor analysis confirmed the construct validity of the scale. Reports of test-retest reliability correlations ranged between .68 and .92 for all the subscales (Crocker *et al.*, 2003).

In another study confirmatory factor analysis, in a study of Bentea (2016), the distinction between the internal and external contingencies were found to be valid. The results had shown that three or four fit indices have an acceptable value of .90 which indicated a good model fit.

Bentea (2016) concurred with Crocker *et al.* (2003) that all the CSWS subscales have an acceptable level of internal consistency with the Cronbach's Alpha indices of between .70 (virtue) and .93 (for God's love), that are comparable with the internal consistency's values. The correlations between the subscales were also found to be statistically significant and relatively similar to the results reported by Crocker *et al.* (2003).

4.2.2.6 Motivation for choice

The CSWS has a simple structure that can be arranged on a continuum from relatively external to relatively internal contingencies, with external contingencies being negatively related to adjustment. It is quick and easy to administer and has been proven to be valid, reliable and free of cultural bias. The CSWS has been designed for the measurement of self-worth, which is relevant to the current study.

4.2.3 Myers Briggs Type Indicator (MBTI)

The Myers-Briggs Type Indicator (MBTI) of Briggs and Myers (1977) was developed to measure the personality preferences construct. The MBTI is discussed with reference to the theoretical basis for its development, rationale of the questionnaire, description of the scales, administration, interpretation, validity, reliability and motivation for the choice of the instrument.

4.2.3.1 Development and rationale of MBTI

The MBTI psychometric instrument was developed to operationalise the classical psychological type theory of Jung (1921). Jung (1921) made the following underlying assumptions about personality:

- Past experience and expectations about the future influence behaviour and personality.
- Individuals are capable of constant and creative development.
- Personality as a whole is an open system which is receptive to inputs and exchanges.

The MBTI is different from other personality instruments, in that it is designed to implement Jung's theory. It is therefore important that the theory is understood in order to understand the instrument. According to Briggs-Myers, McCaulley, Quenk and Hammer (2009) the theory postulates four dichotomies, namely Extraversion and Introversion (E-I) dichotomy, Sensing and iNtuition (S-N) dichotomy, Thinking and Feeling (T-F) dichotomy, and Judging and Perceiving (J-P) dichotomy.

In the sensing and intuition dichotomy the capital "N" instead of the capital "I" is used for convenience as the alphabet letter "I" has already been used in the E-I dichotomy. Furthermore, through continuous research over many years the fourth J-P dichotomy was later added by Myers and Briggs to the instrument (Briggs-Myers *et al.*, 2009).

The MBTI attempts to operationalise Jung's (1921) theory construct by explaining and identifying individual differences from their personalities into four functions (Briggs-Myers *et al.*, 2009). In essence, the instrument measures types, rather than traits or continuous variables. Consequently, it is used to explain the behaviour of a wide range of individuals.

According to Briggs-Myers *et al.* (2009), in addition of the pairs of functions Jung's (1921) theory had defined, there are the following eight dominant types as described in Table: 4.8.

Table: 4.8
The Eight Jungian functions (Taken from Briggs-Myers *et al.* 2009)

Jungian function	Description
Dominant Extraverted Sensing	Directing energy outwardly and acquiring information by focusing on a detailed, accurate accumulation of sensory data in the present.
Dominant Introverted Sensing	Directing energy inwardly and storing the facts and details of both the external reality and internal thoughts and experiences.
Dominant Extraverted Intuition	Directing energy outwardly to scan for new ideas, interesting patterns, and future possibilities.
Dominant Introverted Intuition	Directing energy inwardly to focus on unconscious images, connections and patterns that create inner vision and insight.
Dominant Extraverted Thinking	Seeking logical order to the external environment by applying clarity, goal-directedness and decisive action.
Dominant Introverted Thinking	Seeking accuracy and order in internal thoughts through reflecting on and developing a logical system for understanding.
Dominant Extraverted Feeling	Seeking harmony through organising and structuring the environment to meet people's needs and their own values.
Dominant Introverted Feeling	Seeking intensely meaningful and complex inner harmony through sensitivity to their own and others' inner values and outer behaviour.

4.2.3.2 Description of MBTI

The MBTI consisted of four separate scales. Each scale reflected one of the four basic preferences, which in Jung's (1921, 1971 & 1990) theory, directed the use of perception and judgment. These preferences affected not only what individuals attended to do in a given situation, but also how they arrived at conclusions about what they perceived.

The scales E-I, S-N, T-F and J-P were designed to point in one direction or the other. They were not designed as scales that measured traits or behaviour, but to reflect a habitual choice between rival alternatives (Briggs-Myers *et al.*, 2009).

The E-I scale was designed to reflect whether an individual was an extrovert or introvert. An extrovert directed energy mainly towards the external environment of people and objects. An introvert directed energy towards the inner world of experiences and ideas (Briggs-Myers *et al.*, 2009).

The S-N scale was designed to reflect the individual's preference between two opposite ways of perceiving. The sensing focused on what the individual perceived using the five senses. The intuition focused on the individual's perception of patterns and interrelationships (Briggs-Myers *et al.*, 2009).

The T-F scale was designed to reflect the individual's preference between two contrasting ways of judgment. The individual may fundamentally rely on Thinking (T) to decide impersonally on the basis of logical consequences, or the individual may rely fundamentally of Feeling (F) to decide on the basis of personal or social values (Briggs-Myers *et al.*, 2009).

The J-P scale was designed to describe the process the individual uses to fundamentally deal with the outer world or the extraverted part of life. An individual who prefers Judgment (J) is inclined to use the judgment process (Thinking or Feeling) in dealing with the outer world (Briggs-Myers *et al.*, 2009).

The MBTI Form M, was used for this research study. Form M contained research items, as well as the items for personality type. The MBTI items were arranged in such a manner that they can best predict total personality type at the beginning, thus increasing the likelihood that participants who do not complete the MBTI can still receive accurate reports about their personality type.

The MBTI Form M, is a reporting instrument that consists of four parts. Part 1 contains 26 items, Part 2 consists of 32 items, Part 3 consists of 20 items and Part 4 consists of 15 items. Overall, the participants had to respond to 93 items.

4.2.3.3 Administration of MBTI

The MBTI is a self-scorable questionnaire which is administered individually and in groups. It takes approximately 15 minutes to answer, although there is no time limit, slow participants are encouraged to work faster and not to study the items at length.

The MBTI is administered according to the rating and scoring instructions provided by Briggs-Myers *et al.* (2009). Supervision is not necessary as the questionnaire is self-

explanatory. Participants are required to mark an X for each appropriate item on a forced scale. The self-scorable form and prepared answer sheet combine questions and answers in one form. Each dichotomy is rated separately.

4.2.3.4 Interpretation of the MBTI

Each MBTI dichotomy is measured or rated separately, and reflects the participant's preferences on the various items that relate to a specific dichotomy. The accuracy of the MBTI self-report instrument depends on the willingness of individuals to self-report their preferences. The higher the score, the truer the statement is for the participant. Dichotomies with higher scores are regarded as the participant's preferred personality type. There are 16 different personality types.

4.2.3.5 Validity and reliability of the MBTI

Capraro and Capraro (2002) in judging the factor analysis and reliability of MBTI, found that the instrument yielded scores with strong internal consistency and test-retest estimates, however, variations were observed. Capraro and Capraro (2002) emphasised that it is important for researchers to take cognisance that reliability is a property of the scores on a test in a particular sample, hence it is important that reliability coefficients are provided to analyse data, even in situations where the focus of their research is not psychometric in nature.

According to Briggs-Myers *et al.* (2009), the internal consistency of the four MBTI scales is high in the research that has been conducted, whether computed using logical split-half, conservative item split-half, or coefficient alpha. The test-retest reliabilities of the MBTI have shown consistency over time (Briggs-Myers *et al.*, 2009).

An exploratory factor analysis (Briggs-Myers *et al.*, 2009) and confirmatory factor analysis (Briggs-Myers *et al.*, 2009) provided evidence that the MBTI supported Jung's personality type theory and the model. Furthermore, correlations of the four preference scales support the predictions of the type theory with regard to the meaning of, and the behaviour associated with the four dichotomies (Briggs-Myers *et al.*, 2009).

Furthermore, van Zyl and Taylor (2012) investigated the reliability of MBTI in the broad South African context, and found that the instrument was reliable for use with the diverse multicultural South African population. The sample was categorised into subgroups by biographical variables such as ethnicity, gender and age categories. The

Cronbach alpha coefficients ranged from .88 to .92. The factor analysis confirmed the four-factor structure of the MBTI.

4.2.3.6 Motivation for choice

The MBTI was chosen for its value as a self-sight and development tool. It was selected for its appropriateness, brevity, validity and reliability founded on solid theoretical theory. Results obtained from analysing the dominant and non-preferred functions and attitudes can benefit individuals by identifying their predominant personality type preferences, and working on the development of their non-preferred function preferences to deliver more balanced behaviour, more especially in the workplace environment.

4.2.4 Thomas-Kilmann Conflict Resolution Instrument (T-K CRI)

4.2.4.1 Development and rationale of T-K CRI

The Thomas-Kilmann conflict resolution instrument was developed by Thomas and Kilmann (1974) and is used as an instrument to measure interpersonal conflict. The T-K CRI is based on the five conflict styles, namely, competing, avoiding, accommodating, compromising and collaborating. Nwosu and Makinde (2014) confirmed that interpersonal conflict in the workplace is inevitable. Yalcin (2015) found significant positive correlations among the conflict styles of compromising, dominating and avoiding, and no significant correlation at the sub-dimensions of integrating and obliging. Therefore, managing interpersonal conflict is unavoidable in high effective organisations (Nwosu & Makinde, 2014), and understanding one's conflict style can help employees to manage interpersonal conflict (Johnson, Thompson & Anderson, 2014).

According to Johnson *et al.* (2014), the T-K CRI was developed to reduce social desirability response bias, when compared to similar instruments measuring conflict behaviour. The instrument was based on a conceptual framework proposed by Blake and Mouton (1964). The instrument was researched over the course of many years, and the five conflict styles were described along two independent dimensions, that is, assertiveness (the degree to which individuals attempt to satisfy their own concerns), and cooperativeness (the degree to which individuals attempt to satisfy others' concerns). Conflict was found to be important for team effectiveness, however, it

should be managed carefully to make a positive contribution (Riasi & Asadzadeh, 2015).

4.2.4.2 Description of T-K CRI

The T-K CRI is a self-rated questionnaire which consists of 30 items that measure interpersonal conflict styles. The instrument measures five different conflict-handling modes, namely, competing, collaborating, compromising, avoiding and accommodating. Team members can use one or more modes simultaneously in their work life conflicts (Hassan *et al.*, 2015).

Johnson *et al.* (2014) found that the instrument can be used to improve interpersonal relations among team members, reconcile their differences and assist them to work together to achieve common team goals. Furthermore, the instrument measures team members' behaviour when confronted with conflict on the two dimensions of assertiveness and cooperativeness (Dominguez, Sanchez-Diaz, Fike, Ramirez, Walk, Gottlieb & Parker, 2016).

Thomas-Kilmann (2015) concluded that the T-K CRI was the leading assessment instrument of interpersonal conflict for more than 30 years. Every team member was capable of using one of the five conflict handling modes. However, members may use some modes for than others. The members' conflict handling behaviour at the workplace was as the result of personal dispositions and the requirements of the situation they found themselves in.

4.2.4.3 Administration of T-K CRI

The T-K CRI is a forced-choice self-rated questionnaire which can be administered individually or in teams, and takes approximately 15 to 20 minutes to answer, although there is no time limit. The respondents select one of two alternatives, making the social desirability of the response options an important consideration (Johnson *et al.* 2014).

The questionnaire measures employees' typical behaviour when confronted with interpersonal conflict. The behaviour is fundamentally measured along the two dimensions of assertiveness and cooperativeness described by the five modes of conflict handling (Kilmann & Thomas, 1977). Assertiveness is the extent to which employees try to satisfy their own concerns, and cooperativeness is the extent to which employees try to satisfy others' concerns (Thomas & Kilmann, 2007).

The five measured modes of handling conflict are categorised as: competing (assertive and not cooperative), collaborating (assertive and cooperative), compromising (located in the middle on both dimensions), accommodating (not assertive and cooperative) and avoiding (neither assertive nor cooperative) (Dominguez *et al.*, 2016).

4.2.4.4 Interpretation of the T-K CRI

The T-K CRI is designed to measure the five conflict resolution styles of individual behaviour in a conflict situation. The instrument combines two independent concerns, that is, concern for self and concern for others to create the five specific conflict resolution styles (Nelson, Shechter & Ben-Ari, 2014; Hassan *et al.*, 2014).

The individuals that report high concern for themselves and low concern for others, fall into the dominating (competitive) category. Individuals that report low concern for themselves and high concern for others, fall into the obliging (accommodating) category. Individuals that report moderate concern for themselves and for others, fall into the compromising (bargaining) category. Lastly, individuals that report low concern for themselves and for others, fall into the avoiding (withdrawing) category (Rahim, 1983; Nelson *et al.*, 2014; Hassan *et al.*, 2015).

4.2.4.5 Validity and reliability of the T-K CRI

An exploratory factor analysis (Womack, 1988) and studies conducted by Nelson *et al.* (2014) confirmed and provided evidence that the T-K CRI meets the psychometric criteria of convergent and discriminant validity for the theoretical constructs being considered. The test-retest coefficients of the T-K CRI with respect to its sub-dimensions were: integrating (.83), obliging (.81), dominating (.76), avoiding (.79) and compromising (.60). The Cronbach Alpha coefficients of these dimensions ranged from .72 to .77 (Yildirim *et al.*, 2015).

In terms of reliability (internal consistency) as conducted by Riasi and Asadzadeh (2015) Cronbach's Alpha coefficients for each subscale range from .77 to .81 (high). Studies conducted by both Womack (1988) and Yildirim *et al.* (2015) confirmed the reliability and content and construct validity of the T-K CRI.

4.2.4.6 Motivation for choice

The T-K CRI was used for the present study because of its high degree of validity and reliability. It is also affordable and easy to administer. Furthermore, the five conflict

resolution styles, with two main orientations towards conflict resolution, namely, assertiveness (self) and cooperativeness (others) as measured by T-K CRI, are applicable and relevant to this research study.

Momanyi and Juma (2016) found that financial institutions in the African context were faced with various challenges, such as employing different ways of conflict management, creating structural consensus processes and the challenge of cooperative discourse and dealing with change. Momanyi and Juma (2016) found that the most popular strategies were avoiding and collaborating, and they advised for the used and combination of two or more strategies so that objectivity can be observed. Dalal (2017) confirmed the reliability and validity of the T-K CRI.

4.2.5 Group Cohesion Scale (GCS)

The Group Cohesion Scale (GCS) of Wongpakaran *et al.* (2013) is used to measure the construct cohesion and engagement. In this study the GCS is discussed with reference to the development, rationale, description of sub-items, administration, interpretation, validity, reliability and motivation of choice.

4.2.5.1 Development and rationale of GCS

The GCS was developed by Wongpakaran *et al.* (2013) and is used as an instrument to measure the construct of team cohesion and engagement. The GCS is based on tracking team processes and development. The function of cohesion involves the team members' willingness to cooperate in tasks, and the degree of emotional support they feel and experience from team members (Burlingame *et al.*, 2011).

Based on the findings of Burlingame *et al.* (2011), Wongpakaran *et al.* (2013) describe the importance of cohesion in terms of predicting both team outcomes and processes. Cohesion comprises of two dimensions, that is, relationship quality (which is a positive bond) and the relationship structure. Relationship quality consists of two factors, namely, acceptance and belonging. Relationship structure is related to work alliances, interpersonal relations and team emotional climate (Burlingame *et al.*, 2011).

4.2.5.2 Description of GCS

The GCS is a self-report questionnaire, not only used in psychotherapy but also with any kind of group activity, and it includes seven items. The GCS is divided into subscales (Cohesiveness and Engaged). The cohesiveness subscale consists of two

items. The items are written in the form of statements about feeling or trust, for example “I feel accepted by the group” (feeling) and “In my group we trust each other” (trust) (Wongpakaran *et al.*, 2013).

The engaged subscale consists of five items. The items are written in the form of statements about engagement, for example, “The members like and care about each other”, “The members try to understand why they do the things they do, try to reason it out”, “The members feel a sense of participation”, “The members appear to do things the way they think will be acceptable to the group”, and “The members reveal sensitive personal information or feelings” The items are scored in terms of the frequency with which the respondent experiences these feelings on a seven-point Likert-type scale (ranging from 1 “strongly disagree” to 7 (strongly agree) (Wongpakaran *et al.*, 2013).

4.2.5.3 Administration of GCS

The GCS (Wongpakaran *et al.*, 2013) is administered to any group and requires five to seven minutes for administration. The respondents complete the items by making a cross on the seven-point Likert scale. The researcher can either score the form manually or by means of a software programme. Supervision is not necessary as the questionnaire is self-explanatory.

4.2.5.4 Interpretation of GCS

Each respondent’s questionnaire is scored by using a scoring key that contains directions for scoring each subscale. The scores for each subscale are not considered separately and are combined and computed into a single total score for each respondent. If desired, for individual feedback, the total score can be coded as low, average or high. The higher the respondent’s score, the higher the levels of engagement and cohesiveness in the group processes or activities.

A seven-point Likert-type scale is used for rating the responses to the questionnaire. Each item is measured separately and reflects the self-evaluations and feelings of the respondents in these items. Thus, the researcher can determine which items are true for the respondent and which are not. The higher the score on the items, the higher the respondent’s level of sense of cohesiveness. Responses are measured in terms of the following scale:

1 = strongly disagree

2 = disagree

3 = disagree somewhat

4 = neutral

5 = agree somewhat

6 = agree

7 = strongly agree

4.2.5.5 Validity and reliability of the GCS

When conducting a scientific study it is important to use a valid and reliable instrument when measuring cohesiveness. Wongpakaran *et al.* (2013) developed the GCS and found that the questionnaire yielded acceptable reliability and validity. The internal consistency yielded a Cronbach's Alpha of .87 and concurrent validity was .77. The GCS measures were normally distributed with an acceptable kurtosis of approximately 3.

In the study conducted by Wongpakaran *et al.* (2013) using factor analysis and confirmatory factor analysis, the results indicated that only one factor was extracted. All the questionnaire items loaded were the same, except item 4 ("The members try to understand why they do the things they do, try to reason it out"). The questionnaire had acceptable communality ($\geq .6$). All the items had high loadings ranging from 0.516 to 0.833, indicating item relatedness to the factor. The confirmatory factor analysis and factor model yielded the following results:

The statistical fit of the GCS inferred the following Structural equation model (SEM) indices:

Chi – square test with a p value of $>.05$, a comparative fit index (CFI) of $\geq .95$, a goodness-of-fit index (GFI) of $\geq .95$, a normed fit index (NFI) of $\geq .9$, a Tucker-Lewis index (TLI) of $\geq .9$, a root mean-square error of approximation (RMSEA) of $\leq .6$, a standard root-mean residual (SRMR) of $\leq .08$, using the SPSS AMOS package version 18 (Wongpakaran *et al.*, 2013).

4.2.5.6 Motivation for choice

Wongpakaran *et al.* (2013) found that the psychometric properties of GCS yielded acceptable Cronbach Alpha coefficients and SEM indices. It is thus the view of the researcher that the questionnaire can be used successfully for the South African Financial institution to measure the degree of team cohesiveness among the employees. The GCS is therefore regarded by the researcher as psychometrically

acceptable for the purpose of this study. Furthermore, the Group cohesiveness scale used to measure team cohesion in the model yielded a Cronbach's Alpha of .87 showing a good internal consistency and concurrent validity to measure team cohesion (Wongpakaran *et al.* 2013). In the current study the scale of Cronbach's Alpha was .93.

Finally, the benefit of using the GCS was its conciseness and simplicity.

4.3 ETHICAL CONSIDERATION OF ADMINISTRATION OF THE PSYCHOMETRIC BATTERY

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

Ethical clearance was obtained from the University of South Africa's (Unisa) College of Economic and Management Sciences Research Committee signed by the Dean. Permission for the research was obtained from the research organisation. An online questionnaire managed by Unisa was provided for completion in order to gain the relevant information for this study. After informed consent had been provided, employees completed the questionnaire, either online or using a paper-based version. Approximately 1 500 employed individuals at the Financial Institution were invited to complete the questionnaire.

The employees were invited to participate voluntarily in the study by means of a participation invitation letter that was emailed to each employee. All the respondents were assured of anonymity and confidentiality. Anonymity was ensured as respondents were not asked to give any identifying information. Participants were required to sign statements agreeing to protect the security and confidentiality of identifiable information. Personal identifiers were removed from research-related information. The respondents' names were not recorded anywhere and no-one was able to connect individuals to the answers provided.

Completed questionnaires were sent back to the researcher via the following internet linked LimeSurvey created by Unisa:

Constructing a psycho-social model for team cohesion survey (ID 613746) URL <http://survey.unisa.ac.za/index.php/613746/lang-en> to ensure confidentiality. Employees' participation was voluntary, specific and based on their written informed consent. Direct or indirect coercion, as well as undue inducement of employees in the

name of research, was avoided to prevent employees from consenting against their better judgement to participate in the research study. The covering letter also stated that completing and returning the questionnaire constituted an agreement to use the results for research purposes only. In this letter, employees were informed that completing the questionnaires would be considered informed consent. Criteria for the selection of respondents of the research study were random and fair. The conduct of the scientific research was also honest, fair and transparent.

The consent letter forwarded to respondents included the following information: purpose of research; benefits of the research; the nature of questions; methods (questionnaire) and the respondents' role in the research study; the estimated time questionnaires could take; the identity of the researcher with his contact details; the reason respondents were selected to take part in this research was explained; privacy, anonymity and confidentiality were explained and ensured; future use of information obtained for thesis and research articles were mentioned and that this would not violate their privacy, anonymity and confidentiality in any way; respondents had the right to withdraw their participation at any stage of the research without advancing any reason. However, once the completed questionnaire had been submitted it was not possible to withdraw the questionnaire due to the non-identifiable nature of the material.

4.4 CAPTURING OF CRITERION DATA / SCORING OF THE PSYCHOMETRIC BATTERY

The employees' responses to each of the items in the questionnaires were captured on a Microsoft Excel spreadsheet where each row was a respondent and each column was a question or statement. The completed questionnaires were scored and analysed by an independent professional statistician. All data were imported and analysed, using statistical methods, specifically the statistical program platform, SPSS (Statistical Package for Social Sciences) version 21.0 for the Microsoft Windows platform (SPSS Inc., 2013) and Amos 21 (Arbuckle, 1995 – 2012).

4.5 FORMULATION OF THE RESEARCH HYPOTHESES

The research hypotheses were formulated in order to achieve the objectives of the research study. A hypothesis has been clearly defined as “a set of assumptions expressed in a coherent manner about the observable phenomena”. It is the

researcher's formal declaration that states the research prediction or description of the relationship between two or more variables in a particular population (Brink, 2006). The research hypotheses are summarised in Table: 4.9 below:

Table: 4.9
Research Hypotheses

Research Aim	Research Hypothesis	Statistical procedure
<p>Research aim 1: To empirically explore the nature and the inter-relationships between the independent psycho-social variables (conceptualised as self-worth, personality preferences and conflict resolution styles) and the dependent variable team cohesion</p>	<p>Ha₁: There are no statistically significant inter-relationships between the psycho-social variables (self-worth, personality preferences, conflict resolution styles and team cohesion)</p> <p>H₁: There are statistically significant inter-relationships between the psycho-social variables (self-worth, personality preferences, conflict resolution styles and team cohesion)</p>	<p>Spearman's correlation analysis</p> <p>Canonical Correlations analysis</p>
<p>Research aim 2: To empirically assess whether the psychological variables (conceptualised as self-worth and personality preferences) and sociological variable (conceptualised as conflict resolution styles) positively and significantly predict team cohesion (while controlling the socio-demographic variables)</p>	<p>H₂: The psycho-social variables (self-worth, personality preferences and conflict resolution styles) significantly predict team cohesion</p>	<p>Standard multiple linear regression analysis</p>
<p>Research aim 3: To empirically investigate the overall statistical relationship between the psychological variables (conceptualised as self-worth, personality preferences) the sociological variable (conceptualised as conflict resolution styles) and team cohesion, and to empirically assess the statistical fit between the elements of the empirically manifested structural model and the theoretically hypothesised model.</p>	<p>H₃: The overall statistical relationship between psycho-social variables (self-worth, personality preference and conflict resolution styles) determine whether there are a good fit between elements of the empirically manifested structural model</p>	<p>Structural equation modelling (SEM)</p>
<p>Research aim 4: To empirically assess whether socio-demographic variables (age, gender, race, qualifications, job level and tenure) significantly moderate the relationship between the psycho-social variables (conceptualised as self-worth, personality</p>	<p>H₅: There is a significant interaction (moderating) effect between the socio-demographic variables and the psycho-social variables in predicting team cohesion. The relationship is more positive for certain socio-</p>	<p>Hierarchical moderated regression analysis</p>

<p>preferences, and conflict resolution styles) and team cohesion</p>	<p>demographic groups than others, and when individuals' psycho-social attributes are high than when they are low.</p>	
<p>Research aim 5: To empirically investigate whether significant mean differences exist between the subgroup of socio-biographical variables (age, gender, race, qualifications, job level and tenure) that acted as significant moderators between the psycho-social variables, conceptualised as self-worth, personality preferences and conflict resolution styles and team cohesion, as manifested in the sample of respondents.</p>	<p>H₅: The socio-demographic groups (race, gender, age, qualification, job level and tenure) significantly differ regarding their psycho-social attributes (self-worth, personality preferences, conflict resolution styles) and team cohesion.</p>	<p>Tests for significant mean differences non-parametric sample Anova (Analysis of variance)</p>

4.6 STATISTICAL PROCESSING OF THE DATA

The statistical procedure relevant to this research study includes descriptive statistics (Bi-variate correlations analysis, Cronbach's Alpha coefficients, means, standard deviations, kurtosis and skewness and frequency data), correlational analysis, and inferential (multivariate) statistics (canonical correlation analysis, standard linear multiple regression analysis, structural equation modelling, hierarchical moderated regression analysis and tests for significant mean differences).

The data investigation process comprised three major stages, each consisting of various steps of statistical analysis, as depicted in Figure: 4.7.

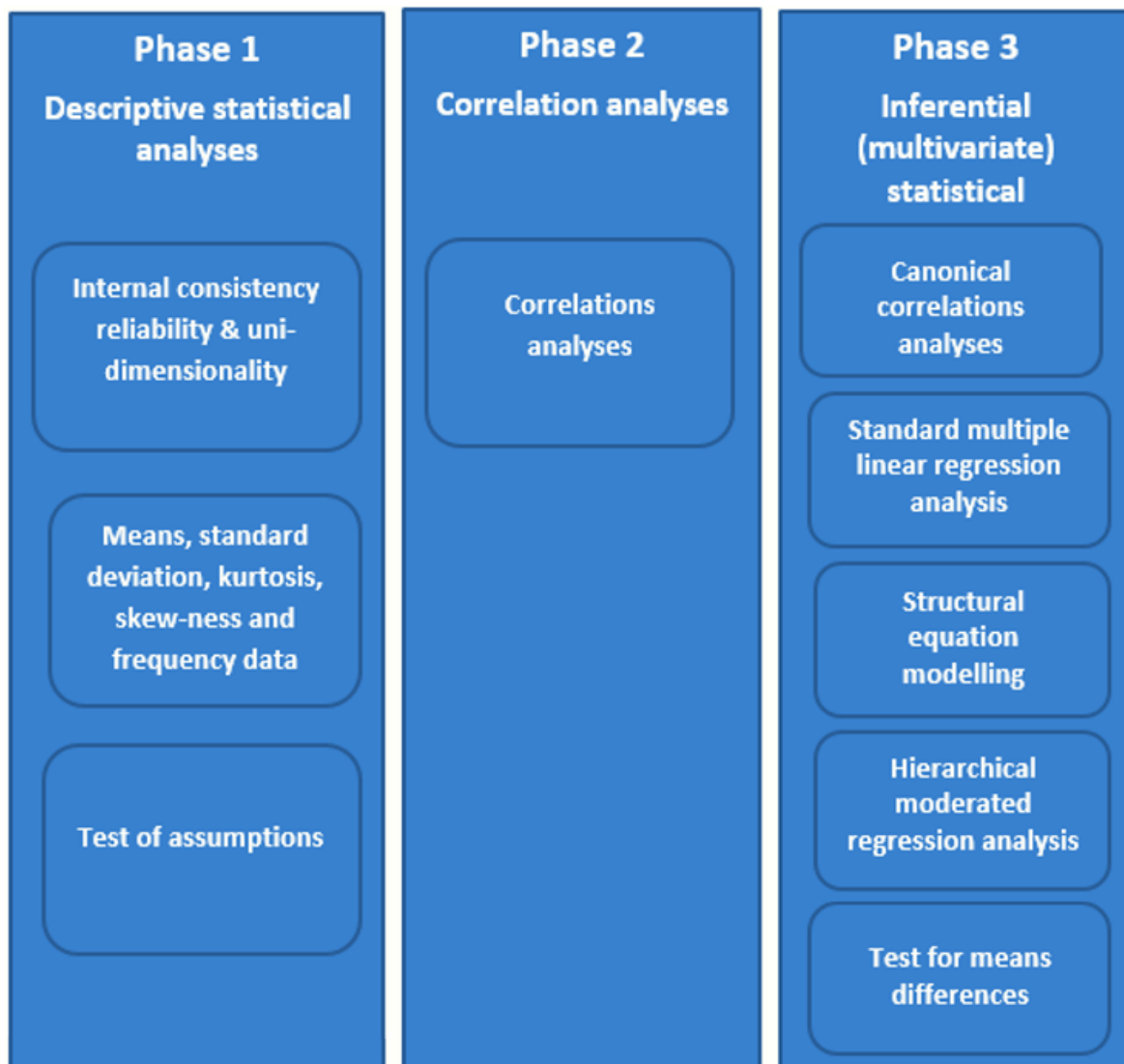


Figure: 4.7
Data analysis process and statistical procedures

4.6.1 Phase 1: Descriptive statistical analyses

Descriptive statistics summarise data in a meaningful numerical way. Descriptive statistical analyses are used to describe the characteristics of substantial amounts of data in a practical and reasonable manner (Tredoux & Durrheim, 2013). In this study, descriptive statistics were applied to explain the features of the data with regard to the research constructs, namely, self-worth, personality preferences, conflict management and team cohesion, including the socio-demographic variables.

This stage consists of four steps, namely:

- determining the internal consistency reliability of the measuring instruments by means of the Cronbach's Alpha coefficient;
- determining the means and standard deviations, kurtosis and skewness of the categorical and frequency data; and
- testing for assumptions

4.6.1.1 Step 1: Internal consistency reliability

Internal consistency reliability refers to a method to determine the consistency of the measuring instruments. This method is used to establish if the test measures what it is supposed to measure, and to determine whether the test results are consistent each time when measuring the same research constructs. The measuring instrument will display increased reliability when the different research constructs deliver consistent results (Tredoux & Durrheim, 2013). Dunn, Baguley and Brunson (2014) concur with Tredoux and Durrheim (2013) that the reliability of an instrument is an internal consistency of test or measure scores.

Reliability, also known as the Cronbach Alpha, is a frequently used coefficient that tests the extent to which multiple indicators for latent variables belong together (Nunnally & Bernstein, 2010). This means that the higher the Cronbach Alpha, the more reliable the item of the test will be. In the field of Consulting Psychology and the broader Social sciences discipline, a desirable cut-off for the Cronbach Alpha coefficient is .70 (Burns & Burns, 2008). Gordon (2015) confirmed that a high correlation coefficient is 1.00 and suggests a strong relationship between variables. However, Hair, Black, Babin and Anderson (2010) maintain that the lower limit of .60 for broad research purposes is acceptable in the Social sciences discipline.

The Cronbach Alpha coefficient was used to determine the internal consistency reliability of the four research instruments, as well as the average inter-relatedness among the various test items (Hogg & Tanis, 2010). The Cronbach Alpha coefficient was used in this study to determine the internal consistency reliability of the four instruments. The Cronbach's Alpha coefficients range from 0, which means that there is no internal consistency, to 1, which is indicative of the maximum internal consistency (Cohen, Manion & Morrison, 2011).

4.6.1.2 Step 2: Means and standard deviations, kurtosis, skewness and frequency data

The means and standard deviations for all the dimensions of the contingencies of self-worth (religion, family support, virtues, competition, work competence, pleasing others and approval from others), personality preferences, conflict management styles and team cohesion. were determined in the empirical study. The mean is calculated by dividing the total sum of the data by the number of values in the group to get an average mean score. The mean score provides a measure of the central tendency of the research sample (Salkind, 2012).

According to Tredoux and Durrheim (2013), the standard deviation (SD) is a method to measure the degree to which the group varies with regard to their mean scores. Standard deviations (SD), and minimum and maximum values are used to describe results. Standard deviations are the positive square root of the variance and measures the average of the deviations of each score from the mean, and measures the average distance of all the scores in the distribution from the mean or central point of the distribution. The left and right of the centremost point are mirror images of each other (Treiman, 2014).

Skewness is a measure to determine the absence of symmetry. Skewness refers to a measure of symmetry or lack of symmetry. That is, it is a set of data categorised as symmetrical if its centremost point is lying in the middle of the distribution, and it may be positively or negatively skewed. The distribution is positively skewed if the majority of the sample scores are in the lower range of the variable, and negatively skewed if the majority are in the upper range of the variable (Tredoux & Durrheim, 2013).

Kurtosis is a statistical method to measure how the data is distributed around the mean score. The data distribution can appear flat, or even peak in comparison to the normal distribution (Hogg & Tanis, 2010). Kurtosis refers to a measure of whether the data is

peaked or flat in relation to a normal distribution. Skewness and kurtosis values range between -1 and +1, the normal range recommended for conducting parametric tests (Cohen *et al.*, 2011). Frequency tables are used to describe scores for the socio-demographic variables, because the biographical questions are categorical in nature, and responses are presented by means of frequency distribution (Cohen *et al.*, 2011).

The normal symmetric distribution in a scientific research study has a kurtosis of 3. (<http://www.itl.nist.gov/div898/handbook.eda/section3/35h.htm> – retrieved on 17 June 2017).

4.6.1.3 Step 3: Tests for assumptions

According to Cohen *et al.* (2011), the primary objective of any scientific research is to draw valid conclusions and inferences from a sample of data from the population. Nevertheless, the random samples from a larger population may or may not provide exact values that are applicable to the whole population.

Cohen *et al.* (2011) suggested the following six assumptions underlying multivariate procedures and tests for significant mean differences, which may be used to determine the confidence level, and consequently make valid inferences:

- The accuracy of data entered into the data file and missing values,
- The ratio of cases to independent variables,
- The outliers (univariate and multivariate),
- Normality, linearity and homoscedasticity,
- Multicollinearity and singularity, and
- Levene's test of equality of variance.

Each of these assumptions will be briefly discussed in the section below.

(a) The accuracy of data entered into the data file and missing values

Hartas (2015) emphasised the importance of consistent and accurate data analysis and screening processes. Data screening is one of the key processes to be given special attention. Frequency statistics for each item were requested (SPSS 22, frequency procedure) and these were inspected with the minimum and maximum values, including means and standard deviations. Cohen *et al.* (2011) maintained that in order to improve the predictive power of analysis outcome, it is crucial to ensure that a variable that is measured according to five-point Likert-type scale should not have a

value of 6 or more. All the items fell within the possible range of values, and the data was, therefore, deemed acceptable for further examination. The researcher only included completed questionnaires for this research study; therefore, questionnaires with missing data were excluded.

The mean value for each variable can be calculated with some missing values by means of SPSS. Furthermore, the t-test can also be calculated with a lot of missing values of the identified or tested groups. However, these omissions must be interpreted in the research findings, in order to ensure that there are no over-generalisations (McGrath, 2014).

(b) Ratio of cases to independent variables

In any scientific research study an adequate sample size is a significant aspect that needs to be considered to obtain reasonable statistical power. According to Chen, Ibrahim and Chu (2011), the determination of a sample size is important for the achievement of adequate statistical power. The requirement for the testing of a multiple correlation coefficient, is to use the formula of $N \geq 50 + 8m$ (where m is the number of independent variables). In this formula, the standard conventional alpha and medium-sized relationships between the independent and dependent variable were assumed ($p = .05$ and $\beta = .20$).

Based on the above formula or equation, the required sample size was $N = 74$. The sample size of $N = 463$ obtained in this study was, therefore, considered adequate for achieving satisfactory statistical power for identifying effects by means of the correlation and regression analyses to be completed.

(c) Outliers (univariate and multivariable)

An outlier is a value that cascades further from the remainder of the values on a variable (Gordon, 2015). Extreme scores on one variable are referred to as univariate, and an unusual and extraordinary combination of scores on two or more variables that unjustifiably influence the statistics is regarded as multivariate (Hair *et al.*, 2010; Kline, 2011). Extreme outliers or an enormous amount of outliers may indicate non-normality or errors in the data (Gordon, 2015).

An outlier is an observation that seems to deviate from other observations in the distribution. It is a value that has a standard deviation that is three times above or below the mean (McGrath, 2014). In other circumstances, outliers can make the r value

much higher than it should be, and may also result in an underestimation of the relationship (Pallant, 2010). In light of the foregoing description, it is the researcher's view that an outlier can have a dramatic effect on the correlation coefficient, more particularly in small samples. An outlier cannot be construed as a measurement error, as they may indicate that they actually belong to a unique group in the sample, hence they cannot be simply discarded.

Jones (2016) concurs with McGrath (2014) that a statistical outlier is an observation in the distribution that diverges abnormally from the overall pattern of data. The outliers are generated by a qualitatively process distinct from the main body of the research data. According to Jones (2016), the research study can mitigate against outliers by using non-parametric statistics which have a high breakdown point which tend to be robust against extreme values in the distribution.

In the current research study, outliers were detected by examining the values that were sitting on their own in the scatter plots.

(d) Normality, linearity and homoscedasticity (uniform distribution)

A test for normality was performed to determine whether the data set is well modelled by the normal distribution (Cohen *et al.*, 2011). Multivariate normality assumes that each variable and all the linear combinations of the variables are distributed normally (Hair *et al.*, 2010). This research study made use of skewness and kurtosis, as well as the Kolmogorov-Smirnov test. Linear relationships and homoscedasticity among variables are dimensions of multivariate normality (Kline, 2011). The Kolmogorov-Smirnov could be used to compare a sample with a reference probability, and the distributions measured under the null hypothesis are continuous but otherwise unrestricted (Tabachnick & Fidel, 2013).

The Kolmogorov-Smirnov test quantifies the distance between the empirical distribution function of the sample and the cumulative distribution function of the reference distribution, or among empirical distribution and two samples. The assumption from the null hypothesis is that the samples are drawn from the same distribution (in a one-sample case) (Chen *et al.*, 2011). A stronger linear relationship is indicated when data points that are created outline an ellipse, where the longer axis slopes upwards from left to right (Tabachnick & Fidell, 2013).

According to Cohen *et al.* (2011), the Kolmogorov-Smirnov test in scientific research studies is considered to be the most commonly used nonparametric method for comparing samples. The test is primarily sensitive to differences in both the location and shape of the empirical cumulative functions of the two samples.

Linearity assumes that the relationship between the independent and dependent variables has a straight line. Thus, linearity is when the assumption is verified that there is a straight-line relationship between two variables, and the researcher will be able to fit a line between the X- and Y-values on a bivariate scatterplot (Schinka, Velicer & Weiner, 2003; Tabachnick & Fidell, 2013). There were no problems within scatterplots in this study.

The assumption of homoscedasticity for ungrouped data assumes that the variance of the value stays consistent for the independent variable and is similar at all values of the dependent variables (Tabachnick & Fidell, 2013). This assumption can be viewed as the variation of the values around the regression line that appears stable across the entire examined range of data when regression analyses methods are utilised (Osborne, 2010). Furthermore, this assumption of homoscedasticity occurs when the variance of the error terms (e) appears to be constant over a range of predictor variables, and the data is said to be homoscedastic (Tabachnick & Fidell, 2013).

This assumption is also perceived as an assumption of equal variance of the population error E (where E is estimated as e), which is critical to the proper application of many multivariate techniques. The homoscedasticity assumption is based on the fact that the residuals are approximately equal for all predicted dependent scores, or the variability in scores for the independent variables is the same at all values of dependent variables. Homoscedasticity is frequently seen through a cluster of points that becomes wider as the values for the predicted dependent variable become larger (Tabachnick & Fidell, 2013)

(e) Multicollinearity and singularity

Kline (2011) describes multicollinearity as the relationship among the independent variables that highly correlates with a set of other independent variables. Extreme collinearity can be observed when separate variables measure identical constructs. Multicollinearity occurs when the independent variables are highly correlated ($r = .90$ and above) The presence of such correlations indicate that the independent variables do not hold any additional information needed in the analysis (Cohen *et al.*, 2011).

Singularity can be seen as variables that have adequate correlations, while multicollinearity occurs when the variables are highly correlated ($r = .90$) (Hair *et al.*, 2010; Hogg & Tanis, 2010; Salkind, 2012). Singularity occurs when an independent variable is actually a combination of other independent variables, that is, when both subscale scores and the total score of a scale are included (Cohen *et al.*, 2011).

Cohen *et al.* (2011) proposed that when two independent variables are highly correlated, the researcher should reasonably consider omitting or discarding one variable, or alternately form a composite variable from the scores of the two highly correlated variables. The current research study utilised VIF (variance inflation factor), tolerance, eigen-values and condition indices in order to test for the assumptions of multicollinearity and singularity. The rule of thumb for VIF above 10 and tolerance values that are less than .10 indicate a potential multicollinearity problem (Hair *et al.*, 2010).

In this research study, the multicollinearity has been determined between the two independent variables using Spearman's correlation. The Spearman correlation was used to examine the correlation coefficient between the variables. This was conducted before hypothesis testing, with the aim of determining the extent to which the variables were tested (Hair *et al.*, 2010). The values of Spearman's correlation that were .90 and above were considered to be problematic.

(f) Levene's test of equality of variance

The classical Levene (1960) test is used to determine if samples have equal variances across subgroups on non-parametric variables; these variances across samples are known as homogeneity of variance. Statistical tests such as analysis of variance assume that variances are equal across the normally or non-normally distributed data (Cohen *et al.*, 2011). Levene's test can be used to verify that assumption. Pallant (2010) maintained that if Levene's test is significant ($p \leq .05$), the two variances are significantly different. If it is not significant ($p \geq .05$), it means that the two variances are not significantly different, and they are therefore considered to be approximately equal. This research study made use of the non-parametric Levene's test, as the data was non-parametric.

4.6.2 Phase 2: Spearman's correlation analyses

Correlation analyses test the direction and strength of the relationship between two or more variables, in order to determine concurrent correlations between numerous metric dependent variables and metric independent variables (Tredoux & Durrheim, 2013). The Spearman's correlation coefficient (r) was applied to assess the direction and magnitude between the constructs of psychological-related dispositional attributes (self-worth and personality preferences), conflict management styles and team cohesion, as demonstrated in a sample of respondents employed in the context of a South African Financial institute (Hair *et al.*, 2010). A high correlation coefficient is close to 1.00 and suggests a strong relationship between variables (Gordon, 2015; Tredoux & Durrheim, 2013).

The Spearman correlation coefficient (r) has values that range from -1.00 to $+1.00$. The sign of r provides information about the direction of the relationship between variables. A positive correlation of $+1.00$ indicates that as scores for the dependent (X) variable increase, scores for the independent (Y) variable also tend to increase. A negative correlation of -1.00 indicates that as scores of the dependent (X) variable increase, scores of the independent (Y) variable tend to decrease (Cohen *et al.*, 2011).

The statistical method that measures the degree of linear relationship between two variables is called the Spearman product moment correlation (Cohen *et al.*, 2011). In essence, the emphasis is placed on the degree to which a linear model may describe the relationship between two variables in terms of the direction or strength (Cohen *et al.*, 2011). A correlation coefficient may take on any value between 1 and -1, and the closer the coefficient is to either of these points, the stronger the relationship is between the variables. A correlation value between 0 and .3 indicates a weak linear relationship, a correlation value between .3 and .7 indicates a moderate linear relationship, while a correlation value .7 and 1.0 indicates a strong linear relationship (McGrath, 2014).

In this research study, the Spearman coefficient was utilised to examine and test for the statistically significant positive or negative interrelationships that exist between the psychological dispositional attributes (self-worth and personality preferences), conflict management styles and team cohesion, with specific reference to the positive or negative relationship that exists between the scores of CSWS, MBTI, T-K CRI and GCS. This will help to test hypothesis 1.

4.6.3 Phase 3: Inferential and multivariate statistics

Inferential and multivariate statistics were performed to make findings from the data. The inferential and multivariate statistics are used to draw conclusions that are beyond the direct data, which entails making inferences from the data obtained to more broad-spectrum conditions (Cohen *et al.*, 2011).

This phase entailed the following five steps:

1. Canonical correlation analysis

Canonical correlation analysis were conducted to assess the overall statistical relationship of the psycho-social dispositional attributes variables of self-worth, personality preferences and conflict resolution styles as a composite set of latent independent variables, and team cohesion, as a composite set of latent dependent variables in order to test hypothesis 1.

2. Standard multiple linear regression analysis

A Standard multiple regression analysis was conducted to empirically investigate whether psycho-social-related variables positively and significantly predict team cohesion in order to test hypothesis 2.

3. Structural equation modelling (SEM)

Structural equation modelling (SEM) was performed to empirically assess the statistical fit between the elements of the empirically manifested structural model and the theoretically conceptually model in order to test hypothesis 3.

4. Hierarchical moderated regression analysis

The hierarchical moderated regression analysis was performed to explore whether the socio-demographic variables also moderated the relationship between the psycho-social variables (self-worth, personality preferences and conflict resolution styles) and team cohesion, in order to test hypothesis 4.

5. Tests for significant mean differences

Tests for significant mean differences were conducted to determine whether individuals from various socio-biographical groups (age, gender, race, level of qualifications, job level and tenure) differ significantly regarding the independent

psycho-social variables, of self-worth, personality preferences and conflict resolution styles, and team cohesion (dependent variables), to test hypothesis 5.

4.6.3.1 Step 1: Canonical correlation analyses

The canonical correlation analysis is a multivariate statistical model scientifically viewed as an extension of the multiple regression analysis (Hair *et al.*, 2010). The canonical correlation is used to facilitate the study's overall interrelationships among a set of multiple independent and dependent variables, and it offers a better understanding of the potential relationship between the two sets of canonical variates (Hair *et al.*, 2010; Hancock & Mueller, 2010; Kline, 2011).

The canonical correlating coefficients only take on positive values and range from 0 to 1 (Hancock & Mueller, 2010). It is based on the correlation between two canonical variables, while the other one is for the independent variable (Breitung & Pigorsch, 2013). In essence, the purpose of canonical correlation is to qualify the strengths of the relationship between two sets of independent and dependent variables (Hair *et al.*, 2010).

The canonical correlation analysis offers several advantages for researchers. Firstly, it limits the probability of committing Type I errors. The risk of a Type I error refers to the probability of establishing a statistically significant outcome where no relation exists (Hair *et al.*, 2010). The canonical correlation analysis is seen as an analytical method for investigating multivariate relations between two sets of constructs, while each set entails two or more variables (Hancock & Mueller, 2010).

Secondly, the canonical correlation analysis may better reflect the reality of research studies, more especially when the research study involves human behaviour and interaction, which may suggest multiple variables that represent a concept, thus creating problems when variables are investigated in a simple relationship, rather than using separate relationships for independent and dependent variables.

The present research study involves multiple variables and therefore, the canonical correlation analysis method seems adequate to examine the strength and direction of the correlations between the variable sets with regard to empirical research aims 1.

Research Hypothesis H1 was tested by performing canonical correlation analyses.

Research aims 1: To empirically explore the nature and the inter-relationships between the independent psycho-social variables (self-worth, personality preferences and conflict resolution styles) and the dependent team cohesion.

4.6.3.2 Step 2: Standard multiple regression analyses

Multiple regression analysis is one of the multivariate statistical method utilised to investigate the collective contributions of the explanatory independent variables to the variance of the explained dependent variable (Cohen *et al.*, 2011). The aim of standard multiple regression analysis is to predict the variance in the dependent variable in response to the variance in the independent variables (Hair *et al.*, 2010; Hogg & Tanis, 2010).

According to Allison (2014), there are two reasons for using multiple regression, namely, prediction and causal analysis. The objective is to develop a formula based on the observed values of the independent variables. The application of multiple regression analysis allowed the researcher to assess which independent variables predicted the dependent variable, by giving the direction and magnitude of the effect of the independent variable on the dependent variables (Allison, 2014). In addition, the R^2 values indicate how well the independent variable explains the dependent variable (Hair *et al.*, 2010; Hogg & Tanis, 2010).

In the context of this study, a standard multiple regression was performed in order to determine the proportion of variance that is explained by the independent psycho-social-related variables (conceptualised as self-worth, personality preferences and conflict resolution styles) in the scores of the dependent variable, team cohesion.

Research Hypothesis H2 was tested by performing standard multiple regression analyses.

Research aim 2: To empirically assess whether the psychological variables (conceptualised as self-worth, personality preferences) and sociological variable (conceptualised as conflict resolution styles), positively and significantly predict team cohesion (while controlling the socio-biographic variables).

4.6.3.3 Step 3: Structural equation modelling (SEM)

The structural equation modelling (SEM) method was applied during the mediation modelling phase. SEM allows the researcher to model and test clusters of complex

hypotheses concurrently, while evaluating mean structures and group comparisons (Whitley & Kite., 2013, De Carvalho & Chima, 2014).

The structural equation modelling (SEM) is a statistical procedure that tests the theoretical model containing hypothesised sets of variables to define constructs and hypothesised relationships between these constructs (Kline, 2011). Firstly, it studies the causal procedures graphically indicated by a sequence of structural (regression) equations. Secondly, these illustrated graphical structural relationships are intended to ensure a better understanding of the research theory of the current research study. Furthermore, the hypothesised model can then be tested empirically, which involves simultaneous testing of all the research variables. That will allow the researcher to establish the degree to which the hypothesised model is consistent with the data (Byrne, 2010).

SEM is a multivariate statistical procedure that combines multiple regression, path analysis and factor analysis to examine a pattern of relationships among a set of variables (Whitley & Kite, 2013). For the purpose of this research study, it was presumed to be the measurement model. SEM was used to validate the canonical correlation model. SEM analysis was performed with the aim of validating the relationship among the composite psycho-social related variables (self-worth, personality preferences and conflict resolution styles) and team cohesion.

SEM is different from other modelling procedure, such as multiple regression analysis, because of its ability to make a distinction between direct and indirect relationships among variables, as well as its ability to analyse the relationship between latent variables without random error (Whitley & Kite, 2013). The SEM process emphasises the validation of the measurement and hypothesised model, by obtaining estimates of the parameters of the model and by determining whether the model itself provides a good fit to the data (Whitley & Kite, 2013).

Confirmatory factor analysis (CFA) plays a significant role in SEM, as it may confirm that the indicators sort themselves into factors corresponding to how the researcher has linked the indicators of the latent variable. Confirmatory analysis models are used to evaluate the role of measurement error in the model, validate a multifactorial model, and to determine group effects on the factors (Hair *et al.*, 2010).

In the third phase of the mediation modelling procedure as part of SEM, confirmatory factor analysis was used in order to test competing measurement models for each scale before testing the underlying structural mediation model. CFA allowed the researcher to test the research questions and determine whether the observed variables were truly good indicators of the underlying (latent) variables. Separate confirmatory factor models were performed for each set of the observed hypothesised variables to point out the relevant underlying variables. This would ensure increased validity of the measurement model (Byrne, 2010; De Carvalho & Chima, 2014).

SEM explains reasons behind the occurrence of research results while decreasing misleading results. Consequently, the hypothesised correlations are compared to the observed correlations. When the fit statistics are inadequate, the model should be specified and modification indices should be performed. Once adequate model fit statistics are obtained, the final adjusted model can be applied to test the statistical significance of the hypotheses (De Carvalho & Chima, 2014).

Research Hypothesis H3 was tested by performing structural equation modelling (SEM).

Research aim 3: To empirically investigate the overall statistical relationship between the psychological variables (conceptualised as self-worth and personality preferences), the sociological variable (conceptualised as conflict resolution styles) and team cohesion, and to empirically assess the statistical fit between the elements of the empirically manifested structural model and the theoretically conceptualised model.

Whitley and Kite (2013) maintained that SEM has become an important analysis approach tool widely accepted by scholars in the field of social sciences. They outlined the following advantages of using SEM:

- It has greater recognition of the validity and reliability of observed scores obtained from measurement instruments. Measurement error has become a huge issue in many disciplines.
- SEM has the ability to take into account the analysis of complicated and advanced theoretical models, which increases the ability to analyse complex theoretical models that include mediations and moderation.

- It allows for more flexible assumptions, as well as the attraction of the SEM's graphical modelling interface and the ability to test models with multiple dependents. In addition, SEM helps to compare alternative models in order to determine relative model fit.
- SEM software programs are user-friendly. Structural equation modelling was performed in this study with the help of AMOS 21 (Arbuckle, 1995-2012).

4.6.3.4 Step 4: Hierarchical moderated regression analyses

Hierarchical moderated regression analyses are used to empirically detect how a variable moderates or influences the nature of a relationship between variables (Hair *et al.*, 2010). In essence, a hierarchical moderated regression analysis enables the relationship between independent and dependent variables to be linked to other independent variables (moderator). The moderating effect occurs when the level of the third variable (age, gender, race, level of qualification, job level and tenure) influences or affects the relationship between the independent psycho-social variables (conceptualised as self-worth, personality preferences and conflict resolution styles) and team cohesion as the dependent variable.

In order to test the moderating effects, hierarchical moderated regression analysis is relevant and appropriate (Gaol, Kadry, Taylor & Li, 2014). In the current research study, hierarchical analysis was performed to determine whether the socio-demographic variables (age, gender, race, level of qualification, job level and tenure) significantly moderate the relationship between the psycho-social-related variables and team cohesion.

Research Hypothesis H4 was tested by performing hierarchical moderated regression analyses.

Research aim 4: To empirically assess whether socio-biographic variables (age, gender, race, qualifications, job level and tenure) significantly moderate the relationship between psycho-social variables conceptualised as self-worth, personality preferences and conflict resolution styles and team cohesion.

4.6.3.5 Step 5: Test for mean difference

The Mann-Whitney U test and the Kruskal-Wallis test (for non-parametric data) were conducted to identify significant differences between age, gender, race, level of education, job level and tenure that were shown to be variables that acted as

moderators between the psycho-social-related variables, conceptualised as self-worth, personality preferences and conflict resolution styles and team cohesion, to statistically establish differences between two or more groups. This procedure is an alternative to the one-way ANOVA, which allows for the comparison of more than two independent groups. The Mann-Whitney U test permits the researcher to rank the data for each condition and then to view the difference between the two rank totals (Pallant, 2010; Tredoux & Durrheim, 2013).

Research Hypothesis H5 was tested by conducting the Mann-Witney U test and the Kruskal-Wallis test.

Research aim 5: To empirically investigate whether significant mean differences exist between the subgroup of socio-demographic variables (age, gender, race, qualifications, job level and job tenure) that acted as significant moderators between the psycho-social variables, conceptualised as self-worth, personality preferences, conflict resolution styles and team cohesion, as manifested in the sample of respondents.

4.6.4 Statistical significance level

The statistical significant level of $p \leq .05$ was chosen and it provides 95% confidence in the research results and is accepted as standard when applied in other research contexts (Neuman, 2014; Hair *et al.*, 2010). The level of significance provides statistical significance, which offers various levels of research probability, varying from less significant to extremely significant, as illustrated below in Table: 4.10 (Tredoux & Durrheim, 2013).

Table: 4.10
Different levels of statistical significance

Probability level	Significance
.10	Less significant
.01 to .05	Significant
.001 to .01	Very significant
.001	Extremely significant

Source: Tredoux & Durrheim (2013)

Research results lower than the chosen significant p -value will lead to the null hypothesis being rejected and is viewed as statistically significant. Since the test is based on probabilities, there is a risk of making incorrect inferences. Researchers can make either a Type I or Type II error during the interpretation of results. Type I errors refer to a null hypothesis that is erroneously rejected, which indicates no relationship between research variables, when in reality a relationship does exist. Type II errors refer to a null hypothesis that is erroneously accepted which suggests that there is a relationship between variables, when in reality no relationship exists (Hair *et al.*, 2010; Hogg & Tanis, 2010).

4.6.4.1 Level of significance: Correlational statistical analysis

According to Cohen *et al.* (2003), the Spearman correlations coefficient (r) indicates the effect size of the absolute values as follows:

Small effect: $r \leq .20$

Medium effect: $r \geq .30 \leq .49$

Large effect: $r \geq .50$

The general level of significance of canonical correlations is seen as .05, which is the minimum acceptable level for interpretation. The size of the canonical correlation determines the practical significance of the canonical functions. The research will take the practical significance into account during interpretation. The adequate size for the correlation relationships is set on a R_c loading of $\geq .30$.

The significant cut-off level for rejecting the null hypothesis in the present study was established at $p \leq .05$ and $R_c \geq .30$ (Hair *et al.*, 2010).

4.6.4.2 Level of significance: statistical multiple regression

The statistical significance levels for the multiple regressions utilised in this research study were as follows:

$F(p) < .001$

$F(p) < .01$ and

$F(p) < .05$ as the cut-off point for rejecting the null hypotheses

In accordance with Cohen (1992), the adjusted $R^2 \leq .12$ (small practical effect size); $R^2 \geq .13 \leq .25$ (moderate practical effect size); $R^2 \geq .25$ (large practical effect size) will

be considered when interpreting the magnitude of the practical significance of the results:

$$F2 = (R2-R12)$$

F2 = practical effect size (.2 = small; .15 = moderate; .35 = large).

4.6.4.3 Statistical significance: Tests for significant mean differences

The significant level for the tests of mean differences is seen as significant and valid when the p -value is lower than $p \leq .05$.

4.6.4.4 Level of significance: structural equation modelling

The primary purpose of structural equation modelling (SEM) is to test the theories and determine the statistical significance of the hypothesised theoretical model that has practical and substantive relevance and importance. Geiser, Keller and Lockhart (2013) proposed SEM in analysing the statistical significance and substantive meaning of the hypothesised model. In this research study the researcher will consider the summarised following SEM fit indices:

The structural equation modelling fit statistics criteria will be presented in chapter 5 research results representing three models as follows (see Table: 4.11 below):

Table: 4.11
Structural Equation Modelling Results: Fit Statistics

Model	CMIN	Df	CMIN/df	p	CFI	RMSEA	SRMR	AGFI
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1

2

3

Note: CMIN(χ^2) = chi-square; df = degrees of freedom; p = significance level; CFI = comparative fit index; RMSEA = root-mean-square error of approximation; SRMR = standardised root-mean-square residual and AGFI = adjusted goodness-of-fit index.

- Chi Square (χ^2)
- Goodness of Fit Index (GFI)
- Normed Fit Index (NFI)
- Comparative Fit Index (CFI)
- Tucker-Lewis Index (TLI)
- Root Mean Square Error of Approximation (RMSEA); and
- Standardised Root Mean Square Residual (SRMR)

Chi Square (X^2)

Traditionally the Chi Square (X^2) as a statistical method is used to test the fit between the unrestricted sample covariance matrix and the restricted covariance matrix. It tests the null hypothesis that the covariance and mean direction in the population are equal to the model implied covariance matrix and mean direction. In essence, it is the test of exact model fit (Geiser *et al.*, 2013).

Chi Square (X^2) investigates whether distributions of categorical variables differ from each other. That is, categorical variables will yield data in a specified category. In the same breath numerical variables will also yield data in numerical form. However, according to Cohen *et al.* (2011), Chi Square (X^2) in instances where small samples are used, lacks statistical power, and as a result it is unable to discriminate between good fitting models and poor fitting models. In this research study, a large sample was used as a solution to address the identified lack of statistical power in a small sample.

Goodness of Fit Index (GFI) and Adjusted Goodness of Fit Index (AGFI)

The Goodness-of-Fit Index (GFI) is an absolute fit index that estimates the proportion of covariance in the sample data matrix. It is the extent to which the hypothesised model reproduces the covariance structure between the variables in the sample. It essentially demonstrates the proximity or how close the model comes to replicating the observed covariance matrix (Kline, 2011).

The main purpose of SEM is to determine a statistically significant hypothesised theoretical model, which has practical and functional meaning. The GFI value range is between 0 and 1. The model will have a satisfactory fit with the data when the GFI values are closer to 1.0 (Hamtiaux, Houssemand & Vrignaud., 2013; Park *et al.*, 2012).

On the other hand, the Adjusted Goodness of Fit Index (AGFI) differs from GFI in the sense that it adjusts for the number of degrees of freedom in the specified model. It is intended to address the issue of parsimony and tight-fistedness by incorporating a penalty for the inclusion of additional parameters. The AGFI is also considered to have absolute indices of fit, as its value range from 0 to 1.0, with values close to 1.0 being indicative of a good fit. The AGFI indices tend to increase along a larger sample size. It is commonly accepted that values of .90 or greater indicate well-fitting models (Kline, 2011).

Root Mean Square Error of Approximation (RMSEA)

The Root Mean Square Error of Approximation (RMSEA) is a supplementary statistical method viewed as a badness of fit index, where the value of 0 indicates best fit. The main factor of the RMSEA is that it examines the degree to which the model unsuccessfully fits with the data. The RMSEA estimates the overall level of inaccuracy, and highlights the fitting function value associated with the degrees of freedom (Hooper, Coughlan & Mullen, 2008).

RMSEA is based on the non-centrality chi-square distribution, where the non-centrality parameter allows for discrepancies between model-implied and sample covariances. It is robust under conditions of data non-normality (Kline, 2011). The main advantage of using RMSEA is its statistical ability to allow the confidence interval to be calculated around its value, because the known distribution values of the statistic allows for the poor fit hypothesis to be tested accurately (Kline, 2011).

Geiser *et al.* (2013) maintained that the RMSEA values within the range of .05 to .10 are considered to be an indication of fair fit, while values above .10 are considered to indicate poor fit, values of .05 and less indicate an exact and close approximation, whereas values up to .08 suggest a reasonable fit in the sample.

Root-Mean Square Residual (RMR) and Standardised Root Mean Square Residual (SRMR)

The Standardised Root-Mean-square Residual (SRMR) is an absolute measure to establish model fit. SRMR is viewed as the standardised variance between the observed correlational relationship and the hypothesised (predicted) correlational relationship (Hair *et al.*, 2010). A marginal value of SRMR for model acceptance is <.10 and a value of <.08 and lower is considered adequate for model fit (Hamtiaux *et al.*, 2013; Park *et al.*, 2012).

The SRMR together with RMR, which are coefficient standard measures for the evaluation of the model residuals (sample minus model-implied co-variances and means), are both the square root of the difference between the residuals of the sample covariance matrix and the hypothesised covariance (Hooper *et al.*, 2008).

The range of RMR is calculated based on the scales of each indicator, in the case where the questionnaire contains items with varying levels, and it becomes difficult to interpret the values (Kline, 2011). To resolve the problem, then the SRMR is used to

meaningfully interpret the calculations. Conventionally, small SRMR values indicate that the observed variance, covariance and means are well reproduced by the model on average, and values below .05 are considered to indicate a good fit (Geiser *et al.*, 2013).

Comparative Fit Index (CFI)

The Comparative Fit Index (CFI) is a normed and non-normed fit index used as adjuncts to chi-square statistics for evaluating the fit of a structural model (Bentler, 1990). It is used to calculate the fit of the hypothesised model compared to an independence model (Hooper *et al.*, 2008). The CFI is also known as the Bentler Comparative Fit Index, which is seen as an incremental fit index that measures the comparative progress in the fit of the empirical model over that of a baseline model (the independence model) (Kline, 2011). CFI values close to $>.90$ and higher are deemed as an acceptable model fit (Hamtiaux *et al.*, 2013; Park *et al.*, 2012).

According to Tabachnick and Fidell (2013), the original CFI by Bentler (1990) is a revised form of the Normed Fit Index NFI, which is credited for taking the sample size that is performing well, despite the small sample size, into consideration. The CFI statistical values range from 0.0 to 1.0, with values close to 1.0 indicating a good fit. CFI should be equal to or greater than .90 to accept the model. A cut-off point of .95 is proposed by Geiser *et al.* (2013).

The major pitfall of CFI is that it estimates the unknown population parameters. Hence, Bentler (1990) proposed a new coefficient that summarises the relative reduction in the non-centrality parameters of two nested models (estimators), namely, normed (CFI) and non-normed (FI) fit indexes.

Normed Fit Index (NFI) and Non-Normed Fit Index (NNFI)

Bentler (1990) made a distinction between the Normed Fit Index (NFI) and the Non-Normed Fit Index (NNFI). The NFI measures the model by comparing the (X^2) of the model to the (X^2) of the null model (Hooper *et al.*, 2008). The NFI's statistical values range from 0 to 1, with values greater than .90 considered to indicate a good fit (Bentley, 1990). However, Hooper *et al.* (2008) proposed the new cut-off criteria to be $NFI \geq .95$.

The major pitfall of NFI is its sensitivity to sample size, and it may underestimate the fit for samples smaller than 200 respondents (Kline, 2011). However, this problem is

resolved by the NNFI (Non-Normed Fit Index) which prefers smaller models and can indicate poor fit, regardless of other statistics pointing towards a good fit (Kline, 2011; Tabachnick *et al.*, 2013).

4.7 CHAPTER SUMMARY

Chapter 4 provided an overview of the first six steps of the empirical examination, namely, choosing, motivating and determining the psychometric instruments, description of the sample; ethical considerations and administration of the psychometric battery, capturing of data, formulation of the research hypotheses and statistical processing of data. The chapter also explored the three phases of the empirical investigation, which included the descriptive, correlational and inferential statistical analyses that will be used during the processing of the data. The chapter concluded with a discussion of the statistical significance levels, which will be applied during the interpretation of the data.

Chapter 5 will discuss the empirical study and the statistical procedures used for testing the research hypotheses, and addresses steps 1 to 5 in relation to the Research Study Aims 1 to 5 as defined in Table: 4.9.

CHAPTER 5: RESEARCH RESULTS

This chapter presents the results of the various statistical analyses that were performed in order to test the hypotheses formulated for the purposes of this research study. Step 7 (reporting and interpreting the results) and 8 (integration of the research findings) of the empirical research are presented in tables as well as in figures. The results will be interpreted and integrated with the literature review. The chapter starts with a discussion of descriptive statistics, followed by a discussion of correlational and inferential (multivariate) techniques.

5.1 DESCRIPTIVE STATISTICS

Descriptive statistics involves the reporting of raw scores and then organising or summarising these raw scores into a form that is more meaningful. This section discusses three main steps in descriptive statistics, namely, (1) the internal consistency reliability of the measuring instruments, which is calculated by means of the Cronbach's Alpha coefficient, (2) the confirmatory factor analysis (CFA) of the instruments, which were measured by structured equation modelling (SEM), and (3) the means and standard deviations, kurtosis and skewness of both the categorical data and the frequency of data.

5.1.1 Reporting and interpretation of scale reliabilities

These calculations are performed by means of the Cronbach Alpha coefficients (CSWS AND GCS). This section reports on the internal consistency reliabilities of the following measurement instruments: Contingencies of Self-Worth Scale (CSWS) (Crocker *et al.*, 2003); and Group Cohesion Scale (GCS) (Wongpakaran *et al.*, 2013).

5.1.2 Reporting of mean, standard deviations, skewness and kurtosis

The results for the means, standard deviations, skewness and kurtosis of CSWS, MBTI, T-K CRI and GCS are discussed and summarised in the sections below.

5.1.2.1 Contingencies of Self-Worth Scale (CSWS)

Table: 5.1 below shows that the CSWS family support ($M= 6.05$; $SD = 1.19$) was indicated as the most preferred self-worth domain.

Table: 5.1

Descriptive Statistics: Mean Scores, Standard Deviations, Skewness and Kurtosis for CSWS and Cronbach's Alpha

Variables	Mean	Std. Deviation	Skewness	Kurtosis	Alpha
Overall self-worth					.94
Family support	6.05	1.19	-1.272	.980	.86
Competition	5.41	1.65	-.951	.034	.94
Appearance	4.50	1.64	.150	-1.050	.79
Religion/ God's love	6.28	1.23	-2.031	3.955	.95
Work competence	6.00	1.14	-1.035	.314	.84
Virtue	5.72	.80	-.905	3.070	.88
Approval from others	4.85	1.72	-.136	-1.303	.82

Source: Researcher's own compilation

Table: 5.1 above indicates that the total sample scored the highest self-worth domain on the CSWS was religion/God's love (M = 6.28; SD = 1.23) and the lowest self-worth domain was appearance (M = 4.50; SD = 1.64) variables. This indicates that the participants' sense of self-worth is based on their internal contingencies. The participants appear not to base their sense of self-worth on their physical and outwards contingencies in their interpersonal team engagements in the workplace.

The participants' domains of family support (M = 6.05; SD 1.19) and work competence (M = 6.00; SD = 1.14) were relatively high, which suggests that their family approval and their perceived work competence increased their sense of worth in their interpersonal team interactions. The participants scored low on approval from others (M =4.85; SD 1.72) which suggests that they did not rely on others to determine their interpersonal team engagements.

Table: 5.1 above also indicates that all self-worth dimensions have high reliabilities. The family support, competition, appearance, God's love, work competence, virtue and approval from others variables obtained high internal reliabilities, ranging between .79 and .95 of Cronbach's Alpha.

5.1.2.2 The four dichotomies of Myers Briggs Type Indicator (MBTI) Instrument

Table: 5.2 below shows the four dichotomies of MBTI and their computed mean, standard deviation, skewness and kurtosis.

Table: 5.2
Sample scores of the MBTI

Variables	Mean	Std. Deviation	Skewness	Kurtosis
Personality preferences				
Extraversion (E)	12.21	5.30	-.540	-1.050
Introversion (I)	5.79	5.30	.540	-.1.050
Sensing (S)	8.22	2.85	.308	-.850
iNtuition (N)	9.78	2.85	-.308	-.850
Thinking (T)	10.55	3.59	-.021	-1.129
Feeling (F)	6.45	3.59	.021	-1.129
Judging (J)	13.41	3.63	-.463	-.716
Perceiving (P)	4.59	3.63	.463	-.716

Source: Researcher's own compilation

Table: 5.2 above indicates that the total sample scored the highest on the on the MBTI Extraversion-Introversion and Judging-Perceiving dichotomies. The participants scored high on Extraversion preference (M = 12.21; SD = 5.30) and judging preference (M = 13.41; SD = 3.63). This implied that participants' attitudes or orientation was directing energy mainly towards their outer world of people and objects. Secondly, they based their conclusions on logical analysis.

The total sample scored the lowest on the MBTI Sensing-iNtuition and Thinking-Feeling dichotomies. The participants scored low on Sensing preference (M = 8.22; SD = 2.85) and Feeling preference (M = 6.45; SD = 3.59). This implied that participants' functions or processes of perception and judging were less focused on what can be perceived by the five senses. Secondly, they were less likely to draw conclusions on personal or social values.

Reporting the frequency distribution of MBTI was scored by obtaining frequency across all the items within each subscale. The overall personality preference type was expressed as a percentage for the sample group. The data are only used to categorise the sample according to the personality preferences, and therefore only frequencies

and percentages are shown. Table: 5.3 presents the descriptive information for the eight MBTI subscales.

Table: 5.3
Frequency distribution of MBTI (N-463)

MBTI	Frequency	Valid percentage
Extraversion	299	64.5
Introversion	75	16.1
Sensing	101	21.8
iNtuition	241	52.1
Thinking	278	60.0
Feeling	69	14.9
Judging	281	60.7
Perceiving	69	14.9

Source: Researcher's own compilation

The participants scored the highest on the Extraversion (64.5%) and Judging (60.7%) attitudes, scored highest on iNtuition (52.1%) and Thinking (60.0%) mental functions. The overall frequency distribution of participants displayed the dominant preference of ENTJ.

a) Interpretation of frequencies: MBTI, Form M

In terms of the attitudes and orientation functions, the majority of the sample clusters were in the Extraversion (64.5%) and Thinking (60.0%) types. The participants showed a preference towards the iNtuition (52.1%) and Judging (60.7%) mental functions, which means that the sample tends towards the ENTJ personality type.

The objective of the MBTI is to classify participants into one of the following 16 personality types (Martins & Coetzee, 2007; Myers *et al.*, 2009):(see table 5.4).

Table: 5.4
Sixteen personality types

<p>ISTJ</p> <p>Depth of concentration Reliance on facts Logic and analysis Organisation</p>	<p>ISFJ</p> <p>Depth of concentration Reliance on facts Warmth and sympathy Organisation</p>	<p>INFJ</p> <p>Depth of concentration Grasp of possibilities Warmth and sympathy Organisation</p>	<p>INTJ</p> <p>Depth of concentration Grasp of possibilities Logic and analysis Organisation</p>
<p>ISTP</p> <p>Depth of concentration Reliance of facts Logic and analysis Adaptability</p>	<p>ISFP</p> <p>Depth of concentration Reliance on facts Warmth and sympathy Adaptability</p>	<p>INFP</p> <p>Depth of concentration Grasp of possibilities Warmth and sympathy Adaptability</p>	<p>INTP</p> <p>Depth of concentration Grasp of possibilities Logic and analysis Adaptability</p>
<p>ESTP</p> <p>Breadth of interests Reliance on facts Logic and analysis Adaptability</p>	<p>ESFP</p> <p>Breadth of interests Reliance on facts Warmth and sympathy Adaptability</p>	<p>ENFP</p> <p>Breadth of interests Grasp of possibilities Warmth and sympathy Adaptability</p>	<p>ENTP</p> <p>Breadth of interests Grasp of possibilities Logic and analysis</p>
<p>ESTJ</p> <p>Breadth of interests Reliance on facts Logic and analysis Organisation</p>	<p>ESFJ</p> <p>Breadth of interests Reliance on facts Warmth and sympathy Organisation</p>	<p>ENFJ</p> <p>Breadth of interests Grasp of possibilities Warmth and sympathy Organisation</p>	<p>ENTJ</p> <p>Breadth of interests Grasp of possibilities Logic and analyses Organisation</p>

The dominant preference of the sample was for the ENTJ personality type. According to Myers *et al.* (2009), ENTJ personality types are frank (forthright, honest, open, truthful and outspoken), decisive, and assume leadership readily. Quickly see illogical and inefficient procedures and policies, develop and implement comprehensive systems to solve organisational problems. Enjoy long-term planning and goal setting. They are usually well-informed, enjoy expanding their knowledge and passing it on to others and are forceful in presenting their ideas.

The dominant preference dynamic type of ENTJ can be summarised as follows:

Table: 5.5
The overall dominant personality type profile

E	Attitude or orientation of energy	I
S	Perceiving functions or processes	N
T	Judging functions or processes	F
J	Attitude or orientation to the outer world	P

5.1.2.3 Thomas-Kilmann Conflict Resolution Instrument (T-K CRI)

Table: 5.6 below shows the five conflict resolution styles and their computed mean, standard deviation, skewness and kurtosis.

Table: 5.6
The mean, standard deviation, skewness and kurtosis of T-K CRI

Variables	Mean	Std. Deviation	Skewness	Kurtosis
Conflict resolution styles				
Competing	4.55	4.48	.51	-1.2
Accommodating	5.79	2.17	-.25	-.67
Avoidance	5.46	2.09	.28	-.23
Compromising	7.34	1.92	-2.2	.02
Collaborating	8.86	3.01	-.24	-.83

Source: Researcher's own compilation

Table: 5.6 shows the mean, standard deviation, skewness and kurtosis of the Thomas-Kilmann Conflict Resolution Instrument. The mean value of competing was 4.55, accommodating 5.79, avoidance 5.46, compromising 7.34 and collaborating was 8.86. The standard deviation of competing was 4.48, accommodating was 2.17, avoidance

2.09, compromising 1.92 and collaborating was 3.01 The skewness of competing was .51, accommodating -.25, avoidance .28, compromising -2.2 and collaborating -.24. Lastly, the kurtosis of competing was -1.2, accommodating -.67, avoidance -.23, compromising .02 and collaborating was -.83.

The kurtosis and skewness measured the symmetry, or the lack of symmetry in the data distribution. The Kolmogorov-Smirnov test was used to measure the kurtosis and skewness. The skewness ranged between .28 and – 25, thereby falling within the -1 and +1 normality range coefficients for conducting parametric tests as suggested by Cohen *et al.* (2013). Furthermore, the kurtosis values ranged between .02 and -.83, thereby also falling within the -1 and +1 normality range as suggested by Cohen (2013).

5.1.2.4 Group Cohesion Scale (GCS)

Figure: 5.1 depicts the descriptive statistics, pertaining to mean scores, standard deviation, skewness, kurtosis and Cronbach Alpha.

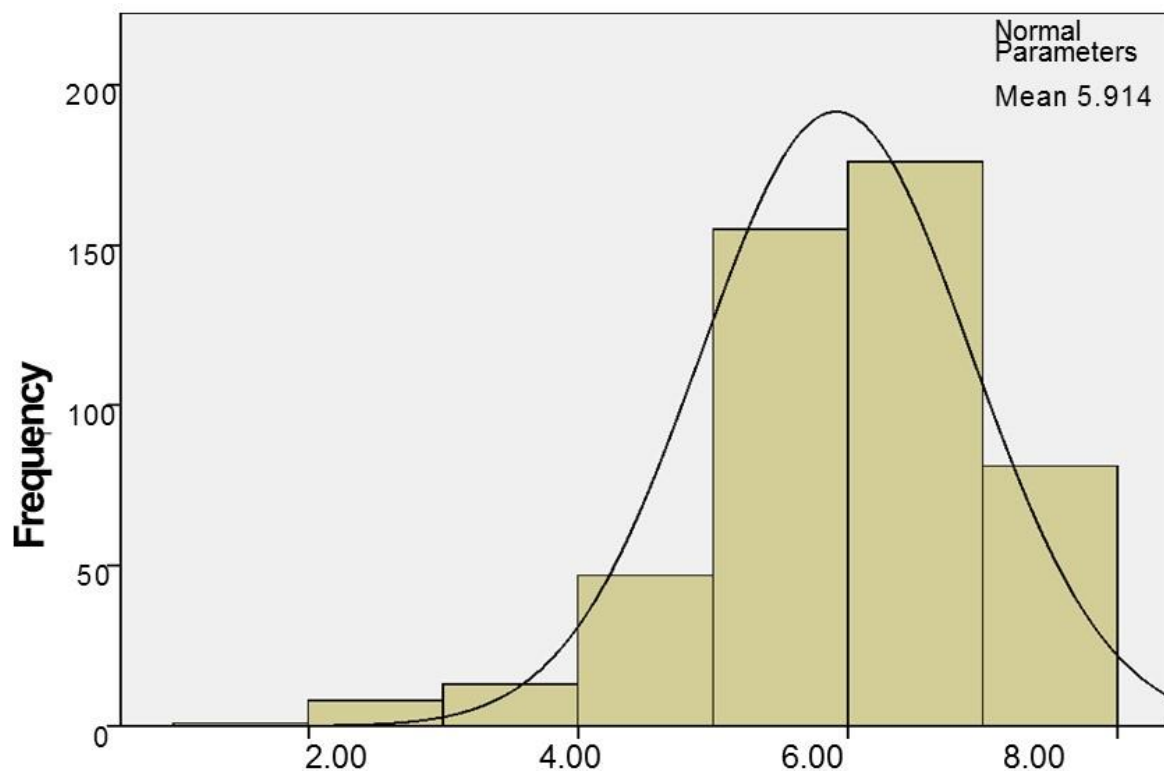


Figure: 5.1
One-Sample Kolmogorov-Smirnov Normal Test – Team Cohesion

Figure: 5.1 depicts the one-sample Kolmogorov-Smirnov test. The Kolmogorov-Smirnov is the commonly used non-parametric statistical method (Cohen *et al.*, 2011).

It measured the skewness and the degree of direction of asymmetry, and the kurtosis of the data. The set of data was asymmetrical and positively skewed to the right, with a mean score of 5.914 and a kurtosis of 3.359.

Table: 5.7 indicates that all the items of the GCS, namely, mean scores, standard deviations, skewness, kurtosis and Cronbach's Alpha have high reliabilities. The overall high Cronbach's Alpha coefficient of .93, can be considered adequate for the purpose of the present study.

Table: 5.7

Overall results of the GCS mean scores, standard deviations, skewness, kurtosis and Cronbach's Alpha

	Minimum	Maximum	Mean	SD	Skewness	Kurtosis	Overall Alpha
GCS	1.00	7.00	5.914	1.00192	-1.545	3.359	.93

Notes: N = 463

Table: 5.7 above shows that the mean score value was 5.914, indicating high scores by the participants pertaining to team cohesiveness. The mean score was obtained by summing all the participants' scores for each item and then dividing the total score for each item by 7. Each individual item ranged from 1 to 7. A 1 would be minimum score that would result if a participant scored each of the items as a 1, and likewise a score of 7 is possible if all items were scored as a 7. The skewness value for GCS was - 1.545 and the kurtosis value for GCS was 3.359.

5.2 CORRELATIONAL STATISTICS

To investigate the nature of the inter-relationship between the variables in this study, descriptive statistics had to be transformed into explanatory statistics to test the research hypotheses H01 and Ha1 (Tredoux & Durrheim, 2013). The relationship between the variables was calculated by means of Spearman's correlations coefficient. These correlations allow the researcher to identify the strength and direction of the relationship between each of the variables of each instrument.

The Spearman's correlations coefficient (rho) was conducted to investigate the strength of a relationship between two variables, using SPSS statistics. The correlation should be large and positive to be deemed to have a high probability, conversely, a

large and negative correlation is deemed to be the reverse (Xu, Hou, Hung & Zou, 2013).

Tredoux and Durrheim (2013) concurred with Xu *et al.* (2013) that correlation statistics tests the direction of the strength of the relationship between two or more variables, and the strength of this relationship is represented by a correlation. This research study investigated the strength of the linear relationship between the socio-biographical variables of age, gender, race, level of education, job level and tenure on CSWS, MBTI, T-K CRI and GCS

The Spearman’s correlation coefficient has values that range from – 1.00 to + 1.00. (see table 5.8 below). The sign of (rho) provides information about the direction of the relationship between the variables (Xu *et al.*, 2013). A high and positive correlation of + 1.00 indicates that there is strong relationship between the variables (Gordon, 2015). The Spearman’s rho was chosen as it can play complementary roles in circumstances where Spearman correlation coefficient is no longer effective (Xu *et al.*, 2013).

Furthermore, since the sample data are non-parametric, the interrelationships between and among variables were computed using Spearman’s correlations. Spearman’s correlations allowed the researcher to identify the direction and strength of the relationships between and among variables. A cut-off of $p \leq .05$ ($r \leq .30$, medium practical effect size) was used to interpret the significance of the findings.

Taken as a rule of thumb, the following scales by Howell (2008) are used for interpreting the correlations:

Table: 5.8
Spearman correlation interpretations values

Weak relationship	Moderate relationship	Strong relationship
.0 to .3	.3 to .7	.7 to 1.0

Source: Howell (2008)

- Values between .0 and .3 indicate a weak relationship.
- Values between .3 and .7 indicate a moderate linear relationship.
- Finally, values between .7 and 1.0 indicate a strong linear relationship

5.2.1 Reporting on Spearman's correlation coefficients

The reporting on Spearman's correlation coefficients involves the following measuring instruments, namely, CSWS, MBTI, T-K CRI, GCS and Biographical variables.

5.2.1.1 Relationship between independent variables CSWS, MBTI and T-K CRI

The simple Spearman bivariate statistical analysis was conducted in order to investigate the relationship among variables in the present study. The tables below are reported to show the descriptive quantitative nature of the investigated relationship between the contingencies of self-worth domains and the personality preferences variables.

Table: 5.9 below reports the Spearman's correlation coefficients of contingencies of self-worth domains versus personality preferences.

Table: 5.9
Spearman's correlations (CSWS and MBTI) (N=463)

CSWS	MBTI								
		E	I	S	N	T	F	J	P
Family support	r	.38*** ++	-.38	-.11	.11** +	.26*** +	-.26	.40*** ++	-.40
Competition	r	.13** +	-.13**	.08* +	-.08	.30* ++	-.30	.21*** +	-.21
Physical appearance	r	.17*** +	-.17	.28* +	-.28	-.33	.33*** ++	-.11	.11** +
Religion/Love of God	r	.35** ++	-.35	-.78	.78* +++	.15** +	-.15	.32*** ++	-.32
Work competence	r	.42*** ++	-.42	-.78	.78* +++	.24*** +	-.24	.42*** ++	-.42
Virtue	r	.25*** +	-.25	-.06+	.06** +	.25*** +	-.25	.37*** ++	-.37
Approval from others	r	.42*** ++	-.42	-.06+	.06** +	.02** +	-.02	.22*** +	-.22

*** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$ (two-tailed)

+ $r \leq .29$ (small practical effect size) ++ $r \geq .30 \leq .49$ (medium practical effect size)

+++ $r \geq .50$ (large practical effect size)

Note: The table below describes the abbreviations used in Table: 5.9 above to explain the participants' personality preferences

E	Extraversion	I	Introversion
S	Sensing	N	iNtuition
T	Thinking	F	Feeling
P	Perceiving	J	Judging

Significant positive relationships were observed between some CSWS and MBTI variables. Some subscales (family support, competition, physical appearance, religion / love of God, work competence, virtue and approval from others) show a significant positive relationship with some MBTI (extraversion, introversion, sensing, intuition, thinking, feeling, judging and perceiving) variables.

Perception of family support revealed a significant positive relationship with:

- Extraversion ($r = .38$; medium practical effect size, $p \leq .001$)
- iNtuition ($r = .11$; small practical effect size, $p \leq .01$)
- Thinking ($r = .26$: small practical effect size, $p \leq .001$)
- Judging ($r = .40$: medium practical effect size, $p \leq .001$)

Perception of competition revealed a significant positive relationship with:

- Extraversion ($r = .13$; small practical effect size, $p \leq .01$)
- Sensing ($r = .78$; large practical effect size, $p \leq .05$)
- Thinking ($r = .30$: medium practical effect size, $p \leq .05$)
- Judging ($r = .21$: small practical effect size, $p \leq .001$)

Perception of physical appearance revealed a significant positive relationship with:

- Extraversion ($r = .17$; small practical effect size, $p \leq .001$)
- Sensing ($r = .28$; small practical effect size, $p \leq .001$)
- Feeling ($r = .33$; medium practical effect size, $p \leq .001$)
- Perceiving ($r = .11$; small practical effect size, $p \leq .01$)

Perception of religion / love of God revealed a significant positive relationship with:

- Extraversion ($r = .35$; medium practical effect size, $p \leq .001$)
- iNtuition ($r = .08$; small practical effect size, $p \leq .05$)

- Thinking ($r = .15$; small practical effect size, $p \leq .01$)
- Judging ($r = .32$; medium practical effect size, $p \leq .001$)

Perception of work competence revealed a significant positive relationship with:

- Extraversion ($r = .42$; medium practical effect size, $p \leq .001$)
- iNtuition ($r = .78$; large practical effect size, $p \leq .05$)
- Thinking ($r = .24$; small practical effect size, $p \leq .001$)
- Judging ($r = .42$; medium practical effect size, $p \leq .001$)

Perception of virtue revealed a significant positive relationship with:

- Extraversion ($r = .25$; small practical effect size, $p \leq .001$)
- iNtuition ($r = .06$; small practical effect size, $p \leq .01$)
- Thinking ($r = .25$; small practical effect size, $p \leq .001$)
- Judging ($r = .37$; medium practical effect size, $p \leq .001$)

Perception of approval from others revealed a significant positive relationship with:

- Extraversion ($r = .42$; medium practical effect size, $p \leq .001$)
- iNtuition ($r = .07$; small practical effect size, $p \leq .01$)
- Thinking ($r = .02$; small practical effect size, $p \leq .01$)
- Judging ($r = .22$; small practical effect size, $p \leq .001$)

The tables below show the descriptive quantitative nature of the investigated relationship between the contingencies of self-worth domains and the Thomas-Kilmann conflict resolution styles variables.

Table: 5.10 below reports the Spearman's correlation coefficients of the contingencies of self-worth domains versus the conflict resolution styles.

Table: 5.10
Spearman's correlations (CSWS and T-K CRI) (N=463)

CSWS	T-K CRI					
		Competing	Accommodating	Avoidance	Compromising	Collaborating
Family support	r	-.15	.10** +	-.32	.15*** +	.29*** +
Competition	r	.13* +	-.04	-.23	-.10	.05** +
Physical appearance	r	-.04	.17** +	-.02	-.05	.00
Religion/Love of God	r	-.10	.04** +	-.20	.07** +	.23*** +
Work competence	r	-.13	.31* ++	-.31	.16*** +	.29*** +
Virtue	r	.03* +	-.09	-.29	.07** +	.18*** +
Approval from others	r	-.27	.31*** ++	-.31	.16*** +	.29*** +

*** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$ (two-tailed)

+ $r \leq .29$ (small practical effect size) ++ $r \geq .30 \leq .49$ (medium practical effect size)

+++ $r \geq .50$ (large practical effect size)

Significant positive relationships were observed between some CSWS and TK CRI variables. Some subscales (family support, competition, physical appearance, religion / love of God, work competence, virtue and approval from others) show a significant positive relationship with some T-K CRI (competing, accommodating, compromising and collaborating) variables.

Perception of family support revealed a significant positive relationship with:

- Accommodating ($r = .10$; small practical effect size, $p \leq .01$)
- Compromising ($r = .15$; small practical effect size, $p \leq .001$)
- Collaborating ($r = .29$; small practical effect size, $p \leq .001$)

Perception of competition revealed a significant positive relationship with:

- Competing ($r = .13$; small practical effect size, $p \leq .05$)
- Collaborating ($r = .05$; small practical effect size, $p \leq .01$)

Perception of physical appearance revealed a significant positive relationship with:

- Accommodating ($r = .17$; small practical effect size, $p \leq .001$)

Perception of religion / love of God revealed a significant positive relationship with:

- Accommodating ($r = .04$; small practical effect size, $p \leq .01$)
- Compromising ($r = .07$; small practical effect size, $p \leq .01$)
- Collaborating ($r = .23$; small practical effect size, $p \leq .000$)

Perception of work competence revealed a significant positive relationship with:

- Accommodating ($r = .31$; medium practical effect size, $p \leq .05$)
- Compromising ($r = .16$; small practical effect size, $p \leq .001$)
- Collaborating ($r = .29$; small practical effect size, $p \leq .001$)

Perception of virtue revealed a significant positive relationship with:

- Competing ($r = .03$; small practical effect size, $p \leq .05$)
- Compromising ($r = .07$; small practical effect size, $p \leq .01$)
- Collaborating ($r = .18$; small practical effect size, $p \leq .001$)

Perception of approval from others revealed a significant positive relationship with:

- Accommodating ($r = .31$; medium practical effect size, $p \leq .001$)
- Compromising ($r = .16$; small practical effect size, $p \leq .001$)
- Collaborating ($r = .29$; small practical effect size, $p \leq .001$)

Table: 5.11 below reports the Spearman's correlation coefficients of the contingencies of MBTI and T-K CRI.

Table: 5.11
Spearman's correlations (MBTI and T-K CRI) (N=463)

MBTI	T-K CRI					
		Competing	Accommodating	Avoidance	Compromising	Collaborating
E	r	-.22	.15*** +	-.38	.10** +	.43*** ++
I	r	.22*** +	-.15	.38*** ++	-.10	-.43
S	r	.17*** +	.01* +	.16*** +	-.16	-.28
N	r	-.17	-.01	-.16	.16*** +	.28*** +
T	r	-.04	-.16	-.24	.19*** +	.22*** +
F	r	.04* +	.16** +	.24*** +	-.19	-.22
J	r	-.14	-.08	-.34	.30*** +	.31*** ++
P	r	.14*** +	.08** +	.34*** ++	-.31	-.31

*** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$ (two-tailed)

+ $r \leq .29$ (small practical effect size) ++ $r \geq .30 \leq .49$ (medium practical effect size)

+++ $r \geq .50$ (large practical effect size)

Significant positive relationships were observed between some MBTI and T-K CRI variables. Some subscales (extraversion, introversion, sensing, intuition, thinking, feeling, judging and perceiving) show a significant positive relationship with some T-K CRI (competing, Accommodating, avoiding, compromising and collaborating) variables.

Perception of extraversion revealed a significant positive relationship with:

- Accommodating ($r = .15$; small practical effect size, $p \leq .001$)
- Compromising ($r = .10$; small practical effect size, $p \leq .01$)
- Collaborating ($r = .43$; medium practical effect size, $p \leq .001$)

Perception of introversion revealed a significant positive relationship with:

- Competing ($r = .22$; small practical effect size, $p \leq .001$)
- Avoidance ($r = .38$; medium practical effect size, $p \leq .001$)

Perception of sensing revealed a significant positive relationship with:

- Competing ($r = .17$; small practical effect size, $p \leq .001$)
- Accommodating ($r = .01$; small practical effect size, $p \leq .05$)
- Avoidance ($r = .16$; small practical effect size, $p \leq .001$)

Perception of intuition revealed a significant positive relationship with:

- Compromising ($r = .16$; small practical effect size, $p \leq .001$)
- Collaborating ($r = .28$; small practical effect size, $p \leq .001$)

Perception of thinking revealed a significant positive relationship with:

- Competing ($r = .19$; small practical effect size, $p \leq .001$)
- Collaborating ($r = .22$; small practical effect size, $p \leq .001$)

Perception of feeling revealed a significant positive relationship with:

- Competing ($r = .04$; small practical effect size, $p \leq .05$)
- Accommodating ($r = .16$; small practical effect size, $p \leq .01$)
- Avoidance ($r = .24$; small practical effect size, $p \leq .001$)

Perception of judging revealed a significant positive relationship with:

- Compromising ($r = .30$; medium practical effect size, $p \leq .001$)
- Collaborating ($r = .31$; medium practical effect size, $p \leq .001$)

Perception of perceiving revealed a significant positive relationship with:

- Competing ($r = .14$; small practical effect size, $p \leq .001$)
- Accommodating ($r = .08$; small practical effect size, $p \leq .01$)
- Avoidance ($r = .34$; medium practical effect size, $p \leq .001$)

5.2.1.2 Relationship between socio-biographic variables and CSWS, MBTI, T-K CRI and GCS

Table: 5.12 below reports the Spearman's correlation coefficients of the contingencies of Socio-biographical variables and MBTI.

Table: 5.12
Spearman's correlations (socio-biographical variables and MBTI) (N=463)

Socio-biographical variables	MBTI								
		E	I	S	N	T	F	J	P
Age	r	-.19	.19*** +	.18** +	-.18	-.34	.34*** ++	-.35	.35*** ++
Gender	r	-.56	.56* +++	-.10	.10*** +	.14*** +	-.14	-.17	.17** +
Race	r	.16** +	-.16	.07** +	-.07	-.18	.18*** +	-.42	.42*** +
Qualifications	r	-.00	.00**	-.13	.13*** +	.21*** +	-.21	.22*** +	-.22
Job level	r	.02** +	-.02	-.27	.27*** +	.34*** ++	-.34	.32*** ++	-.32
Job tenure	r	.26*** +	-.26	-.23	.23*** +	.37*** ++	-.37	.43*** ++	-.43

*** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$ (two-tailed)

+ $r \leq .29$ (small practical effect size) ++ $r \geq .30 \leq .49$ (medium practical effect size)

+++ $r \geq .50$ (large practical effect size)

Significant positive relationships were observed between some socio-biographical variables and MBTI variables. Some subscales (age, gender, race, qualifications, job level and job tenure) show a significant positive relationship with some MBTI (extraversion, introversion, sensing, intuition, judging and perceiving) variables.

Perception of age revealed a significant positive relationship with:

- Introversion ($r = .19$; small practical effect size, $p \leq .001$)
- Sensing ($r = .18$; small practical effect size, $p \leq .01$)
- Feeling ($r = .34$; medium practical effect size, $p \leq .001$)
- Perceiving ($r = .35$; medium practical effect size, $p \leq .001$)

Perception of gender revealed a significant positive relationship with:

- Introversion ($r = .56$; large practical effect size, $p \leq .05$)
- iNtuition ($r = .10$; small practical effect size, $p \leq .001$)
- Thinking ($r = .14$; small practical effect size, $p \leq .001$)
- Perceiving ($r = .17$; small practical effect size, $p \leq .01$)

Perception of race revealed a significant positive relationship with:

- Extraversion ($r = .16$; small practical effect size, $p \leq .01$)
- Sensing ($r = .07$; small practical effect size, $p \leq .01$)
- Feeling ($r = .18$; small practical effect size, $p \leq .001$)
- Perceiving ($r = .42$; medium practical effect size, $p \leq .001$)

Perception of qualifications revealed a significant positive relationship with:

- iNtuition ($r = .13$; small practical effect size, $p \leq .001$)
- Thinking ($r = .21$; small practical effect size, $p \leq .001$)
- Judging ($r = .22$; small practical effect size, $p \leq .001$)

Perception of job level revealed a significant positive relationship with:

- Extraversion ($r = .02$; small practical effect size, $p \leq .01$)
- iNtuition ($r = .27$; small practical effect size, $p \leq .001$)
- Thinking ($r = .34$; medium practical effect size, $p \leq .001$)
- Judging ($r = .32$; medium practical effect size, $p \leq .001$)

Perception of job tenure revealed a significant positive relationship with:

- Extraversion ($r = .26$; small practical effect size, $p \leq .001$)
- iNtuition ($r = .23$; small practical effect size, $p \leq .001$)
- Thinking ($r = .37$; medium practical effect size, $p \leq .001$)
- Judging ($r = .43$; medium practical effect size, $p \leq .001$)

Table: 5.13 reports the Spearman's correlation coefficients of the contingencies of socio-biographical variables and CSWS.

Table: 5.13
Spearman's correlations (socio-biographical variables and CSWS) (N=463)

Socio-biographical variables	CSWS							
		FS	CO	PA	RE	WC	VI	AO
Age	r	-.32	-.15	.12** +	-.34	-.34	-.32	-.15
Gender	r	-.22	-.24	-.62	-.15	-.22	-.02	-.26
Race	r	-.34	-.15	.12** +	-.34	-.32	-.32	-.15
Qualifications	r	.00	-.07	.11* +	.05*** +	.02*** +	-.01	-.02
Job level	r	.15* +	-.03	-.01	.09* +	.12* +	.23** +	-.02
Tenure	r	.40*** ++	.25*** +	-.05	.45*** ++	.42*** ++	.33*** +	.28*** +

*** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$ (two-tailed)

+ $r \leq .29$ (small practical effect size) ++ $r \geq .30 \leq .49$ (medium practical effect size)

+++ $r \geq .50$ (large practical effect size)

FS	Family support
CO	Competition
PA	Physical appearance
RE	Religion/ love of god
WC	Work competence
VI	Virtue
AO	Approval from others

Significant positive relationships were observed between some socio-biographical variables and CSWS variables. Some subscales (age, race, qualifications, job level and job tenure) show a significant positive relationship with some CSWS (family support, competition, physical appearance, work competence, virtue and physical appearance) variables.

Perception of age revealed a significant positive relationship with:

- Physical appearance ($r = .12$; small practical effect size, $p \leq .01$)

Perception of race revealed a significant positive relationship with:

- Physical appearance ($r = .12$; small practical effect size, $p \leq .01$)

Perception of qualifications revealed a significant positive relationship with:

- Physical appearance ($r = .11$; small practical effect size, $p \leq .05$)
- Religion ($r = .05$; small practical effect, $p \leq .05$)
- Work competence ($r = .02$; small practical effect size, $p \leq .001$)

Perception of job level revealed a significant positive relationship with:

- Family support ($r = .15$; small practical effect size, $p \leq .05$)
- Religion ($r = .09$; small practical effect size, $p \leq .05$)
- Work competence ($r = .12$; small practical effect size, $p \leq .05$)
- Virtue ($r = .23$; small practical effect size, $p \leq .01$)

Perception of job tenure revealed a significant positive relationship with:

- Family support ($r = .40$; medium practical effect size, $p \leq .001$)
- Competition ($r = .25$; small practical effect size, $p \leq .001$)
- Religion ($r = .45$; medium practical effect size, $p \leq .001$)
- Work competence ($r = .42$; medium practical effect size, $p \leq .001$)
- Virtue ($r = .33$; medium practical effect size, $p \leq .001$)
- Approval of others ($r = .28$; small practical effect size, $p \leq .001$)

Table: 5.14 below reports the Spearman's correlation coefficients of the contingencies of Socio-biographical variables and T-K CRI.

Table: 5.14
Spearman's correlations (socio-biographical variables and T-K CRI) (N=463)

Socio-biographical variables	T-K CRI					
		COMPE	ACCOM	AVOID	COMPR	COLLA
Age	r	.04* +	.11* +	.17*** +	-.20	-.10
Gender	r	.09* +	-.18	.02** +	.09* +	-.09
Race	r	-.16	.16* +	.33*** ++	.02* +	-.05
Qualifications	r	.09** +	-.21	-.08	.10* +	-.03
Job level	r	.11** +	-.28	-.12	.09** +	.03* +
Tenure	r	-.08	-.08	-.30	.22*** +	.20*** +

*** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$ (two-tailed)

+ $r \leq .29$ (small practical effect size) ++ $r \geq .30 \leq .49$ (medium practical effect size)

+++ $r \geq .50$ (large practical effect size)

COMPE	Competing
ACCOM	Accommodating
AVOID	Avoiding
COMPR	Compromising
COLLA	Collaborating

Significant positive relationships were observed between some socio-biographical variables and T-K CRI variables. Some subscales (competing, accommodating, avoiding, compromising and collaborating) show a significant positive relationship with all socio-biographical (age, gender, race, qualifications, job level and tenure) variables.

Perception of age revealed a significant positive relationship with:

- Competing ($r = .04$; small practical effect size, $p \leq .05$)

- Accommodating ($r = .11$; small practical effect size, $p \leq .05$)
- Avoiding ($r = .17$; small practical effect size, $p \leq .001$)

Perception of gender revealed a significant positive relationship with:

- Competing ($r = .09$; small practical effect size, $p \leq .05$)
- Avoiding ($r = .02$; small practical effect size, $p \leq .01$)
- Compromising ($r = .09$; small practical effect size, $p \leq .05$)

Perception of race revealed a significant positive relationship with:

- Accommodating ($r = .16$; small practical effect size, $p \leq .05$)
- Avoiding ($r = .33$; medium practical effect size, $p \leq .001$)
- Compromising ($r = .02$; small practical effect size, $p \leq .05$)

Perception of qualification revealed a significant positive relationship with:

- Competing ($r = .09$; small practical effect size, $p \leq .01$)
- Compromising ($r = .10$; small practical effect size, $p \leq .05$)

Perception of job level revealed a significant positive relationship with:

- Competing ($r = .11$; small practical effect size, $p \leq .01$)
- Compromising ($r = .09$; small practical effect size, $p \leq .01$)
- Collaborating ($r = .03$; small practical effect size, $p \leq .05$)

Perception of tenure revealed a significant positive relationship with:

- Compromising ($r = .22$; small practical effect size, $p \leq .001$)
- Collaborating ($r = .20$; medium practical effect size, $p \leq .001$)

5.2.1.3 Relationship between MBTI and team cohesion (GCS)

Table: 5.15 below reports the Spearman's correlation coefficients of MBTI and GCS.

Table: 5.15
Spearman's correlations (MBTI and GCS) (N=463)

MBTI	R = GCS
Extraversion	.53** +++
Introversion	-.53
Sensing	-.05
iNtuition	.05* +
Thinking	.13** +
Feeling	-.13
Judging	.20*** +
Perceiving	-.20

*** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$ (two-tailed)

+ $r \leq .29$ (small practical effect size) ++ $r \geq .30 \leq .49$ (medium practical effect size)

+++ $r \geq .50$ (large practical effect size)

Significant positive relationships were observed between some MBTI variables and the GCS variables. Some subscales (extraversion, intuition, thinking and judging) show a significant positive relationship with the GCS sub-variables.

Perception of extraversion revealed a significant positive relationship with:

- Team cohesion ($r = .53$; large practical effect size, $p \leq .01$)

Perception of intuition revealed a significant positive relationship with:

- Team cohesion ($r = .05$; small practical effect size, $p \leq .05$)

Perception of thinking revealed a significant positive relationship with:

- Team cohesion ($r = .13$; small practical effect size, $p \leq .01$)

Perception of judging revealed a significant positive relationship with:

- Team cohesion ($r = .20$; small practical effect size, $p \leq .001$)

5.2.1.4 Relationship between the CSWS and team cohesion (GCS)

Table: 5.16 below reports the Spearman's correlation coefficients of CSWS and GCS.

Table: 5.16
Spearman's correlations (CSWS and GCS) (N=463)

CSWS	R = GCS
Family support	.45** ++
Competition	.20** +
Physical appearance	.08*** +
Religion/love of god	.34* ++
Work competence	.45** ++
Virtue	.40*** ++
Approval from others	.39*** ++

*** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$ (two-tailed)

+ $r \leq .29$ (small practical effect size) ++ $r \geq .30 \leq .49$ (medium practical effect size)

+++ $r \geq .50$ (large practical effect size)

Significant positive relationships were observed between some CSWS variables and the GCS variables. Some subscales (family support, competition, physical appearance, religion/love of God, work competence, virtue and approval from others) show a significant positive relationship with the GCS variables.

Perception of family support revealed a significant positive relationship with:

- Team cohesion ($r = .45$; medium practical effect size, $p \leq .01$)

Perception of competition revealed a significant positive relationship with:

- Team cohesion ($r = .20$; small practical effect size, $p \leq .01$)

Perception of physical appearance revealed a significant positive relationship with:

- Team cohesion ($r = .08$; small practical effect size, $p \leq .001$)

Perception of religion/love of God revealed a significant positive relationship with:

- Team cohesion ($r = .34$; medium practical effect size, $p \leq .05$)

Perception of work competence revealed a significant positive relationship with:

- Team cohesion ($r = .45$; medium practical effect size, $p \leq .01$)

Perception of virtue revealed a significant positive relationship with:

- Team cohesion ($r = .40$; medium practical effect size, $p \leq .001$)

Perception of approval from others revealed a significant positive relationship with:

- Team cohesion ($r = .39$; medium practical effect size, $p \leq .001$)

5.2.1.5 Relationship between T-K CRI and team cohesion (GCS)

Table: 5.17 below reports the Spearman's correlation coefficients of T-K CRI and GCS.

Table: 5.17

Spearman's correlations (T-K CRI and GCS) (N=463)

T-K CRI	R = GCS
Competing	-.15
Accommodating	.13* +
Avoiding	-.37
Compromising	.10** +
Collaborating	.33*** ++

*** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$ (two-tailed)

+ $r \leq .29$ (small practical effect size) ++ $r \geq .30 \leq .49$ (medium practical effect size)

+++ $r \geq .50$ (large practical effect size)

Significant positive relationships were observed between some T-K CRI variables and the GCS variables. Some subscales (accommodating, compromising and collaborating) show a significant positive relationship with the GCS variables.

Perception of work accommodating revealed a significant positive relationship with:

- Team cohesion ($r = .13$; small practical effect size, $p \leq .05$)

Perception of work compromising revealed a significant positive relationship with:

- Team cohesion ($r = .10$; small practical effect size, $p \leq .01$)

Perception of work collaborating revealed a significant positive relationship with:

- Team cohesion ($r = .33$; medium practical effect size, $p \leq .001$)

5.2.1.6 Relationship between socio-biographic variables and GCS

Table: 5.18 below reports the Spearman's correlation coefficients of Socio-biographical variables and GCS.

Table: 5.18

Spearman's correlations (socio-biographical variables and GCS (N=463))

SOCIO-BIOGRAPHICAL VARIABLES	R = GCS
Age	-.24
Gender	.05** +
Race	-.15
Qualification	-.03
Job level	.18* +
Tenure	.34*** ++

*** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$ (two-tailed)

+ $r \leq .29$ (small practical effect size) ++ $r \geq .30 \leq .49$ (medium practical effect size)

+++ $r \geq .50$ (large practical effect size)

Significant positive relationships were observed between some socio-biographical variables and the GCS variables. Some subscales (gender, job level and job tenure) show a significant positive relationship with the GCS variables.

Perception of gender revealed a significant positive relationship with:

- Team cohesion ($r = .05$; small practical effect size, $p \leq .01$)

Perception of job level revealed a significant positive relationship with:

- Team cohesion ($r = .18$; small practical effect size, $p \leq .05$)

Perception of job tenure revealed a significant positive relationship with:

- Team cohesion ($r = .34$; medium practical effect size, $p \leq .001$)

5.3 INFERENCE (MULTIVARIATE) STATISTICS

In the next section the statistical results will be reported and interpreted in terms of inferential (multivariate) statistics

5.3.1 Canonical correlations

The canonical multivariate statistic is a unique model that measures and studies the overall interrelationship among the independent and dependent variables (Hair *et al.*, 2010). The technique develops a number of independent canonical functions that maximise between linear composites (canonical variates) expressed as canonical correlation coefficient (R_c) (Breitung & Pigorsch, 2013) The objective of canonical correlations is to quantify the strength of both independent and dependent variables, and the R_c positive values only range from 0 to 1 (Hancock & Mueller, 2010).

According to Hair *et al.* (2010), the statistical canonical correlation can be delineated into the following six steps:

- Specification of the canonical correlation objectives;
- Development of the analysis plan;
- Assessment of the assumptions underpinning the canonical correlation;
- Estimation of the canonical model and assessment of the overall model fit;
- Interpretation of the canonical variates; and
- Validation of the model.

The computation of the canonical analysis limits the probability of committing Type 1 errors, when the research wrongly accepts the null hypothesis that a relationship exists when there is no relationship. Furthermore, only individual canonical correlations and

squared canonical structure loadings are interpreted because of the variability weights and concerns pertaining to multi-collinearity (Hair *et al.*, 2010). Multi-collinearity occurs when independent variables are highly correlated and do not hold the additional information sought for analysis (Cohen, Cohen, West & Aiken, 2013).

Cohen (1988) and Cohen *et al.* (2003) provided the following interpretation guidelines:

- Small practical effect: $r \leq .30$
- Medium practical effect: $r \geq .30 - \leq .49$
- Large practical effect: $r \geq .50$

In this study, the practical magnitude and significance of the canonical functions were represented by the size of the canonical correlation variates, before deciding on which functions had to be interpreted. In addition, a multivariate test of all the canonical roots was evaluated to determine the significance of discriminant functions, namely, Wilks' Lambda, Hotelling's trace, Pillai's trace and Roy's greatest characteristic root (gcr). The significant levels of $p \leq .05$ and $R_c \leq .30$ were chosen as a cut-off point for rejecting the null hypothesis. The higher the redundancy index, the more practical the result (Hair *et al.*, 2010).

In Table 5.19 (on the next page) the researcher analyses and displays the cross-loadings that the psycho-social variables, namely, work competence, family support, God's love, virtue and extraversion contributed the most in explaining the variance in the team cohesion-related disposition canonical variate.

Table: 5 19 presents a Canonical Correlation Analysis: Overall Model Fit Statistics relating to the independent psycho-social variables (self-worth, personality preferences and conflict resolution styles) and the dependent construct (team cohesion), which consisted of two main sub-scales, namely cohesiveness and engaged. The table below depicts the standardised canonical results for the first canonical function variates. The model adequacy statistically evaluated the goodness-of-fit that measures and determines whether the model should be accepted or rejected (Garson, 2009).

Table: 5.19

Standardised Canonical correlation analysis results for the First Canonical Variate

Variables	Canonical coefficients (weights)	Canonical loading (structure correlation)	Squared correlations	Canonical cross-loadings (Squared multiple correlations)	Average canonical loading squared (percentage of variance explained by their own canonical variate)	Redundancy index (percentage of overall variance of variables explained by the opposite canonical)
Set of dependent variables					.95	.46
Cohesiveness	.32	.96	.91	.44		
Engaged	.70	.99	.98	.47		
Set of independent variables					0.24	0.11
Competing	-.16	-.30	.09	.04		
Accommodating	-.03	.23	.05	.03		
Avoidance	-.11	-.45	.20	.10		
Compromising	-.11	.13	.02	.01		
Work Competence	.54	.75	.56	.27		
Family support	.61	.73	.53	.25		
Competition	.77	.23	.05	.03		
Appearance	.69	-.02	.01	.00		

Variables	Canonical coefficients (weights)	Canonical loading (structure correlation)	Squared correlations	Canonical cross-loadings (Squared multiple correlations)	Average canonical loading squared (percentage of variance explained by their own canonical variate)	Redundancy index (percentage of overall variance of variables explained by the opposite canonical)
Approval	1.2	.64	.28	.13		
God's love	.56	.66	.43	.21		
Virtue	.98	.69	.47	.23		
E	.39	.73	.53	.25		
S	-.02	-.12	.02	.01		
T	.13	.23	.05	.02		
J	-.30	.30	.09	.04		

+ $Rc^2 \leq 0.12$ (small practical effect size)

++ $Rc^2 \geq 0.13 \leq 0.25$ (moderate practical effect size)

+++ $Rc^2 \geq 0.26$ (large practical effect size)

The following overall percentage variance of variables was explained by their own canonical variables:

Overall model fit measures (function 1): Overall $Rc^2 = .93$ (value of overall variance in the psycho-social variables accounted for team cohesiveness and engaged canonical sub-scales).

Wilk lambda (λ) = .01

r^2 type effect size: $1 - \lambda = .99$ (large effect)

Redundancy index (overall variance psycho-social variables explained or predicted cohesiveness and engaged variables); proportion = .95

The overall squared canonical correlation (Rc^2) explains the proportion of variance in the dependent canonical construct variate (cohesiveness and engaged) accounted for by the independent canonical construct variate (psycho-social variables). Table 5.18 shows that the psycho-social construct canonical variate explains 24% ($Rc^2 = .24$; moderate practical effect) of the variance in the team cohesion-related disposition construct canonical variate.

In terms of practical significance, the magnitude of the relationship between the two canonical construct variates is measured by the redundancy index. Ideally, the higher the redundancy, the higher the percentage of variance accounted for by the independent variate in the dependent set of original variables will be, and vice versa.

Table 5.19 shows that the psycho-social canonical construct variate was able to predict only 11% (small practical effect) of the variance in the enhancement of team cohesion. The team cohesion-related disposition canonical construct variate was able to predict 46% (large practical effect) of the variance in the original psycho-social variables. The two canonical variate constructs were thus found to be a good overall predictor of the opposite canonical construct variate.

Overall, it can be deduced from the canonical loading (structure correlations) that the psycho-social variables of work competence (.75), family support (.73), God's love (.66), virtue (.69) and extraversion (.73) contributed the most in explaining the variance in the team cohesion disposition canonical variate. The cohesiveness (.96) and engaged (.99) variables contributed the most in explaining the variance in the psycho-

social canonical variate. The self-worth standardised path results also explained the variance in the team cohesion disposition canonical variate (see Appendix D).

The above-mentioned clearly demonstrates that the null hypothesis is rejected as there is a close correlation between the independent variables (psycho-social variables) and the dependent variable (team cohesion).

Table: 5.20 below depicts the multivariate tests of significance. A multivariate test is computed to evaluate the significance of discriminant functions that included the Wilks' Lambda, Pillai's Trace, Hotelling-Lawley Trace and the Roy's Greatest Root.

Table: 5.20
Multivariate tests of significance

Multivariate Statistics and F Approximations					
S=2 M=6.5 N=463					
Statistic	Value	F Value	Num DF	Den DF	Pr > F
Wilks' Lambda	0.00001	8098.79	34	778	<.0001***
Pillai's Trace	1.13452	30.07	34	780	<.0001***
Hotelling-Lawley Trace	109028.50649	1244580	34	695.57	<.0001***
Roy's Greatest Root	109028.35105	2501239	17	390	<.0001***

NOTE: F Statistic for Roy's Greatest Root is an upper bound.

NOTE: F Statistic for Wilks' Lambda is exact.

Notes: $N = 463$ *** $p \leq 0.001$; ** $p \leq 0.01$; * $p \leq 0.05$

The null hypothesis is rejected because the two sets of independent and dependent variables are not linearly related. The null hypothesis of the four canonical correlations is equal to 0 (zero) at alpha level 0.05. The F statistics for Wilks' Lambda is exact. The significance of the canonical correlation analysis provided the researcher the advantage of not committing a Type I error. This is the likelihood of finding a statistical significant relationship when it does not exist.

The scatter plot in Figure: 5.2 visually depicts the overall relationship between the psycho-social-related disposition variates and the team cohesion disposition canonical variates. The purpose of a scatter plot in data analysis is to reduce large data into a simple compact-based visual representation (Shao, Mahajan, Schreck & Lehmann, 2017). The plot shows a summary regression analysis between the independent and

dependent variates. The linearity assumes there is straight line relationship and the researcher can fit a line between X and Y values along a bivariate scatter plot (Tabachnick & Fidel, 2013). In this study, no problems are observed within the scatter plot.

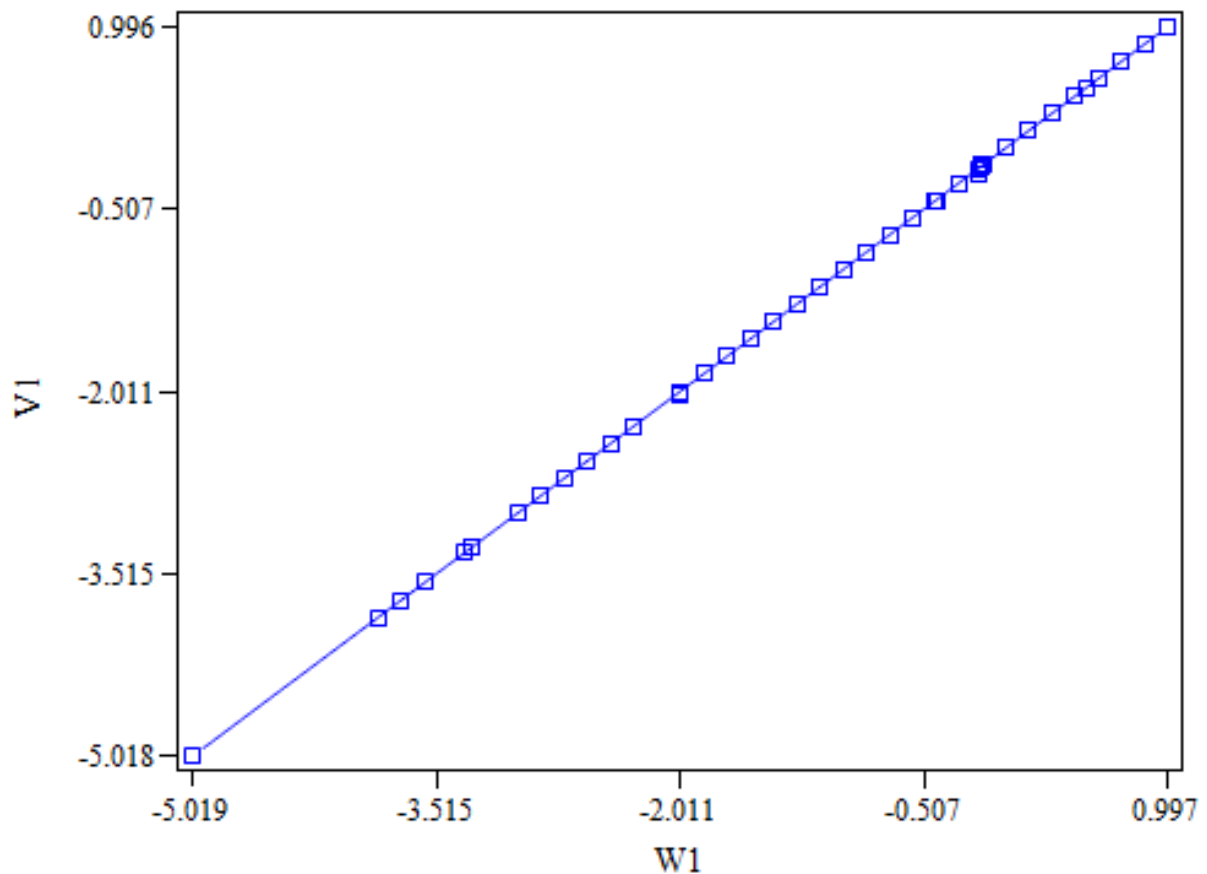


Figure: 5.2
Scatter plot

5.3.2 Standard multiple regression analysis

Table: 5.21 shows the three psycho-social variables that contribute positively in explaining the variance in the team cohesion variable, namely, competition, approval from others and perceiving.

Table: 5.21

Significant results of the Multiple Regression Analyses: CSWS, MBTI AND TK-CRI

Variable	Unstandardised coefficient		Standardised coefficient	T	P	F	R Square	Adjusted R Square	Collinearity	
	B	SE	β	tolerance	significance	F-ratio			Tolerance	VIF
Self-worth (constant)	5.008	.522		9.593		17.857	.406+++	.383 +++		
Family support	.102	.076	.121	1.341	.181				.186	5.384
Competition	.030	.031	.051	.988	.324				.579	1.727
Appearance	-.057	.028	-.098	-2.034	.043				.656	1.524
God's love	-.029	.052	-.037	-.557	.578				.347	2.879
Work competence	-.110	.093	-.125	-1.176	.240				.134	7.469
Virtue	.312	.089	.304	3.500					.201	4.970
Approval from others	.038	.032	.64	1.179	.239				.515 .618	1.942
Personality preference						17.857	.406+++	.383 +++		
Introversion	-.073	.009	-.381	-7.685					.618	1.618
iNtuition	-.027	.020	-.080	-1.339	.181				.429	2.334
Feeling	-.031	.019	-.114	-1.583	.114				.293	3.415
Perceiving	.019	.017	.069	1.128	.260				.402	2.490

Variable	Unstandardised coefficient		Standardised coefficient	T	P	F	R Square	Adjusted R Square	Collinearity	
	B	SE	β	tolerance	significance	F-ratio			Tolerance	VIF
Conflict resolution styles						17.857	.406+++	.383 +++		
Avoidance	-.049	.024	-.099	-2.009	.045				.627	1.594
Accommodating	.031	.022	.66	1.420	.156				.697	1.434
Compromising	-.010	.022	-.020	-.464	.643				.799	1.251
Collaborating	.007	.017	.022	.411	.682				.529	1.889

*** $p \leq 0.001$ ** $p \leq 0.01$ * $p \leq 0.05$

+ $R^2 \leq 0.12$ (small practical effect size)

++ $R^2 \geq 0.13 \leq 0.25$ (moderate practical effect size)

+ ++ $R^2 \geq 0.26$ (large practical effect size)

The standard multiple regressions were conducted to determine the proportion of variance that is explained by the independent psycho-social disposition variables (conceptualised as self-worth, personality preferences and conflict resolution styles) in the scores of the dependent variable, conceptualised as team cohesion.

According to Terre Blanche and Durrheim (2002), the multiple regression analysis is utilised to build a model explaining the scores of the independent variables on the criterion or dependent variable. The multiple regression analysis is one of the multivariate statistical methods used to investigate the collective contributions of the explanatory independent variables to the variance of the explained dependent variables (Cohen *et al.*, 2011; Howell, 2013). The multiple regression analysis allowed the researcher to determine the direction and magnitude of the effect of the independent variables on the dependent variable (Allison, 2014).

In the context of this present study, Hypothesis 2 was to empirically determine whether the psycho-social disposition variables positively and significantly predicted team cohesion. Overall the results indicated self-worth and the personality type of introversion positively and significantly predicted team cohesion. The results of the present study confirm the findings of Silva, Cruz, Gouveia and Capretz (2013) and Abdulshah, Hakaki, Zarei, Mohammadnia and Saberian (2017).

The results as depicted in Table: 5.21 further suggest that the participants' self-worth domains of competition and seeking approval from others and their personality preference of perceiving predicted team cohesion. Crocker *et al.* (2003) found a positive correlation between family support and compassionate goals, demonstrated by the individual's eco-system motivation perspective. Participants with compassionate goals were more likely to have no impressions on others, and they were collaborative, peaceful and happier in a team environment (Crocker *et al.*, 2003).

It is the researcher's assertion that participants with self-image goals are more likely to manifest a zero-sum view about interpersonal relationships motivated by satisfying their selfish interests, instead of working with others in a collaborative manner. This assertion was confirmed by Crocker and Cavello's (2012) findings that compassionate goals among the American population enhanced their interpersonal relationships and team cohesion, while on the contrary, their self-image was found to undermine relationships.

Self-worth and the compassionate goal orientation significantly reduced subjective anxiety, stress or fear among individuals, whilst increasing the pro-social intention to help others (Abelson, Erickson, Mayer, Crocker, Briggs, Lopez-Duran & Liberzon, 2014). Compassionate goals in a team setting lead to members focusing on being constructive and supportive to others. These relationships involve shared bonds, caring, and affection among individuals (Crocker & Canevello, 2015).

5.3.3 Structural equation modelling

Based on the significant relationships indicated between the independent and dependent canonical construct variates, and thus using the results of the canonical correlation analysis as the baseline measurement model, three structural equation models were investigated, to test hypothesis H₃. The theoretically hypothesised model on the relationship between self worth, personality preferences, conflict resolution styles and team cohesion, have a good fit with the empirically manifested structural model. This is depicted in Table 5.22 below.

For the purpose of the current study, the confirmatory factor analysis (CFA) as a component of the structural equation modelling (SEM) was administered to demonstrate the empirical good fit, by comparing the three hypothesised structural equation models. The confirmatory approach, in essence, is based on theory and previous empirical research results. As a component of the SEM process it is intended to validate the measurement model by computing and obtaining estimates of the parameters of the model, and further evaluating the model itself provides a good fit to the data (Garson, 2009).

Furthermore, the CFA measures the model adequacy or goodness-of-fit to determine whether the tested model should be rejected or accepted (Garson, 2009). Based on the significant relationships between the independent variables and the dependent variable, the three confirmatory structural equation models were investigated.

The motivation for this approach was to empirically validate the psycho-social-related variables that emerged from the various analyses of the inter- and overall relationships between self-worth, personality preferences and conflict resolution styles that were related to team cohesion. The structural equation model was preferred because it estimates the multiple and interrelated dependence in a single analysis (Hox & Bechger, 1998).

Table: 5.22 summarises the overall fit statistics of the three models that were tested. The test statistics and goodness-of-fit indices generated by AMOS 18 (Arbuckle, 2012) were examined and produced three models, with the third model showing the best fit.

Table: 5.22
Structural Equation Modelling results: Summary of Fit Statistics

Model	CMIN	Df	CMIN/df	AGFI	CFI	RMSEA	SRMR	ΔCMIN
1	138.30	39	3.5	.87	.94	.09	.07	
2	82.17	14	5.9	.86	.97	.12	.02	60.12
3	22.02	9	2.4	.94	.99	.07	.02	1698.99

Notes: CMIN(χ^2) = chi-square; df: degrees of freedom; CFI: comparative fit index; RMSEA: root-mean-square error of approximation; SRMR: standardised root-mean-square residual; AGFI: adjusted goodness-of-fit index. Chi-square/RMSEA.

The third model (as shown in Table: 5.22) (CFI = .99) indicates a good fit with the model data with a chi-square of 22.02 (9 df); CMIN/df = 2.4; ; RMSEA = .07, SRMR = .02 and AGFI = .94. As can be seen in Figure: 5.3 below, overall the third model provided the best statistical fit. For the results of the models see Appendixes C to G.

The results observed in the canonical correlation analysis were significantly high, namely, cohesiveness (.96) and engaged (.99). The strongest predictors of team cohesion observed in self-worth standardised path results (Appendix D) were family support (.86), appearance (.79), competition (.94), God's love (.95), work competence (.84), virtue (.81) and approval from others (.81). The strongest predictors between ipsative variables observed in the multiple regression and path analysis were extraversion (.73), personality preference and accommodating (.66) conflict resolution style. The self-worth standardised standardised path results also explained the variance in the team cohesion disposition canonical variate path (See Figure: 5.3).

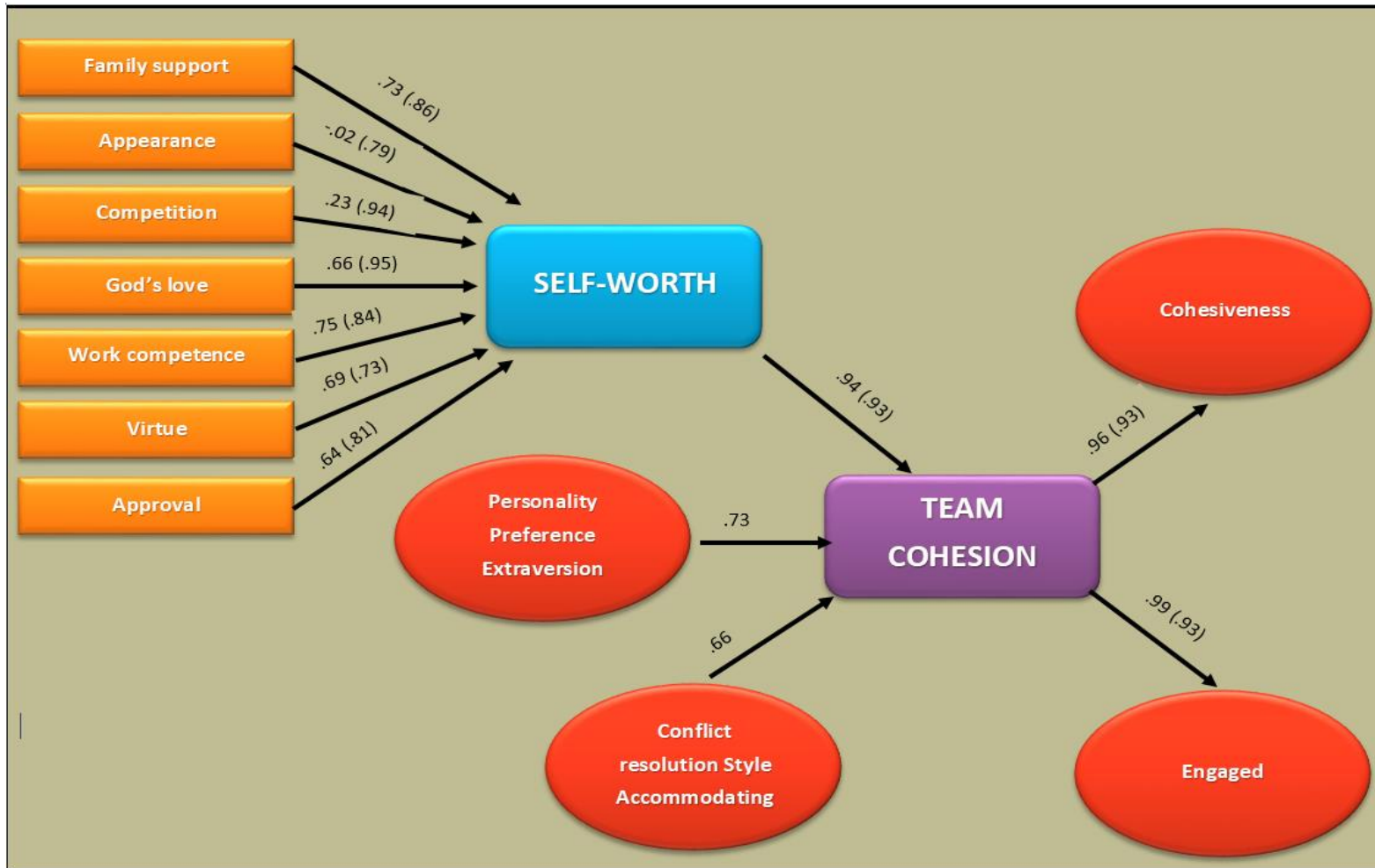


Figure: 5.3
Standardised confirmatory and path coefficient estimates

Notes: Figure 5.3 refers to canonical loading (Table: 5.19). Secondly, the figure refers to multiple regression analyses for approval and accommodating (Table: 5.21). Thirdly, the figure refers to the self-worth adjusted goodness of fit index (Appendix C). Fourthly, the figure refers to self-worth standardised path results in brackets (Appendix D). Finally, the figure refers to the overall value .93, the canonical redundancy results between self-worth and the canonical variates in brackets (Appendix E)

The three final structural models linking the psycho-social construct variables to the team cohesion-related disposition construct variables are cohesiveness and engaged.

Note: The above results provide for Research Hypothesis H3. Based on the overall statistical relationship between the psychological variables (conceptualised as self-worth and personality preferences), the sociological variable (conceptualised as conflict resolution styles) and team cohesion, and to empirically assess the statistical fit between the elements of the empirically manifested structural model and the theoretically hypothesised model.

5.3.4 Hierarchical moderated regression analysis

Based on the canonical correlations and best fit multiple regression model shown in Figure: 5.3, multiple regression analyses were performed in order to determine whether the socio-demographic variables (measured as race, gender, age, educational level, job level and tenure) acted as moderators in the relationship between the psycho-social variables, conceptualised as self-worth (family support sub-scale) and personality preferences (extraversion personality type) and team cohesion.

Table: 5.23 below reports the psycho-social constructs, race and team cohesion.

Table: 5.23

Moderated Regression Analyses: Examining of the psycho-social disposition constructs and Race on team cohesion construct (N = 463)

Model	Unstandardised Coefficients		Standardised Coefficient	t	p	R square	Adjusted R square	f ²
	B	Std Error	Beta					
1.(Constant)	6.030	.048		126.326	.000			.00
cE	.097	.009	.52	10.790	.000	.270	.268	
cFam supp	.416	.040	.50	10.316	.000	.250	.247	
2.(Constant)	6.376	.099		64.430	.000			.00
cE	.101	.009	.54	11.424	.000	.305	.301	
cFam supp	.411	.041	.49	9.951	.000	.250	.246	
Race	-.446	.113	-.18	-3.967	.000			
3.(Constant)	6.333	.100		63.313	.000			.02
cE	.065	.018	.35	3.569	.000	.317	.310	
cFam Supp	.302	.146	.36	2.066	.040	.252	.245	
Race	-.407	.113	-.17	-3.599	.000			
Race_ cE cFam support	.048	.021	.22	2.302	.022			

***p ≤ .001

**p ≤ .01

*p ≤ .05

Cohen (1992) f² effect size small = .02 medium = .15 large = .35

Race as a moderator

Table: 5.23 reports the final step of the results of the moderated regression analysis, with race as a moderator of the relationship between family support, extraversion and team cohesion.

Table 5.23 depicted, in terms of the main effects, that both Extraversion ($\beta = .35$, $p \leq .001$) and Family support ($\beta = .36$, $p \leq .040$) acted as significant predictors of team cohesion, while race did not act as a predictor of team cohesion.

In terms of the interaction effect, race ($\beta = .22$, $p \leq .001$) significantly moderated the relationship between Extraversion, Family support and Team cohesion. Overall, the aggregated interaction effects were small in Cohen $f^2 = .02$ practical effect size.

Table: 5.24 below reports the psycho-social constructs, age and team cohesion.

Table: 5.24

Moderated Regression Analyses: Examining of the psycho-social disposition constructs and Age on team cohesion construct (N = 463)

Model	Unstandardised Coefficients		Standardised Coefficient	t	p	R square	Adjusted R square	f ²
	B	Std Error	Beta					
1.(Constant)	6.029	.047		127.390	.000			
cE	.096	.009	.51	10.744	.000	.266	.266	.00
cFam supp	.433	.040	.52	10.881	.000	.267	.265	
2.(Constant)	6.150	.056		110.586	.000			
cE	.091	.009	.48	10.284	.000	.300	.295	.00
cFam supp	.412	.043	.49	9.641	.000	.271	.266	
Age	-.400	.102	-.19	-1.327	.185			
3.(Constant)	6.158	.055		111.982	.000			
cE	.076	.010	.40	7.595	.000	.319	.312	.03
cFam supp	.536	.061	.64	8.722	.000	.288	.281	
Age	-.353	.102	-.16	-3.463	.097			
Age_ cE cFam support	.061	.020	.16	2.996	.003			

***p ≤ .001

**p ≤ .01

*p ≤ .05 Cohen (1992) f² effect size small = .02 medium = .15 large = .35

Age as a moderator

Table: 5.24 reports the final step of the results of the moderated regression analysis, with age as a moderator of the relationship between family support, extraversion and team cohesion.

Table: 5.24 depicted, in terms of the main effects, that both Extraversion ($\beta = 40$, $p \leq .001$) and Family support ($\beta = 64$, $p \leq .001$) acted as significant predictors of team cohesion. Furthermore, age also did act as a predictor of team cohesion ($\beta = 16$, $p \leq .001$).

In terms of the interaction effect, age ($\beta = 16$, $p \leq .001$) significantly moderated the relationship between Extraversion, Family support and Team cohesion. Overall, the aggregated interaction effects were small in Cohen $f^2 = .03$ practical effect size. This finding confirmed the study conducted by Mary and Stephen (2014) that there was a significant correlation between age and team cohesion.

Table: 5.25 below reports the psycho-social constructs, qualifications and team cohesion.

Table: 5.25

Moderated Regression Analyses: Examining of the psycho-social disposition construct and Qualifications on team cohesion construct (N = 463)

Model	Unstandardised Coefficients		Standardised Coefficient	t	p	R square	Adjusted R square	f ²
	B	Std Error	Beta					
1.(Constant)	6.031	.047		127.891	.000			.00
cE	.096	.009	.52	10.801	.000	.267	.264	
cFam supp	.418	.040	.50	10.500	.000	.252	.250	
2.(Constant)	5.834	.256		22.815	.000			
cE	.096	.009	.54	10.790	.000	.288	.263	
cFam supp	.137	.265	.03	.516	.606	.253	.248	
Qualifications	.204	.260	.04	.785	.433			
3.(Constant)	5.851	.100		63.313	.000			.01
cE	.206	.045	1.1	3.569	.000	.282	.275	
cFam supp	.095	.267	.02	.355	.723	.257	.250	
Qualifications	.187	.258	.03	.723	.470			
Qual_cE cFam support	-.114	.046	-.60	-2.471	.014			

***p ≤ .001

**p ≤ .01

*p ≤ .05Cohen (1992) f² effect size small = .02 medium = .15 large = .35

Qualifications as a moderator

Table: 5.25 reports the final step of the results of the moderated regression analysis, with qualifications as a moderator of the relationship between family support, extraversion and team cohesion.

Table: 5.25 depicted, in terms of the main effects, that Extraversion ($\beta = 1.1$, $p \leq .001$) did not act as significant predictor of team cohesion and Family support ($\beta = .03$, $p \leq .001$) acted as significant predictors of team cohesion.

In terms of the interaction effect, qualifications ($\beta = -.60$, $p \leq .001$) significantly moderated the relationship between Extraversion, Family support and Team cohesion. Overall, the aggregated interaction effects were small in Cohen $f^2 = .01$ practical effect size.

Table: 5.26 below reports the psycho-social constructs, tenure and team cohesion.

Table: 5.26

Moderated Regression Analyses: Examining of the psycho-social disposition construct and Tenure on team cohesion construct (N = 463)

Model	Unstandardised Coefficients		Standardised Coefficient	t	p	R square	Adjusted R square	f ²
	B	Std Error	Beta					
1.(Constant)	6.031	.047		127.891	.000			.00
cE	.096	.009	.52	10.790	.000	.267	.264	
cFam supp	.418	.040	.50	10.500	.000	.252	.250	
2.(Constant)	5.753	.077		74.796	.000			.00
cE	.086	.009	.47	9.722	.000	.310	.306	
cFam supp	.363	.043	.44	8.394	.000	.272	.268	
Tenure	.440	.098	.22	4.503	.000			
3.(Constant)	5.799	.079		73.500	.000			.02
cE	.114	.015	.61	7.735	.000	.322	.316	
cFam supp	.289	.053	.35	5.422	.000	.284	.278	
Tenure	.409	.098	.20	4.170	.000			
Tenu_ cE cFam support	-.043	.018	-.181	-2.338	.020			

***p ≤ .001

**p ≤ .01

*p ≤ .05 Cohen (1992) f² effect size small = .02 medium = .15 large = .35

Tenure as a moderator

Table: 5.26 reports the final step of the results of the moderated regression analysis, with tenure as a moderator of the relationship between family support, extraversion and team cohesion.

Table: 5.26 depicted, in terms of the main effects, that both Extraversion ($\beta = .61$, $p \leq .001$) and Family support ($\beta = .35$, $p \leq .001$) acted as significant predictors of team cohesion, while tenure also did act as a predictor of team cohesion.

In terms of the interaction effect, tenure ($\beta = -.022$, $p \leq .001$) did significantly moderate the relationship between Extraversion, Family support and Team cohesion. Overall, the aggregated interaction effects were small in Cohen $f^2 = .02$ practical effect size.

5.3.5 Tests for mean differences

The Mann-Whitney U Test and Kruskal Wallis non-parametric data were administered to test hypothesis 5. Both these tests allowed the researcher to rank data for each condition to detect the differences between the two rank totals (Tredoux & Durrheim, 2013). The difference between the two tests is that the Mann-Whitney U Test tests the differences between the mean ranks, whereas the Kruskal Wallis Test examines the differences between more ranks totals (Pallant, 2010).

The Mann-Whitney U Test and Kruskal Wallis tests were conducted to identify significant differences between the psycho-social-related disposition variables, namely, gender, race, age, job levels, educational level and job tenure.

5.3.5.1 Reporting of significant differences in mean scores for the gender group and psycho-social-related disposition variables

a) Gender group and self-worth variable

Table: 5.27 below indicates the results of the Mann-Whitney U Test conducted in order to determine the significant differences between gender and family support, competition, appearance, religion/God's love, work competence, virtue and approval from others. For competition as a moderating variable, a significant difference of ($p = .001$) was statistically observed at the significant level of .01. The mean rank of competition amongst the female group was higher when compared to the male group as shown in Table: 5.27.

For virtue as a moderating variable, a significant difference of ($p = .043$) was statistically observed at the significant level of .01. Considering the mean rank of virtue amongst the male group was higher when compared with the female group. With the approval from others as a moderating variable, a significant difference of ($p = .042$) was statistically observed at the significant level of .01. The mean rank of approval from others in the female group was higher than in the male group. No significant differences could be detected between family support, appearance, religion and work competence.

Table: 5.27 below shows the Mann-Whitney U Test conducted to determine gender differences.

Table: 5.27
Mann-Whitney U Test conducted to determine gender differences

Moderating variables	Gender group	N	Mean Rank	Sum of Rank	Mann-Whitney U	Z	P
Family support	Males = 0	241	237.20	57165.50	28004.500	-.133	.894
	Females = 1	234	238.82	55884.50			
Competition	Males = 0	241	218.96	52770.00	23609.000	-3.184	.001
	Females = 1	235	258.54	60756.00			
Appearance	Males = 0	241	163.60	39427.50	10266.500	-12.071	.000
	Females = 1	235	315.31	74098.50			
Religion/ God's love	Males = 0	241	237.82	57315.00	28154.000	-.121	.904
	Females = 1	235	239.20	56211.00			
Work competence	Males = 0	241	237.24	57174.00	28013.000	-.126	.899
	Females = 1	234	239.79	55876.00			
Virtue	Males = 0	241	250.27	60316.00	25239.000	-2.025	.043
	Females = 1	234	225.36	52734.00			
Approval from others	Males = 0	241	225.47	54338.00	25177.000	-2.034	.042
	Females = 1	234	250.91	58712.00			

b) Gender group and personality preferences

Table: 5.28 (on the next page) indicates the results of the Mann-Whitney U Test conducted in order to determine the significant differences between gender and extraversion, introversion, sensing, intuition, thinking, feeling, judging and perceiving.

For judging and perceiving as a moderating variable, a significant difference of ($p = 0.013$) was statistically observed at the significant level of .01. The mean rank of judging amongst the male group was higher when compared to the female group. As for perceiving in the female group, the mean rank was higher than in the male group.

Table: 5.28 below examines the test for significant mean differences of the gender group in terms of personality preference variables

Table: 5.28

Test for significant mean differences of the gender group in terms of personality preference variables

Moderating variables	Gender group	N	Mean Rank	Sum of Rank	Mann-Whitney U	Z	P
Extraversion	Males = 0	235	234.75	55166.00	26614.000	-.286	.775
	Females = 1	230	231.21	53179.00			
Introversion	Males = 0	235	231.25	54344.00	26614.000	-.286	.775
	Females = 1	230	234.79	54001.00			
Sensing	Males = 0	234	191.31	44766.00	17271.000	-6.530	.000
	Females = 1	227	271.92	61725.00			
Intuition	Males = 0	234	270.69	63342.00	17271.000	-6.530	.000
	Females = 1	227	190.08	43149.00			
Thinking	Males = 0	231	279.70	64611.50	14852.500	-8.129	.000
	Females = 1	228	179.64	40958.50			
Feeling	Males = 0	231	180.30	41648.50	14852.500	-8.129	.000
	Females = 1	228	280.36	63921.50			
Judging	Males = 0	232	244.57	56741.00	22719.000	-2.482	.013
	Females = 1	226	214.03	48370.00			
Perceiving	Males = 0	232	214.43	49747.00	22719.000	-2.482	.013
	Females = 1	226	244.97	55364.00			

c) Gender group and conflict resolution styles

Table: 5.29 indicates the results of the Mann-Whitney U Test conducted in order to determine the significant differences between gender and competing, accommodating, avoiding, compromising and collaborating. For avoiding as a moderating variable, a significant difference of ($p = .011$) was statistically observed at the significant level of .01. The mean rank of avoiding amongst the female group was higher when compared to the male group. For the compromising as a moderating variable, a significant difference of ($p = .52$) was statistically observed at the significant level of .01. The mean rank of compromising amongst the male group was higher when compared to the female group. As for collaborating as a moderating variable, a significant difference of ($p = .58$) was statistically observed at the significant level of .01. The mean rank of collaborating amongst the male group was higher when compared to the female group. No significant differences could be detected between gender, competing and accommodating.

Table: 5.29 below examines the test for significant mean differences of the gender group in terms of conflict resolution style variables.

Table: 5.29

Test for significant mean differences of the gender group in terms of conflict resolution variables

Moderating variables	Gender group	N	Mean Rank	Sum of Rank	Mann-Whitney U	Z	P
Competing	Males = 0	234	227.27	53181.00	25686.000	-.337	.706
	Females = 1	224	231.83	51930.00			
Accommodating	Males = 0	232	217.75	50517.00	23489.000	-1.238	.216
	Females = 1	217	232.76	50508.00			
Avoiding	Males = 0	228	209.46	47758.00	21652.000	-2.530	.011
	Females = 1	220	240.08	52818.00			
Compromising	Males = 0	233	239.55	55816.00	23171.000	-1.945	.052
	Females = 1	222	215.87	47924.00			
Collaborating	Males = 0	229	237.37	54358.00	22815.000	-1.895	.058
	Females = 1	222	214.27	47568.00			

5.3.5.2 Reporting of significant differences in mean scores for race groups and psycho-social-related disposition variables

a) Race group and self-worth variables

Table: 5.30 indicates the Kruskal-Wallis test conducted on self-worth variables, in order to determine whether family support, competition, appearance, religion, work competency, virtue and approval from others of the participants demonstrated a significant difference in relation to race at the significance level of .05.

The results revealed an $\chi^2 = 11.277$; $p = .010$ between family support and race; $\chi^2 = 51.741$, $p = .000$ between competition and race; $\chi^2 = 15.049$, $p = .002$ between appearance and race; $\chi^2 = 16.083$, $p = .001$ between religion and race; $\chi^2 = 8.636$, $p = .035$ between work competence and race; $\chi^2 = 22.017$, $p = .000$ between virtue and race; $\chi^2 = 17.488$, $p = .001$ between approval from others and race.

Considering the mean rank analysis conducted, the results showed that the White group scored higher on family support, competition, religion, work competence and virtue, whereas the Coloureds group scored higher on appearance and approval from others.

Table: 5.30 below examines the Kruskal-Wallis test conducted on self-worth variables.

Table: 5.30
Kruskal-Wallis test conducted on self-worth variables

Moderating variables	Race groups	N	Mean Rank	Chi-Square (χ^2)	df	P
Family support	African	238	219.53	11.277	3	.010
	Coloured	68	257.74			
	Indian	63	221.06			
	White	100	265.13			
Competition	African	239	194.87	51.741	3	.000
	Coloured	68	284.97			
	Indian	63	240.46			
	White	100	295.84			
Appearance	African	239	216.13	15.049	3	.002
	Coloured	68	286.40			
	Indian	63	246.62			
	White	100	240.19			
Religion/ God's love	African	239	240.41	16.083	3	.001
	Coloured	68	248.74			
	Indian	63	178.99			
	White	100	250.36			
Work competence	African	238	221.68	8.636	3	.035
	Coloured	68	258.68			
	Indian	63	221.40			
	White	100	259.16			
Virtue	African	238	226.16	22.017	3	.000
	Coloured	68	249.92			
	Indian	63	204.32			
	White	100	265.22			
Approval from others	African	238	217.10	17.488	3	.001
	Coloured	68	293.82			
	Indian	63	243.51			
	White	100	232.25			

b) Race in terms of personality preferences variables

Table: 5.31 indicates the Kruskal-Wallis test conducted on personality preference variables, in order to determine whether extraversion, introversion, sensing, intuition, thinking, feeling, judging and perceiving of the participants demonstrated a significant difference in relation to race, at the significance level of .05.

The results revealed an $x^2 = 33.606$; $p = .000$ between both extraversion and introversion and race; $x^2 = 25.032$, $p = .000$ between both sensing and intuition and race, $x^2 = 37.036$, $p = .000$ between both thinking and feeling and race; $x^2 = 68.545$, $p = .000$ between both judging and perceiving and race.

Considering the mean rank analysis conducted, the results showed that the Coloured group scored higher on extraversion, sensing, feeling and perceiving, the Indian group scored higher on introversion, intuition and thinking, whereas the White group scored higher on judging.

Table: 5.31 below examines the test for significant mean differences of the gender group in terms of personality preference variables.

Table: 5.31
Kruskal-Wallis test conducted on personality preference variables

Moderating variables	Race groups	N	Mean Rank	Chi-Square (χ^2)	df	P
Extraversion	African	232	240.36	33.606	3	.000
	Coloured	67	293.24			
	Indian	62	176.94			
	White	98	195.81			
Introversion	African	232	219.64	33.606	3	.000
	Coloured	67	166.76			
	Indian	62	283.06			
	White	98	264.19			
Sensing	African	229	232.80	25.032	3	.000
	Coloured	66	289.97			
	Indian	62	192.14			
	White	98	197.74			
Intuition	African	229	223.20	25.032	3	.000
	Coloured	66	166.03			
	Indian	62	263.86			
	White	98	258.26			
Thinking	African	228	212.09	37.036	3	.000
	Coloured	66	167.15			
	Indian	62	275.41			
	White	97	271.84			
Feeling	African	228	241.91	37.036	3	.000
	Coloured	66	286.85			
	Indian	62	178.59			
	White	97	182.16			
Judging	African	226	194.25	68.545	3	.000
	Coloured	66	190.78			
	Indian	63	234.33			
	White	96	319.50			
Perceiving	African	226	257.75	68.545	3	.000
	Coloured	66	261.22			
	Indian	63	217.67			
	White	96	132.50			

c) Results of Kruskal-Wallis Test for Race in terms of conflict resolution styles variables

Table: 5.32 indicates the Kruskal-Wallis test conducted on conflict resolution variables, in order to determine whether competing, accommodating, avoiding, compromising and collaborating of the participants demonstrated a significant difference in relation to race, at the significance level of .05. χ^2

The results revealed an $\chi^2 = 19.415$; $p = .000$ between competing and race; $\chi^2 = 15.186$, $p = .002$ between accommodating and race, $\chi^2 = 35.815$, $p = .000$ between avoiding and race; $\chi^2 = .540$, $p = .910$ between compromising and race; $\chi^2 = 7.284$, $p = .063$ between collaborating and race.

Considering the mean rank analysis conducted, the results showed that the Indian group scored higher on competing, and the Coloured group scored higher on accommodating and collaborating, whereas both the African and White groups scored higher on compromising.

Table: 5.32 below examines the test for significant mean differences of conflict resolution style variables.

Table: 5.32
Kruskal-Wallis test conducted on conflict resolution variables

Moderating variables	Race groups	N	Mean Rank	Chi-Square (χ^2)	df	P
Competing	African	223	216.26	19.415	3	.000
	Coloured	68	183.69			
	Indian	62	263.15			
	White	99	256.02			
Accommodating	African	217	220.74	15.186	3	.002
	Coloured	64	275.39			
	Indian	62	201.82			
	White	100	203.08			
Avoiding	African	218	254.10	35.815	3	.000
	Coloured	65	206.58			
	Indian	62	217.50			
	White	98	163.67			
Compromising	African	225	227.78	.540	3	.910
	Coloured	66	224.15			

Moderating variables	Race groups	N	Mean Rank	Chi-Square (χ^2)	df	P
	Indian	61	214.75			
	White	98	227.88			
Collaborating	African	217	221.47	7.284	3	.063
	Coloured	68	250.26			
	Indian	62	190.96			
	White	99	229.94			

5.3.5.3 Reporting of differences in mean scores for job levels and psycho-social related dispositions

a) Job level groups and self-worth variables

Table: 5.33 indicates the Kruskal-Wallis test conducted on the self-worth variables, in order to determine whether family support, competition, appearance, religion, work competence, virtue and approval from others of the participants demonstrated a significant difference in relation to job level, at the significance level of .05.

The results revealed an $\chi^2 = 22.078$; $p = .001$ between family support and job level; $\chi^2 = 17.062$, $p = .004$ between competition and job level; $\chi^2 = 8.385$, $p = .136$ between appearance and job level; $\chi^2 = .17.310$, $p = .004$ between religion and job level; $\chi^2 = 23.505$, $p = .000$ between work competence and job level; $\chi^2 = 16.331$, $p = .006$ between virtue and job level; $\chi^2 = 14.325$, $p = .004$ between work appearance and job level.

Considering the mean rank analysis conducted, the results showed that the unskilled group scored higher on family support and approval, and the junior management group scored higher on competition and appearance, whereas the specialist group scored higher on religion, work competence and virtue.

Table: 5.33 below examines the Kruskal-Wallis test conducted on job level variables.

Table: 5.33
Kruskal-Wallis test conducted on Job level variables

Moderating variables	Job level groups	N	Mean Rank	Chi-Square (χ^2)	df	P
Family support	Top management	5	132.50	22.078	5	.001
	Senior management	40	178.71			
	Specialists	291	257.95			
	Junior management	98	215.82			
	Semi-skilled	37	213.35			
	Unskilled	4	282.63			
Competition	Top management	5	147.70	17.062	5	.004
	Senior management	40	169.45			
	Specialists	291	243.51			
	Junior management	98	263.45			
	Semi-skilled	38	224.26			
	Unskilled	4	202.38			
Appearance	Top management	5	240.20	8.385	5	.136
	Senior management	40	188.16			
	Specialists	291	240.85			
	Junior management	98	255.80			
	Semi-skilled	38	223.84			
	Unskilled	4	159.13			
Religion/ God's love	Top management	5	172.80	17.310	5	.004
	Senior management	40	179.24			
	Specialists	291	256.16			
	Junior management	98	228.95			
	Semi-skilled	38	214.13			
	Unskilled	4	239.75			
Work competence	Top management	5	144.20	23.505	5	.000
	Senior management	40	182.16			
	Specialists	291	258.44			
	Junior management	98	218.06			
	Semi-skilled	37	195.14			
	Unskilled	4	311.88			
Virtue	Top management	5	167.70	16.331	5	.006
	Senior management	40	187.42			
	Specialists	291	257.14			
	Junior management	98	214.11			

Moderating variables	Job level groups	N	Mean Rank	Chi-Square (χ^2)	df	P
	Semi-skilled	37	213.53			
	Unskilled	4	251.00			
Approval from others	Top management	5	141.80	14.325	5	.014
	Senior management	40	169.19			
	Specialists	291	247.98			
	Junior management	98	240.64			
	Semi-skilled	37	238.47			
	Unskilled	4	251.13			

b) Job level group and personality preference variables

Table: 5.34 indicates the Kruskal-Wallis test conducted on personality preference variables, in order to determine whether extraversion, introversion, sensing, iNtuition, thinking, feeling, judging and perceiving of the participants demonstrated a significant difference in relation to job level, at the significance level of .05.

The results revealed an $\chi^2 = 9.147$; $p = .103$ between both extraversion and introversion and job level; $\chi^2 = 36.374$, $p = .103$ between both sensing and iNtuition and job level; $\chi^2 = 51.143$, $p = .000$ between both thinking and feeling and job level; $\chi^2 = 55.559$, $p = .000$ between both judging and perceiving and job level.

Considering the mean rank analysis conducted, the results showed that the specialist group scored higher on extraversion, the senior management group scored higher on introversion, thinking and judgment, while the unskilled group scored higher on sensing, feeling and perceiving, and top management scored higher on iNtuition.

Table: 5.34 below examines Kruskal-Wallis test conducted for job level on personality preference variables.

Table: 5.34
Kruskal-Wallis test conducted for Job level on personality preference variables

Moderating variables	Job level groups	N	Mean Rank	Chi-Square (χ^2)	df	P
Extraversion	Top management	5	113.50	9.147	5	.103
	Senior management	39	192.01			
	Specialists	286	242.03			
	Junior management	94	230.74			
	Semi-skilled	37	230.35			
	Unskilled	4	214.13			
Introversion	Top management	5	352.50	9.147	5	.103
	Senior management	39	273.99			
	Specialists	286	223.97			
	Junior management	94	235.26			
	Semi-skilled	37	235.65			
	Unskilled	4	251.88			
Sensing	Top management	5	147.80	36.374	5	.000
	Senior management	39	179.65			
	Specialists	284	214.42			
	Junior management	94	274.29			
	Semi-skilled	35	304.87			
	Unskilled	4	349.38			
Intuition	Top management	3	314.20	36.374	5	.000
	Senior management	39	282.35			
	Specialists	284	247.58			
	Junior management	94	187.71			
	Semi-skilled	35	157.13			
	Unskilled	4	112.63			
Thinking	Top management	4	220.50	51.143	5	.000
	Senior management	38	282.47			
	Specialists	283	254.05			
	Junior management	95	175.79			
	Semi-skilled	35	141.71			
	Unskilled	4	99.13			
Feeling	Top management	4	239.50	51.143	5	.000
	Senior management	38	177.53			
	Specialists	283	205.95			

Moderating variables	Job level groups	N	Mean Rank	Chi-Square (χ^2)	df	P
	Junior management	95	284.21			
	Semi-skilled	35	318.29			
	Unskilled	4	360.88			
Judging	Top management	5	183.00	55.559	5	.000
	Senior management	37	265.69			
	Specialists	281	256.68			
	Junior management	94	179.02			
	Semi-skilled	36	128.01			
	Unskilled	4	85.88			
Perceiving	Top management	5	275.00	55.559	5	.000
	Senior management	37	192.31			
	Specialists	281	201.32			
	Junior management	94	278.98			
	Semi-skilled	36	329.99			
	Unskilled	4	372.31			

c) Job level group and conflict resolution styles variables

Table: 5.35 below indicates the Kruskal-Wallis test conducted on conflict resolution variables, in order to determine whether competing, accommodating, avoiding, compromising and collaborating of the participants demonstrated a significant difference in relation to job levels at the significance level of .05.

The results revealed an $\chi^2 = 12.053$; $p = .034$ between competing and job level; $\chi^2 = 30.704$, $p = .000$ between accommodating and job level, $\chi^2 = 20.572$, $p = .001$ between avoiding and job level; $\chi^2 = 7.110$, $p = .213$ between compromising and job level; $\chi^2 = 3.251$, $p = .661$ between collaborating and job level.

Considering the mean rank analysis conducted, the results had shown that the senior management group scored higher on competing, and compromising, the unskilled group scored higher on accommodating, the top management group scored higher on avoiding, whereas the specialist group scored higher on collaborating.

Table:5.35 below examines the Kruskal-Wallis test conducted for job levels on conflict resolution variables.

Table: 5.35
Kruskal-Wallis test conducted for Job levels on conflict resolution variables

Moderating variables	Job level groups	N	Mean Rank	Chi-Square (χ^2)	df	P
Competing	Top management	5	256.80	12.053	5	.034
	Senior management	38	265.51			
	Specialists	281	235.47			
	Junior management	95	219.69			
	Semi-skilled	35	171.93			
	Unskilled	4	170.00			
Accommodating	Top management	5	228.30	30.704	5	.000
	Senior management	35	167.06			
	Specialists	278	211.64			
	Junior management	92	252.43			
	Semi-skilled	35	302.60			
	Unskilled	4	346.38			
Avoiding	Top management	3	346.67	20.573	5	.001
	Senior management	35	246.94			
	Specialists	276	205.59			
	Junior management	94	241.97			
	Semi-skilled	36	286.57			
	Unskilled	4	272.25			
Compromising	Top management	5	132.60	7.110	5	.213
	Senior management	35	250.36			
	Specialists	282	235.15			
	Junior management	93	209.61			
	Semi-skilled	36	214.78			
	Unskilled	4	194.00			
Collaborating	Top management	3	160.33	3.251	5	.661
	Senior management	39	200.49			
	Specialists	276	232.60			
	Junior management	94	222.68			
	Semi-skilled	35	219.01			
	Unskilled	4	207.63			

5.3.5.4 Reporting of significant differences in mean scores for age and psycho-social related variables

a) Age groups and self-worth variables

Table: 5.36 indicates the Kruskal-Wallis test conducted on the self-worth variables, in order to determine whether family support, competition, appearance, religion, work competency, virtue and approval from others of the participants demonstrated a significant difference in relation to age, at the significance level of .05.

The results revealed an $\chi^2 = 49.978$; $p = .000$ between family support and age; $\chi^2 = 9.948$, $p = .019$ between competition and age; $\chi^2 = 46.135$, $p = .000$ between religion and age; $\chi^2 = 57.402$, $p = .000$ between work competence and age; $\chi^2 = 47.885$, $p = .000$ between virtue and age; $\chi^2 = 16.090$, $p = .001$ between approval from others and age.

Considering the mean rank analysis conducted, the results showed that the 56 years old and above group scored higher on family support, competition, religion, work competence and virtue, the 26 to 40 years old group scored higher on appearance, whereas the 41 to 55 years old group scored higher on approval from others.

Table: 5.36 below examines the Kruskal-Wallis test conducted for age and self-worth variables.

Table: 5.36
Kruskal-Wallis test conducted on Age and self-worth variables

Moderating variables	Age groups	N	Mean Rank	Chi-Square (χ^2)	df	P
Family support	≥ 25	17	154.29	49.978	3	.000
	26 - 40	149	183.68			
	41 - 55	292	266.31			
	56+	17	311.50			
Competition	≥ 25	17	195.65	9.948	3	.019
	26 - 40	149	214.06			
	41 - 55	293	252.26			
	56+	17	259.26			
Appearance	≥ 25	17	241.15	3.402	3	.334
	26 - 40	149	249.15			
	41 - 55	293	235.91			
	56+	17	187.09			

Moderating variables	Age groups	N	Mean Rank	Chi-Square (χ^2)	df	P
Religion/ God's love	≥ 25	17	159.59	46.135	3	.000
	26 - 40	149	190.52			
	41 - 55	293	263.82			
	56+	17	301.53			
Work competence	≥ 25	17	122.65	57.402	3	.000
	26 - 40	149	183.11			
	41 - 55	292	269.10			
	56+	17	300.29			
Virtue	≥ 25	17	123.74	47.885	3	.000
	26 - 40	149	184.93			
	41 - 55	292	266.37			
	56+	17	330.15			
Approval from others	≥ 25	17	172.32	16.090	3	.001
	26 - 40	149	209.71			
	41 - 55	293	256.90			
	56+	17	227.03			

b) Age group and of personality preference variables

Table: 5.37 below indicates the Kruskal-Wallis test conducted on personality preference variables, in order to determine whether extraversion, introversion, sensing, intuition, thinking, feeling, judging and perceiving of the participants demonstrated a significant difference in relation to age, at the significance level of .05.

The results revealed an $\chi^2 = 30.659$; $p = .000$ between both extraversion and introversion; $\chi^2 = 33.934$, $p = .000$ between both thinking and feeling and age; $\chi^2 = 66.616$, $p = .000$ between both judging and perceiving and age.

Considering the mean rank analysis conducted, the results showed that the 56 years old and above group scored higher on extraversion, thinking and judging, the 25 years old and younger had scored higher on introversion, sensing, feeling and perceiving, whereas the 41 to 55 years old group scored higher on intuition.

Table: 5.37 below examines the Kruskal-Wallis test conducted on Age and personality preference variables.

Table: 5.37
Kruskal-Wallis test conducted on Age and personality preference variables

Moderating variables	Age groups	N	Mean Rank	Chi-Square (χ^2)	df	P
Extraversion	≥ 25	16	158.88	30.659	3	.000
	26 - 40	146	190.15			
	41 - 55	286	256.53			
	56+	17	274.94			
Introversion	≥ 25	16	307.13	30.659	3	.000
	26 - 40	146	275.85			
	41 - 55	286	209.47			
	56+	17	191.06			
Sensing	≥ 25	16	284.91	6.810	3	.078
	26 - 40	147	246.28			
	41 - 55	286	219.43			
	56+	17	239.35			
Intuition	≥ 25	16	177.09	6.810	3	.078
	26 - 40	147	215.72			
	41 - 55	286	242.57			
	56+	17	222.65			
Thinking	≥ 25	15	135.40	33.934	3	.000
	26 - 40	144	187.60			
	41 - 55	283	253.81			
	56+	17	276.29			
Feeling	≥ 25	15	324.60	33.934	3	.000
	26 - 40	144	272.40			
	41 - 55	283	206.19			
	56+	17	183.71			
Judging	≥ 25	16	128.53	66.616	3	.000
	26 - 40	145	167.16			
	41 - 55	279	261.31			
	56+	17	320.74			
Perceiving	≥ 25	16	329.47	66.616	3	.000
	26 - 40	145	290.84			
	41 - 55	279	196.69			
	56+	17	137.26			

c) Age group and conflict resolution styles variables

Table: 5.38 indicates the Kruskal-Wallis test conducted on conflict resolution variables, in order to determine whether competing, accommodating, avoiding, compromising and collaborating of the participants demonstrated a significant difference in relation to age at the significance level of .05.

The results revealed $x^2 = 25.942$, $p = .000$ between avoiding and age; $x^2 = 22.851$, $p = .000$ between compromising and age; $x^2 = 9.434$, $p = .024$ between collaborating and age.

Considering the mean rank analysis conducted, the results showed that the 26 to 40 years old group scored higher on competing and accommodating, and the 25 years old and younger group scored higher on avoiding, and the 41 to 55 years scored higher on compromising, whereas the 56 years old and above group scored higher on collaborating.

Table: 5.38 below examines the Kruskal-Wallis test conducted for Age and conflict resolution variables.

Table: 5.38
Kruskal-Wallis test conducted on Age and conflict resolution variables

Moderating variables	Age groups	N	Mean Rank	Chi-Square (x^2)	df	P
Competing	≥ 25	17	240.12	30.659	3	.312
	26 - 40	141	245.16			
	41 - 55	282	220.55			
	56+	17	224.00			
Accommodating	≥ 25	13	193.50	30.659	3	.537
	26 - 40	139	233.69			
	41 - 55	279	222.88			
	56+	17	200.35			
Avoiding	≥ 25	16	311.78	6.810	3	.000
	26 - 40	140	256.93			
	41 - 55	276	208.16			
	56+	17	153.82			
Compromising	≥ 25	14	239.00	6.810	3	.000
	26 - 40	145	186.43			
	41 - 55	280	249.92			

Moderating variables	Age groups	N	Mean Rank	Chi-Square (χ^2)	df	P
	56+	17	225.97			
Collaborating	≥ 25	15	186.33	33.934	3	.024
	26 - 40	143	205.90			
	41 - 55	276	235.11			
	56+	17	282.24			

5.3.5.5 Reporting on significant differences in mean scores for education groups and psycho-social-related dispositions

a) Education groups and self-worth variables

Table: 5.39 below indicates the Kruskal-Wallis test conducted on the self-worth variables, in order to determine whether family support, competition, appearance, religion, work competence, virtue and approval from others of the participants demonstrated a significant difference in relation to educational level, at the significance level of .05.

The results revealed an $\chi^2 = 33.563$; $p = .000$ between family support and education level; $\chi^2 = 9.683$, $p = .046$ between appearance and education level; $\chi^2 = 31.001$, $p = .000$ between religion and education level; $\chi^2 = 26.277$, $p = .000$ between work competence and education level; $\chi^2 = 57.924$, $p = .000$ between virtue and education level.

Considering the mean rank analysis conducted, the results showed that the post-graduate level group scored higher on family support, competition, religion and work competence, the degree-level group scored higher on appearance, the matric-level group scored higher on virtue, whereas the certificate-level group scored higher on approval from others.

Table: 5.39 below examines the Kruskal-Wallis test conducted on education groups and self-worth variables.

Table: 5.39
Kruskal-Wallis test conducted on Education groups and self-worth variables

Moderating variables	Edu groups	N	Mean Rank	Chi-Square (χ^2)	df	P
Family support	≥ Matric	21	245.07	33.563	4	.000
	Certificate	22	200.57			
	Diploma	82	170.70			
	Degree	109	237.30			
	Post graduate	244	266.64			
Competition	≥ Matric	22	215.73	4.390	4	.356
	Certificate	22	249.70			
	Diploma	82	217.59			
	Degree	109	237.31			
	Post graduate	244	250.05			
Appearance	≥ Matric	22	218.52	9.683	4	.046
	Certificate	22	243.43			
	Diploma	82	253.76			
	Degree	109	269.47			
	Post graduate	244	223.84			
Religion/ God's love	≥ Matric	22	252.93	31.001	4	.000
	Certificate	22	173.14			
	Diploma	82	185.72			
	Degree	109	238.59			
	Post graduate	244	263.73			
Work competence	≥ Matric	21	224.83	26.277	4	.000
	Certificate	22	214.39			
	Diploma	82	180.84			
	Degree	109	232.59			
	Post graduate	244	265.83			
Virtue	≥ Matric	21	254.81	57.924	4	.000
	Certificate	22	176.14			
	Diploma	82	173.67			
	Degree	109	234.50			
	Post graduate	244	268.25			
Approval from others	≥ Matric	21	254.60	4.685	4	.321
	Certificate	22	259.43			
	Diploma	82	218.77			

Moderating variables	Edu groups	N	Mean Rank	Chi-Square (χ^2)	df	P
	Degree	109	226.89			
	Post graduate	244	249.00			

b) Education group and personality preference variables

Table: 5.40 below indicates the Kruskal-Wallis test conducted on personality preference variables, in order to determine whether extraversion, introversion, sensing, intuition, thinking, feeling, judging and perceiving of the participants demonstrated a significant difference in relation to educational level, at the significance level of .05.

The results revealed an $\chi^2 = 12.087$; $p = .017$ between both extraversion and introversion and education level; $\chi^2 = 69.855$, $p = .000$ between both sensing and intuition and education level; $\chi^2 = 104.588$, $p = .000$ between both thinking and feeling and education level; $\chi^2 = 110.833$, $p = .000$ between both judging and perceiving and education level.

Considering the mean rank analysis conducted, the results showed that the degree-level group scored higher on extraversion, the certificate-level group scored higher on introversion, the matric-level group level scored higher on sensing, feeling and perceiving, whereas the post-graduate level group scored higher on intuition, thinking and judgment.

Table: 5.40 below examines the Kruskal-Wallis test conducted on education groups and personality preference variables.

Table: 5.40
 Kruskal-Wallis test conducted on Education groups and personality preference variables

Moderating variables	Edu groups	N	Mean Rank	Chi-Square (χ^2)	df	P
Extraversion	≤ Matric	20	259.53	12.087	4	.017
	Certificate	22	192.32			
	Diploma	81	235.23			
	Degree	107	268.23			
	Post graduate	238	220.89			
Introversion	≤ Matric	20	209.48	12.087	4	.017
	Certificate	22	276.68			
	Diploma	81	233.77			
	Degree	107	200.79			
	Post graduate	238	248.11			
Sensing	≤ Matric	19	339.13	69.855	4	.000
	Certificate	22	292.18			
	Diploma	81	280.46			
	Degree	106	274.36			
	Post graduate	236	183.09			
Intuition	≤ Matric	19	125.87	69.855	4	.000
	Certificate	22	172.82			
	Diploma	81	184.54			
	Degree	106	190.64			
	Post graduate	236	281.91			
Thinking	≤ Matric	19	112.71	104.588	4	.000
	Certificate	21	199.60			
	Diploma	79	157.75			
	Degree	107	180.95			
	Post graduate	236	291.51			
Feeling	≤ Matric	19	350.29	104.588	4	.000
	Certificate	21	263.40			
	Diploma	79	305.25			
	Degree	107	282.05			
	Post graduate	236	171.49			
Judging	≤ Matric	19	118.37	110.833	4	.000
	Certificate	22	138.86			
	Diploma	81	146.56			

Moderating variables	Edu groups	N	Mean Rank	Chi-Square (χ^2)	df	P
	Degree	106	201.04			
	Post graduate	232	291.14			
Perceiving	≤ Matric	19	342.63	110.833	4	.000
	Certificate	22	322.14			
	Diploma	81	314.44			
	Degree	106	259.96			
	Post graduate	232	169.86			

c) Education group and conflict resolution styles variables

Table: 5.41 below indicates the Kruskal-Wallis test conducted on conflict resolution variables, in order to determine whether competing, accommodating, avoiding, compromising and collaborating of the participants demonstrated a significant difference in relation to educational levels, at the significance level of .05.

The results revealed an $\chi^2 = 13.060$; $p = .011$ between competing and education level; $\chi^2 = 31.767$, $p = .000$ between accommodating and education level; $\chi^2 = 17.574$, $p = .001$ between avoiding and education level.

Considering the mean rank analysis conducted, the results showed that the diploma-level group scored higher on competing, the matric-level group scored higher on accommodating and collaborating, the certificate-level group scored higher on avoiding, whereas the degree-level group scored higher on compromising.

Table: 5.41 below examines the Kruskal-Wallis test conducted on education groups and conflict resolution variables.

Table: 5.41

Kruskal-Wallis test conducted on Education groups and conflict resolution variables

Moderating variables	Edu groups	N	Mean Rank	Chi-Square (χ^2)	df	P
Competing	≥ Matric	20	144.03	13.060	4	.011
	Certificate	22	248.55			
	Diploma	78	251.46			
	Degree	104	215.61			
	Post graduate	236	235.78			
Accommodating	≥ Matric	19	364.95	31.767	4	.000
	Certificate	21	225.93			
	Diploma	74	232.46			
	Degree	105	245.91			
	Post graduate	232	203.56			
Avoiding	≥ Matric	19	263.45	17.574	4	.001
	Certificate	22	277.93			
	Diploma	77	257.00			
	Degree	103	236.17			
	Post graduate	230	203.01			
Compromising	≥ Matric	19	232.05	9.250	4	.055
	Certificate	22	207.45			
	Diploma	76	201.95			
	Degree	105	215.34			
	Post graduate	236	246.52			
Collaborating	≥ Matric	19	242.79	7.158	4	.128
	Certificate	21	179.93			
	Diploma	75	202.00			
	Degree	105	233.43			
	Post graduate	234	236.04			

5.3.5.6 Reporting of significant differences in means scores for Job tenure groups and psycho-social-related dispositions

a) Job tenure group and of self-worth variables

Table: 5.42 below indicates the Kruskal-Wallis test conducted on self-worth variables, in order to determine whether family support, competition, appearance, religion, work competence, virtue and approval from others of the participants demonstrated a significant difference in relation to job tenure, at the significance level of .05.

The results revealed an $\chi^2 = 127.376$; $p = .000$ between family support and job tenure; $\chi^2 = 37.984$, $p = .000$ between competition and job tenure; $\chi^2 = 21.080$, $p = .000$ between appearance and job tenure; $\chi^2 = 116.666$, $p = .000$ between religion and job tenure; $\chi^2 = 134.196$, $p = .000$ between work competence and job tenure; $\chi^2 = 79.198$, $p = .000$ between virtue and job tenure; $\chi^2 = 56.814$, $p = .000$ between work appearance and job tenure.

Considering the mean rank analysis conducted, the results showed that the above 21 years old group scored higher on family support, competition, religion, work competence, virtue and approval from others, whereas the 16 to 20 years old group scored higher on appearance.

Table: 5.42 below examines the Kruskal-Wallis test conducted for tenure and self-worth variables.

Table: 5.42
Kruskal-Wallis test conducted on Job tenure and Self-worth variables

Moderating variables	Tenure groups	N	Mean Rank	Chi-Square (χ^2)	df	P
Family support	≤ 5 years	62	136.04	127.376	4	.000
	6-10 years	83	148.96			
	11-15 years	68	239.89			
	16-20 years	80	248.91			
	≥ 21 years	185	310.58			
Competition	≤ 5 years	62	201.63	37.984	4	.000
	6-10 years	83	177.90			
	11-15 years	68	228.35			
	16-20 years	81	256.62			
	≥ 21 years	185	277.73			
Appearance	≤ 5 years	62	218.65	21.080	4	.000
	6-10 years	83	234.96			
	11-15 years	68	249.49			
	16-20 years	81	299.73			
	≥ 21 years	185	219.77			
Religion/ God's love	≤ 5 years	62	165.60	116.666	4	.000
	6-10 years	83	151.80			
	11-15 years	68	224.60			
	16-20 years	81	250.26			
	≥ 21 years	185	305.67			
Work competence	≤ 5 years	62	130.15	134.196	4	.000
	6-10 years	83	146.35			
	11-15 years	68	241.56			
	16-20 years	80	253.68			
	≥ 21 years	185	311.05			
Virtue	≤ 5 years	62	135.70	79.198	4	.000
	6-10 years	83	152.01			
	11-15 years	68	230.24			
	16-20 years	80	245.66			
	≥ 21 years	185	314.28			
Approval from others	≤ 5 years	62	159.75	56.814	4	.000
	6-10 years	83	187.87			
	11-15 years	68	220.38			
	16-20 years	80	269.89			
	≥ 21 years	185	283.28			

b) Job tenure group and of personality preference variables

Table: 5.43 below indicates the Kruskal-Wallis test conducted on personality preference variables, in order to determine whether extraversion, introversion, sensing, intuition, thinking, feeling, judging and perceiving of the participants demonstrated a significant difference in relation to job tenure, at the significance level of .05.

The results revealed an $\chi^2 = 69.062$; $p = .017$ between both extraversion and introversion and job tenure; $\chi^2 = 39.911$, $p = .000$ between both sensing and intuition and job tenure; $\chi^2 = 94.864$, $p = .000$ between both thinking and feeling and job tenure; $\chi^2 = 128.512$, $p = .000$ between both judging and perceiving and job tenure.

Considering the mean rank analysis conducted, the results showed that the 16 to 20 years job tenure group scored higher on extraversion, the 5 years and below job tenure group scored higher on introversion, sensing, feeling and perceiving, whereas the 21 years and above job tenure level group level scored higher on intuition, thinking and judging.

Table: 5.43 below examines the Kruskal-Wallis test conducted for job tenure and personality variables.

Table: 5.43
Kruskal-Wallis test conducted on Job tenure and personality variables

Moderating variables	Tenure groups	N	Mean Rank	Chi-Square (χ^2)	df	P
Extraversion	≤ 5 years	59	148.97	69.062	4	.017
	6-10 years	81	173.26			
	11-15 years	67	227.66			
	16-20 years	78	302.11			
	≥ 21 years	183	262.87			
Introversion	≤ 5 years	59	320.03	69.062	4	.017
	6-10 years	81	295.74			
	11-15 years	67	241.34			
	16-20 years	78	166.89			
	≥ 21 years	183	206.13			
Sensing	≤ 5 years	59	281.88	39.911	4	.000
	6-10 years	81	246.21			
	11-15 years	66	247.93			

Moderating variables	Tenure groups	N	Mean Rank	Chi-Square (χ^2)	df	P
	16-20 years	77	276.03			
	≥ 21 years	181	186.12			
Intuition	≤ 5 years	59	183.12	39.911	4	.000
	6-10 years	81	218.79			
	11-15 years	66	217.07			
	16-20 years	77	188.97			
	≥ 21 years	181	278.88			
Thinking	≤ 5 years	60	151.82	94.864	4	.000
	6-10 years	77	195.10			
	11-15 years	67	196.46			
	16-20 years	78	189.54			
	≥ 21 years	180	304.86			
Feeling	≤ 5 years	60	311.18	94.864	4	.000
	6-10 years	77	267.90			
	11-15 years	67	266.54			
	16-20 years	78	273.46			
	≥ 21 years	180	158.14			
Judging	≤ 5 years	59	126.35	128.512	4	.000
	6-10 years	80	148.41			
	11-15 years	64	226.17			
	16-20 years	75	218.66			
	≥ 21 years	182	306.75			
Perceiving	≤ 5 years	59	334.65	128.512	4	.000
	6-10 years	80	312.59			
	11-15 years	64	234.83			
	16-20 years	75	242.34			
	≥ 21 years	182	154.25			

c) Job tenure group and conflict resolution styles variables

Table: 5.44 below indicates the Kruskal-Wallis test conducted on conflict resolution style variables, in order to determine whether competing, accommodating, avoiding, compromising and collaborating of the participants demonstrated a significant difference in relation to job tenure, at the significance level of .05.

The results revealed an $x^2 = 13.945$; $p = .007$ between competing and job tenure; $x^2 = 71.542$, $p = .000$ between avoiding and job tenure; $x^2 = 25.448$, $p = .000$ between compromising and job tenure; $x^2 = 39.874$, $p = .000$ between collaborating and job tenure.

Considering the mean rank analysis conducted, the results showed that the 6 to 10-year job tenure group scored higher on competing and avoiding, the 11 to 15-year job tenure group scored higher on accommodating, whereas the 21-years and above group scored higher on compromising and collaborating.

Table: 5.44 below examines the Kruskal-Wallis test conducted for job levels on conflict resolution variables.

Table: 5.44
Kruskal-Wallis test conducted on Job tenure and conflict resolution variables

Moderating variables	Tenure groups	N	Mean Rank	Chi-Square (x^2)	df	P
Competing	≤ 5 years	57	249.91	13.945	4	.007
	6-10 years	76	267.00			
	11-15 years	67	210.93			
	16-20 years	77	244.39			
	≥ 21 years	183	210.61			
Accommodating	≤ 5 years	53	209.92	3.082	4	.544
	6-10 years	75	233.09			
	11-15 years	65	247.14			
	16-20 years	76	219.90			
	≥ 21 years	182	222.76			
Avoiding	≤ 5 years	55	281.99	71.542	4	.000
	6-10 years	76	290.57			
	11-15 years	64	255.11			
	16-20 years	76	237.22			
	≥ 21 years	180	166.54			
Compromising	≤ 5 years	56	198.32	25.448	4	.000
	6-10 years	79	178.09			
	11-15 years	64	226.30			
	16-20 years	78	236.05			
	≥ 21 years	181	259.90			

Moderating variables	Tenure groups	N	Mean Rank	Chi-Square (χ^2)	df	P
Collaborating	≤ 5 years	55	192.71	39.874	4	.000
	6-10 years	77	170.94			
	11-15 years	65	232.30			
	16-20 years	75	204.66			
	≥ 21 years	182	269.64			

5.4 INTEGRATION AND DISCUSSION OF RESEARCH RESULTS

This section will present the research results of the current study. This will entail a discussion and consideration of the integration and examination of the empirical research aims, The findings related to literature review will be integrated with the findings from the empirical findings, in relation to socio-biographical profile for the sample, descriptive statistics, correlations, multiple regression, structural equation modelling, hierarchical moderated regression and the test for significant mean differences.

5.4.1 Descriptive statistics: Interpretation of results (means)

The socio-biographical profile of the sample showed that the main characteristics to be considered were age, gender, race, level of education, job level and job tenure. The sample predominantly consisted of permanently employed Blacks.

5.4.2 Empirical Research aim 1: Interpretation of the canonical correlation analysis results

Table: 5.21 is of relevance to this section.

Research aim 1 was to empirically explore the nature and the inter-relationships between the independent psycho-social variables (self-worth, personality preferences and conflict resolution styles) and the dependent variable team cohesion

The team cohesion as a dependent variable comprised two sub-scales (cohesiveness and engaged).

Overall, the results suggest that the psycho-social related construct, namely, conflict resolution styles (accommodating, avoidance and compromising), self-worth (work competence, family support, competition, appearance, God's love, virtue and approval

from others) and the personality type ESTJ (Extraversion, Sensing, Thinking and Judging) significantly contribute towards the enhancement of team cohesion.

Potgieter (2012) found that employees with a thinking personality type produced intellectual ideas and had a greater perception and feeling of self-worth. Furthermore, Potgieter (2012) found that extraverted individuals demonstrated good interpersonal skills and were able to deal with others' feelings more appropriately, and were positive about the quality of their relationships with others. In another study, the retention of employees was positively linked to the development of their sense of self-worth (Tladinyane, 2012).

5.4.3 Empirical Research aim 2: Interpretation of the multiple regression results

Tables: 5.23 to 5.26 are of relevance to this section.

Research aim 2 was to assess whether the psychological variables (conceptualised as self-worth and personality preferences) and sociological variable (conceptualised as conflict resolution styles), positively and significantly predict team cohesion (while controlling the socio-demographic variables).

Overall, the results indicate that race, age, qualifications and tenure predict and moderate the self-worth family support domain and the extraverted personality type positively predicts the participants' team cohesion.

The results further suggest that race, age, qualifications and tenure will invariably play a role in the employees' emotional attachment to the team setting, which will eventually influence their intention to stay in their organisation. It is interesting to note that the relationship between family support, extraversion and team cohesion is stronger for older participants (41-55 years) than for younger participants (25 years and below). The results confirm the study conducted by Sarkar and Ray (2017) who found a positive correlation between employees who were 35 years old and above and team cohesion.

5.4.4 Empirical Research aim 3: Interpretation of the structural equation modelling results

Table: 5.22 and Figure: 5.3 are of relevance to this section.

Research aim 3 was to investigate the overall statistical relationship between the psychological variables (conceptualised as self-worth and personality preferences), the sociological variable (conceptualised as conflict resolution styles) and team cohesion, and to empirically assess the statistical fit between the elements of the empirically manifested structural model and the theoretically model.

It appears from the results that the enhancement of team cohesion underlies the participants' inherent psychological and motivational need for belonging. This need is demonstrated by the meeting of their compassionate goals within an eco-system or team environment measured by the self-worth construct variables (family support, religion, competition, appearance, work competence, virtues and approval from others) to empirically assess the statistical fit between the elements of the empirically hypothesised model.

According to Crocker *et al.* (2003), the contingencies of self-worth variables were based on the theoretical foundation that all human interpersonal relations are lasting, positive and significant. All human beings aspire to establish quality, close and caring relationships. These relations are governed by two fundamental goals, namely, self-image (ego-system perspective and self-focused) and compassionate goals (eco-system perspective and team-focused) as depicted in the integrated table below:

Table: 5.45 presents the integrated theoretical foundation of Crocker *et al.*'s (2003) self-image goals governed by the ego-system perspective, and compassionate goals governed by the eco-system perspective linked to self-worth variables. The table provides an integration of the various constructs summarised by the researcher.

Table: 5.45:
Integrated ego-system and eco-system perspectives

EGO-SYSTEM PERSPECTIVE	ECO-SYSTEM PERSPECTIVE
<p>SELF-IMAGE GOALS</p> <ul style="list-style-type: none"> ▪ Impressing others. Get others to notice your positive qualities ▪ Personal manipulative strategy that “they will give me what I want”. ▪ Avoid showing weaknesses to others ▪ Undermine the need and sense of belonging 	<p>COMPASSIONATE GOALS</p> <ul style="list-style-type: none"> ▪ Have no impressions on others ▪ Collaborative, peaceful, happier “They give all to the team”. ▪ Avoid doing anything that would be harmful to others ▪ Create the need and sense of belonging
<p>MOTIVATIONAL ORIENTATION/ FRAME OF MIND</p> <ul style="list-style-type: none"> ▪ Get others to notice their positive qualities e.g. “I am intelligent”. ▪ Avoid showing weaknesses ▪ Take from others ▪ Feel conflicted ▪ Uneasy emotions ▪ Control orientated ▪ Manipulative ▪ Self-focused ▪ Do not support others ▪ Less responsive ▪ “What do you think about me?” ▪ ZERO-SUM view of relationship 	<p>MOTIVATIONAL ORIENTATION/ FRAME OF MIND</p> <ul style="list-style-type: none"> ▪ Supportive to others e.g. sacrifice everything to others ▪ Avoid doing anything harmful to others ▪ Give to others ▪ Feel un-conflicted ▪ Constructive and supportive ▪ Enables others ▪ Non-manipulative ▪ Team-focused ▪ Connected to others ▪ More responsive to others’ needs ▪ Do not care about others impressions ▪ NON-ZERO-SUM view of relationship

Source: Researcher’s own compilation

In agreement with Crocker *et al.* (2003), it appears that the self-worth constructs, as reflected in the participants’ desire of meeting their self-image and compassionate goals, positively enhanced team cohesion (as highlighted by the findings of the current study).

The results confirm that the self-worth constructs manifest in the participants’ two fundamental goals, namely, self-image and compassion goals that need to be considered in the fostering and enhancement of team cohesion.

Employees who possess high compassionate goals in work teams are more likely to contribute towards enhancing team cohesion. The employees’ self-worth self-regulatory capacities, among the seven contingencies of self-worth domains, are deemed critical to the enhancement of team cohesion.

The employees with strong compassionate goals within the eco-system perspective are committed to their relationships with team colleagues in establishing long-term team cohesion, when compared to employees with strong self-image goals within the ego-system perspective.

Overall, the results show that self-regulatory capacities along the seven self-worth domains, and participants' that have compassionate goals enhance team cohesion.

5.4.5 Empirical research aim 4: Interpretation of the hierarchical moderated regression analysis

Research aim 4 was to empirically assess whether socio-biographical variables (age, gender, race, qualifications, job level and job tenure) significantly moderate the relationship between the psycho-social variables conceptualised as self-worth, personality preferences and conflict resolution styles and team cohesion.

Age as moderator

The results in Table: 5.24 showed that age moderated self-worth, extraversion and team cohesion. These results are consistent with the study conducted by Mary and Stephen (2014) that there was a significant relationship amongst different age groups and team cohesion. The team members' cohesion increased amongst older individuals.

The majority of the participants are between 41 and 55 years old. From the results it is clear and interesting to note that the relationship between self-worth, extraversion and team cohesion is stronger for older participants when compared to younger participants (25 years and younger). The results confirm the findings by Sarkar and Ray (2017) that the level of team cohesiveness among employees with more than five years' working experience and above 35 years' in age was higher than that of younger employees below 34 years of age with less than 5 years' working experience.

It is the researcher's assertion that age seems to significantly moderate the relationship between self-worth, extraversion, conflict resolutions styles (compromising, accommodating and collaborating) and team cohesion. Older team members invariably leads to individuals being emotionally attached to the team, which will eventually influence their intention to stay in their organisation.

Gender as moderator

In terms of gender, the results show that gender does not significantly moderate self-worth, personality preferences, conflict resolution styles and team cohesion. The study conducted by Sarkar and Ray (2017) showed inconsistent results, with the findings showing that the male participants' level of team cohesion was significantly higher than that of their female counterparts.

Race as moderator

The results in Table: 5.23 showed that race significantly moderates self-worth, extraversion and team cohesion. These results are consistent with the study conducted by Sarkar and Ray (2017) that there was a significant positive relationship between race and team cohesion. They found strong team cohesion among the black Indian race group of West Bengal in India, which was characterised by attributes such as cooperation, problem-solving abilities, collaboration and effective team performance.

Level of education as moderator

Table: 5.25 showed that there was a close association between qualifications psycho-social variables. This is in line with the complex and sophisticated financial and insurance products and services rendered by the financial institution. The findings, indicate a significantly higher level of team cohesion among the professional/specialist participants. These findings is consistent with the research study by Huang (2009) that team cohesion among professionals was a predictor of superior performance and team cohesion. Furthermore Jung, Nam and Lee (2016) found that the level of team cohesion among professional employees was significant. This was confirmed by the finding of Mäkikangas, Bakker and Schaufeli (2017) that 98% of employees with academic degrees have a significantly high level of team cohesion.

Job level as moderator

The results revealed that job level does not significantly moderate self-worth, personality preferences, conflict resolution styles and team cohesion. The results are inconsistent with the study conducted by Jung *et al.* (2016) who found that the professional specialists' level of team cohesion was stronger among this level of employees in the organisation when compared to other job levels.

Job tenure as moderator

In terms of job tenure as moderator in Table: 5.26, the research results revealed that job tenure does significantly moderate the relationship between self-worth, extraversion and team cohesion. However, the study conducted by Sarkar and Ray (2017) found that the level of team cohesion was higher among employees who had five years' and above work experience than employees with four years and below.

5.4.6 Empirical research aim 5: Interpretation of the tests for significant mean differences results

Research aim 5 was to empirically investigate whether significant mean differences exist between the subgroup of socio-biographical variables (age, gender, race, qualifications, job level and job tenure) that acted as significant moderators between psycho-social variables, conceptualised as self-worth, personality preferences, conflict resolution styles and team cohesion, as manifested in the sample of respondents.

Race

Table: 5.32 is of relevance to the race mean differences.

The results showed that the Indian group scored higher on competing, and the Coloured group scored higher on accommodating and collaborating, whereas both the African and White groups scored higher on compromising. It is interesting to note that both the African and White groups scored higher on the compromising resolution style, given the past history of racial discrimination and Apartheid policies before the dawn of democracy in 1994. The result is in line with the study by Vandeyar and Mohale (2016) who found that race in South Africa can be used to break the racial discrimination created by the Apartheid ideology, and to foster harmonious interpersonal relations, promote human equality, appreciating differences and strive for social justice.

Gender

Table: 5.29 is of relevance to the gender mean differences.

The results showed that the male and female participants differed significantly with regard to the collaborating conflict resolution style. It is interesting that the results confirm the study conducted by Gbadamosi, Baghestan and Al-Mabrouk (2014) who also found significant differences between the males' and females' collaborating styles.

Furthermore, the study shows that males and females do not differ significantly with regard to the competing and accommodating conflict resolution styles. However, in the study conducted by Gbadamosi *et al.* (2014) the results showed great significant differences, where the male group was found to use the accommodating, avoiding and compromising conflict resolution styles more than the female group.

Age

Table: 5.39 is of relevance to the age mean differences.

The results show that the group aged 26 to 40 years score higher on competing and accommodating, the group aged 25 years and younger score higher on avoiding, and the group aged 41 to 55 years score higher on compromising, while the group aged 56 years and above score higher on collaborating. Gbadamosi *et al.* (2014) found that employees who were 35 years and below significantly used the accommodating and compromising conflict resolution styles, whereas employees who were 36 years and above significantly used the avoidance style. No significant differences were found among other age groups in using the competing and collaborating conflict resolution styles.

It is interesting to report that in the study conducted by Waithaka, Moore-Austin and Gitimu (2015) no significant statistical differences were found in the age and gender of participants in all the five conflict resolution styles. Hussain's (2015) findings concurred with Waithaka *et al.* (2015) and found no significant differences between males and females in the subscale of the Thomas-Kilmann conflict mode instrument pertaining to the competing, collaborating, compromising, avoiding and accommodating conflict resolution styles.

Tenure

Table: 5.44 is of relevance to the tenure mean differences.

The results show that the mean rank of employees who have a job tenure of 6 to 10 years score higher on competing and avoiding, the group with a job tenure of 11 to 15 years score higher on accommodating, whereas the group who have a job tenure of 21 years and above score higher on compromising and collaborating.

It is interesting to note that the group with a job tenure of 5 years and below score low in all the conflict resolution styles. These results are in line with the findings by Leksell, Garduff, Nilsson and Lepp (2015) who found no significant differences between the

less than 2 years' tenure group and conflict resolution styles. However, Leksell *et al.* (2015) found significant correlation between the more than 2 years' tenure group who possess superior conflict management competence when compared to employees with shorter work experience.

5.4.7 Summary: Empirically manifested team cohesion model

Figure: 5.3 is of reference to this section.

Overall, the results provide supportive evidence that psycho-social variables enhance team cohesion. Bradley, Anderson, Baur and Klotz (2015) confirmed that there is inherent interpersonal conflict within workplace teams, and this interpersonal conflict is beneficial to team effectiveness and cohesiveness. Team cohesion improves social relations among team members. However, for team cohesion to happen, team members must handle conflict constructively and be willing to participate in the conflict resolution process (Levi, 2015).

The collaborating, accommodating and compromising conflict resolution styles promote team cohesion and organisational commitment (Wanyonyi, Kimani & Amuhaya, 2015). Another study by Iglesias and Vallejo (2012) found that the participants commonly used the compromising, competing, avoiding and accommodating conflict styles to resolve interpersonal conflict in the workplace. The collaborating conflict resolution style is vital for effective nursing care and the development of a supportive work environment that requires shared feeling of togetherness based on trust and reciprocity (Ylitörmänen, Kvist & Turunen, 2015).

Sahu (2015) confirmed the study conducted by Iglesias and Vallejo (2012) that the collaborating conflict resolution style was used by nurses in a health care environment, which was characterised by the nurses having a high concern for themselves and others, in order to achieve a win-win outcome. Their working behaviour was correlated to higher team cohesion. Jones (2016) concurred that nurses minimised interpersonal conflict in the workplace and operated in collaborative multi-professional teams to achieve the best patient outcomes.

Knee and Reis (2016) and Crocker and Canevello (2016) found that compassionate goals positively predict growth goals and enhanced relationships. The eco-system motivational perspective incorporating compassionate goals is characterised by the promotion of caring and connection to others (Crocker & Canevello, 2017; Crocker,

Canevello & Brown, 2017). On the contrary, the ego-system promotes individual self-interest, egoistic behaviours and self-centredness (Crocker & Canevello, 2017).

It is the view of the researcher that eco-system human behaviour can be linked to the accommodating conflict resolution style. The individuals concurrently use their concerns and their concern for others to resolve interpersonal issues, and that will invariably lead to team cohesiveness and engaged, and will result in a win-win situation (Thomas-Kilmann, 2007).

Personality contributed significantly towards establishing and enhancing interpersonal relationships among team members (Aeron & Pathak &, 2017). Aeron and Pathak (2017) also found that interpersonal conflict is a pervasive element in work teams that can affect organisational effectiveness. Furthermore, team cohesion in diversified teams improves trust and the spirit of working together (Joubert, 2012).

5.4.8 Decision regarding the research hypotheses

Overall the results provided evidence for the alternative research hypothesis.

Table: 5.45 summarises the decisions regarding the research hypotheses.

Table: 5.45
Summary of the decisions on the research hypotheses

Hypotheses		Supportive evidence provided
H01	There is no empirical inter-relationship between the independent psycho-social variables (self-worth, personality preferences and conflict resolution styles) and the dependent variable team cohesion.	No
Ha1	There are empirical inter-relationships between the independent psycho-social variables (self-worth, personality preferences and conflict resolution styles) and the dependent variable team cohesion.	Yes
H02	The psychological variables (conceptualised as self-worth and personality preferences) and sociological variable (conceptualised as conflict resolution styles) do not positively and significantly predict team cohesion.	No
Ha2	The psychological variables (conceptualised as self-worth and personality preferences) and sociological variable (conceptualised as conflict resolution styles) do positively and significantly predict team cohesion.	Yes

Hypotheses		Supportive evidence provided
H03	Based on the overall statistical relationship between the psychological variables (conceptualised as self-worth and personality preferences), sociological variable (conceptualised as conflict resolution styles) and team cohesion there is no good fit between the elements of the empirically structural model and the theoretically hypothesised model.	No
Ha3	Based on the overall statistical relationship between the psychological variables (conceptualised as self-worth and personality preferences), sociological variable (conceptualised as conflict resolution styles) and team cohesion there is a good fit between the elements of the empirically structural model and the theoretically hypothesised model	Yes
H04	The socio-demographic variables (age, gender, race, qualifications, job level and job tenure) do not significantly moderate the relationship between psycho-social variables conceptualised as self-worth, personality preferences and conflict resolution styles, and team cohesion.	No
Ha4	The socio-demographic variables (age, gender, race, qualifications, job level and job tenure) do significantly moderate the relationship between psycho-social variables conceptualised as self-worth, personality preferences and conflict resolution styles, and team cohesion.	Yes
H05	There are no significant mean differences that exist between the sub-groups of the socio-demographic variables (age, gender, race, qualifications, job level and job tenure) that acted as significant moderators between the psycho-social variables and team cohesion as manifested in the sample of respondents.	No
Ha5	There are significant mean differences that exist between the sub-groups of the socio-demographic variables (age, gender, qualifications, job level and job tenure) that acted as significant moderators between the psycho-social variables and team cohesion as manifested in the sample of respondents.	Yes

5.5 CHAPTER SUMMARY

This chapter provided the findings of the descriptive, correlational and inferential statistics to examine the nature of the empirical relationships between the psycho-social-related disposition attributes (self-worth, conflict resolution styles and personality preferences) and team cohesion. The findings of the literature review and

the empirical research were interpreted and provided support for the research hypotheses.

The following research aims were achieved:

Research aim 1 was to empirically explore the nature and the inter-relationships between the independent psycho-social variables (self-worth, personality preferences and conflict resolution styles) and the dependent variable team cohesion.

Research aim 2 To empirically assess whether the psychological variables (conceptualised as self-worth and personality preferences) and sociological variable (conceptualised as conflict resolution styles), positively and significantly predict team cohesion (while controlling the socio-demographic variables)

Research aim 3: To empirically investigate the overall statistical relationship between the psychological variables (conceptualised as self-worth, personality preferences), the sociological variable (conceptualised as conflict resolution styles) and team cohesion, and to empirically assess the statistical fit between the elements of the empirically manifested structural model and the theoretically hypothesised model.

Research aim 4. To empirically assess whether the socio-biographical variables (age, gender, race, qualifications, job level and tenure) significantly moderate the relationship between the psycho-social variables, conceptualised as self-worth, personality preferences, and conflict resolution styles and team cohesion.

Research aim 5 To empirically investigate whether significant mean differences exist between the subgroup of socio-biographical variables (age, gender, race, qualifications, job level and tenure) that acted as significant moderators between the psycho-social variables, conceptualised as self-worth, personality preferences, conflict resolution styles and team cohesion, as manifested in the sample of respondents.

Chapter 6 will highlight Research aim 6, namely, to draw conclusions based on the findings and make recommendations for the enhancement of team cohesion in an organisational context, and for future based on the findings of the study.

CHAPTER 6: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The aim of Chapter 6 is to discuss the conclusions of the study, to present the limitations and to make recommendations for the fields of Consulting Psychology and Industrial and Organisational Psychology, pertaining to the enhancement of team cohesion practices.

6.1 CONCLUSIONS

Finally, to recap what was stated in chapter 1 the following conclusions were drawn regarding the literature review and the empirical investigation.

6.1.1 Conclusions regarding the literature review (Phase 1)

The general aim of the study was to explore and determine the elements and the nature of the team cohesion model that manifests from investigating the relationship dynamics between the psycho-social attributes (self-worth, personality preferences and conflict resolution styles) and team cohesion, and to explore whether individuals from different socio-demographic groups differ significantly regarding these variables.

Research aim 1: To explore psychological variables conceptualised as self-worth and personality preferences, from a theoretical perspective.

Research aim 2: To explore sociological variables (conceptualised as conflict resolution styles and team cohesion, from a theoretical perspective.

Research aim 3: To explore the theoretical relationship between psycho-social variables (self-worth, personality preferences) and conflict resolution styles, team cohesion and socio-biographical variables, conceptualised as age, gender, race, qualifications, job level and job tenure, from a theoretically perspective.

Research aim 4: To construct a theoretical perspective model on the relationship between psycho-social variables, conceptualised as self-worth,

personality preferences and conflict resolution styles and team cohesion.

Research aim 5: To critically evaluate the implications of the overall theoretical relationship between the psychological disposition constructs and sociological disposition constructs by means of an integrated team cohesion model for Consulting Psychology and Industrial and Organisational practices regarding team cohesion development and enhancement.

6.1.1.1 First aim: To explore psychological variables, conceptualised as self-worth and personality preferences

The first aim was to theoretically explore the psychological variables, namely, self-worth and personality preferences from the systems interpersonal perspective and Jung's psychological personality types/preferences that influence and enhance team cohesion variables. This aim was achieved in Chapter 2.

In particular, the following conclusions have been drawn:

Team members with compassionate goals tend to be responsive to other members, and invariably lead the other members to reciprocate by also becoming responsive in return. This relational exchange results in mutually satisfying relationships (Canevello & Crocker, 2017; Crocker & Canevello, 2008;). Members with compassionate goals are primarily engaged with others and support them. They are motivated by a genuine concern for the other members' well-being (Niiya, Crocker & Mischkowski, 2013). The compassionate goals are linked to the accommodating, collaborating and compromising conflict resolution styles.

Team cohesion must be understood in the context of the individual's self-worth and personality preferences. Individual members with compassionate goals in their interpersonal relations are dominated by a non-zero-sum belief and growth seeking, whereas members with self-image goals are dominated by a zero-sum belief, which is associated with self-validation and defensive responses to conflict (Niiya *et al.*, 2013). The self-image goals are linked to the competing and avoiding conflict resolution styles (Crocker *et al.*, 2003).

The construct of self-worth should be studied from a multi-dimensional perspective. This is what Canevello and Crocker (2017) described as the contingencies of self-worth, namely, family support, religion, virtues, competition, work competence, appearance and pleasing others. These self-worth contingencies can be delineated as being internal or external domains. Self-worth depends on the external situation and the role behaviour demands expected by others from the individual in the team environment.

Individuals who are high in self-worth tend to approach the external team environment with a high degree of confidence. They evaluate their team situation as an opportunity to relate with others and to further enhance their self. Consequently, they may subjectively present themselves unrealistically in interpersonal relationships.

The literature review revealed that individuals manage and self-evaluate their self-worth in the same manner in which they control their emotions. Individuals always regulate their self-worth in response to the contingencies of their self-worth.

6.1.1.2 Second aim: To explore the sociological variables, conceptualised as conflict resolution styles and team cohesion

The second aim was to theoretically explore the social psychological variables, namely, the conflict resolution styles (competing, avoiding, compromising, accommodating and collaborating) that influence and enhance team cohesion. This was achieved in Chapter 3.

In particular, the following conclusions have been drawn:

Team cohesiveness must be understood in the context of the various individuals' conflict resolution styles where they stick together to achieve the shared team goals. Team cohesion is not an event, but evolves through a non-linear or chaotic process, whereby members remain attracted to each other and are motivated to stay in the team. The interactionist view, in contrast to the traditional linear view, encourages conflict (as a positive force) to be creative, self-critical, harmonious and cooperative instead of the team becoming static and unresponsive to change and innovation (Robbins & Judge 2015; Weerarathna, 2017). Team members in highly cohesive teams tend to show greater enthusiasm and engage more frequently which result in positive interpersonal relations and an increase in team task performance (Chiniara & Bentein, 2017).

6.1.1.3 Third aim: To explore the theoretical relationship between the psycho-social variables (self-worth, personality preferences) and conflict resolution styles, team cohesion and socio-biographical variables, conceptualised as age, gender, race, qualifications, job level and job tenure

The third aim, namely, to explore the theoretical relationship between psycho-social variables (self-worth, personality preferences) and conflict resolution styles, team cohesion and socio-biographical variables, conceptualised as age, gender, race, qualifications, job level and job tenure, from a theoretical perspective was achieved in Chapters 2 and 3.

6.1.1.4 Fourth aim: To construct a theoretical perspective model on the relationship between psycho-social variables, conceptualised as self-worth, personality preferences, conflict resolution styles and team cohesion

The fourth aim, namely, to construct a theoretical perspective model on the relationship between psycho-social, conceptualised as self-worth, personality preferences and conflict resolution styles, and team cohesion was achieved in Chapters 2 and 3.

In particular, the following conclusions have been drawn:

To succeed, many organisations in the world rely on teams to offer excellent functional expertise to customers and to create brand value and exceptional returns for shareholders. Consequently, they assign work around teams, in order to be flexible, adaptive and responsive to the complex and highly competitive global environment (Chiniara & Bentein, 2017).

Team members with self-image goals tend to react defensively in their interpersonal relationship with others. Instead of actively engaging and finding constructive solutions together with them, they are pre-occupied with attempts to avoid bringing unnecessary interpersonal conflict into the team. They tend to create the appearance of being good team members (Niiya *et al.*, 2013).

These self-image goals are related to the avoiding conflict resolution style. Tou, Baker, Hadden and Lin (2015) found a positive correlation between egoistic self-image goals and the avoiding conflict resolution style. Individuals with egoistic self-image goals tend to have lower levels of personal compassion, which are related to their conflict

resolution style that hinders them from establishing effective social relationships with others (Crocker & Canevello, 2008; Canevello & Crocker, 2017).

6.1.1.5 Fifth aim: To critically evaluate the implications of the overall theoretical relationship between the psychological disposition constructs and sociological disposition constructs by means of an integrated team cohesion model for Consulting Psychology and Industrial and Organisational Psychology practices regarding team cohesion development and enhancement

The fifth aim, namely, to critically evaluate the implications of the overall theoretical relationship between the psychological disposition constructs and sociological disposition constructs by means of an integrated team cohesion model for Consulting Psychology and Industrial and Organisational Psychology practices regarding team cohesion development and enhancement was achieved in Chapter 2 and 3.

In particular, the following conclusions have been drawn:

The implications of the psycho-social team cohesion model for Consulting Psychology and Industrial and organisational Psychology pertaining to team cohesion enhancement cannot be overlooked, because the understanding of individuals' self-worth, interpersonal goals (self-image and compassionate goals), their conflict resolution styles (competing, avoiding, compromising, accommodating and collaborating) and personality preferences play a significant role towards the achievement of team cohesion.

Conflict is part of individual lives and is unavoidable (Tou *et al.*, 2015). Conflict exists in everyday life and individuals use different conflict resolution styles to resolve it (Wickham, Williamson, Beard, Kobayashi & Hirst, 2016) and how they handle their interpersonal conflict depends on their interpersonal goals (Gray, Ozer & Rosenthal, 2017). Their interpersonal goals could be either self-image or compassionate goals (Canevello & Crocker, 2017; Jiang, Canevello, Gore, Hahn & Crocker, 2017 & Erickson, Granillo, Crocker, Abelson, Reas & Quach, 2018).

Understanding the link between the relationship dynamics of the psycho-social attributes and team cohesion enhancement practices will enable Consulting Psychology and Industrial and organisational Psychology to design and facilitate effective processes which will lead to the accomplishment of organisational outcomes.

6.1.2 Conclusions regarding the empirical study

The study was designed to perform the following six tasks:

1. To empirically explore the nature and the inter-relationships between the independent psycho-social variables (self-worth, personality preferences and conflict resolution styles) and the dependent variable team cohesion. This was achieved by empirically testing hypothesis Ha₁.
2. To empirically assess whether the psychological variables (conceptualised as self-worth, personality preferences) and sociological variable (conceptualised as conflict resolution styles), positively and significantly predict team cohesion (while controlling the socio-demographic variables). This was achieved by empirically testing hypothesis Ha₂.
3. To empirically investigate the overall statistical relationship between psychological variables (conceptualised as self-worth and personality preferences), the sociological variable (conceptualised as conflict resolution styles) and team cohesion, and to empirically assess the statistical fit between the elements of the empirically manifested structural model and the theoretically hypothesised model. This was achieved by empirically testing research hypotheses Ha₃.
4. To empirically assess whether socio-biographical variables (age, gender, race, qualifications, job level and job tenure) significantly moderate the relationship between the psycho-social variables, conceptualised as self-worth, personality preferences and conflict resolution styles and team cohesion. This was achieved by empirically testing hypothesis Ha₄.
5. To empirically investigate whether significant mean differences exist between the subgroup of socio-biographical variables (age, gender, race, qualifications, job level and job tenure) that acted as significant moderators between the psycho-social variables, conceptualised as self-worth, personality preferences and conflict resolution styles and team cohesion, as manifested in the sample of respondents. This was achieved by empirically testing hypothesis Ha₅.
6. To draw conclusions based on the findings and make recommendations for the enhancement of team cohesion in an organisational context, and for future research based on the findings of the study. This achieved by empirically testing hypothesis Ha₆.

6.1.2.1 First aim: Interpretation of the canonical correlation analysis results

Research aim 1 was to empirically explore the nature and the inter-relationship between the independent psycho-social variables (self-worth, personality preferences and conflict resolution styles) and the dependent variable team cohesion.

The empirical results provide supportive evidence for research hypothesis Ha₁. The following overall conclusions have been drawn in this regard:

Conclusion 1: Individual psycho-social variables (self-worth, personality preferences and conflict resolution styles) are significantly related to team cohesion-related dispositions (cohesiveness and engaged).

Based on the significant relationships found between the participants' psycho-social resources and the team cohesion-related dispositions, the following conclusions can be drawn:

- Self-worth, personality preferences and conflict resolution styles are strong predictors of team cohesion attributes. Ramdhani, Ramdhani and Ainisyifa (2017) found that team cohesion was achieved when teams develop a sense of shared commitment and synergy among members, and teamwork was increasingly significant as an organisational culture in order to improve productivity and employees' commitment.
- The participants' self-worth was based on their contingencies of the God's love domain in relation to the fostering and enhancement of team cohesion. Kovacheff, Schwartz, Inbar and Feinberg (2018) found that although morality was a source of inter team conflict, it was, however, a source of the positive correct behaviour necessary for team cohesion.
- The participants' high scores in the self-worth domains of family support and work competence increased their sense of self-worth in their team's interpersonal relations. Family support and team cohesion were also found to be related to gratitude (Robustelli & Whisman, 2018).
- Participants who prefer the extraversion personality type had high scores. This implies their attitude and energy are mainly directed to their outer world of people and objects. According to Coetzee (2005) the MBTI personality test was fundamentally designed to implement Jung's theory and to assess the different

types of personality preferences. The MBTI was used in this research study to measure the participants' types (Michael., 2003)

- Extraverted participants are more engaged and committed to their team and organisation. Potgieter (2012), in a study conducted in South Africa, found a positive correlation between extraversion and emotional intelligence. Extraversion predicted a higher sense of psychological well-being, a higher level of self-acceptance and a sense of belongingness (Potgieter, 2012).
- The positive relationships observed between extraversion and team cohesion suggest that individuals have a high overall perception of themselves. Deckers, Altmann and Roth (2018) found that team openness and cohesion were directly related to the personality structure of the team.
- Participants who scored high on the Thinking personality type, base their conclusions on logical analyses in their interpersonal relationships with high levels of confidence.
- Participants with high scores in the Thinking type, use logical intellectual activities and decision process skills to foster team cohesion.
- Participants who scored high in Thinking type, collect and verify facts for themselves and team members. Böhmová and Chudán (2018) concurred that the thinking type was a way of evaluating information, and maintained that the Human resources departments were using the MBTI test to determine the personality types of potential candidates.
- Participants with a high score in the Judging type, suggests that they are more likely to manage their own emotions, and are more sociable in the team environment.
- Participants who scored high in the iNtuition personality preference type, suggests that they use their foresight to emphasise the significance of cooperation and team engagement.
- Participants who scored high in the iNtuition personality preference type are future orientated and proactively improve their participation with other team members. They use information to make team members understand the big picture.
- Participants who scored high in the iNtuition personality preference type provide possibilities to other team members.

- Participants with high scores in the iNtuition personality preference type are impersonal, provide critical analyses of systems, develop strategies and long-term goals.
- Participants who that scored high in the iNtuition personality preference type focus on patterns, meanings, abstract concepts and imaginations to the benefit of the whole team. The intuition personality type is associated with architectural design products in terms of images and forms (Aderonmu, Geshinde, Adewale, Erebor & Sholanke, 2018).

Conclusion 2: The participants' overall dominant ENTJ personality type can be summarised as being frank, assertive, logical, decisive team players, who generally enjoy long-term planning, goal-setting and present as somewhat forceful in presenting their ideas to others in the team, excellent solvers of team and organisational problems, and continue organising members to move in the right direction.

- The participants' high mean value was the collaborating conflict resolution style, and that suggests that team members succeed in integrating ideas and solutions in order to achieve team goals, and by extension, organisational goals. According to Ayoko and Chua (2014), collaborative conflict management has a positive impact on an affective team outcome, like team cohesion. Maltarich, Kukenberger, Reilly and Mathieu (2018) concurred that interpersonal relationship conflict was positively related to superior performance when conflict management in teams was cooperative and collaborative.
- Participants' second high mean value was the compromising conflict resolution style, and that suggests compromise facilitated problem-solving and helping to contain the inevitable interpersonal conflict amongst team members.
- Participants' third high mean value was the accommodating conflict resolution style, and that suggests that team members have to sacrifice and become less assertive in order to preserve the interpersonal relationships.
- The participants' competing and avoiding conflict resolution styles means that value scores were lower, suggesting that the two conflict resolution styles do not play any significant role in team cohesion. DeChurch, Mesmer-Magnus and Doty (2013) found that a highly competitive conflict management approach led to mistrust among team members. In contrast, the cooperative conflict management styles in

teams dampened the negative effect of interpersonal conflict on performance (Maltarich *et al.*, 2018).

- All the participants' seven contingencies of self-worth domains (family support, God's love, competition, virtue, physical appearance, pleasing others and approval from others) are significantly and directly-related to the composite set of team cohesion dispositions of cohesiveness and engaged.

6.1.2.2 Second aim: Interpretation of the multiple regression results

Research aim 2 was to empirically assess whether the psychological variables (conceptualised as self-worth and personality preferences) and sociological variable (conceptualised as conflict resolution styles) positively and significantly predict team cohesion (while controlling the socio-demographic variables).

The empirical results provided supportive evidence for Research Hypothesis Ha₂. The following overall conclusion has been drawn in this regard:

Conclusion: Significant differences exist between racial groups, young and old employees, professionals and unskilled employees, and employees with long and short work experiences. Some typical examples are the following:

- The mean rank score of coloured employees was high on extraversion when compared to other race groups (see Table 5.30).
- The mean rank score of unskilled employees was high on family support when compared to other job level groups (see Table 5.33).
- The mean rank score of unskilled employees was high on the accommodating conflict resolution style when compared to other job level groups (see Table 5.35).
- The mean rank score of employees who were aged 56 and above was high on family support when compared to other age groups (see Table 5.36).
- The mean rank score of employees who were aged 56 and above was high on extraversion when compared to other age groups (see Table 5.37).
- The mean rank score of employees in possession of post-graduate degrees was high on family support when compared to other educational level groups (see Table 5.39).
- The mean rank score of employees with more than 21 years' work experience was high on family support when compared to other tenure groups (see Table 5.42).

The test for significant mean differences was able to match the selected socio-biographical variables with the contingencies of self-worth domains, personality preferences, accommodating conflict resolution style and team cohesion. The statistical significant results identify the central core variables, such as extraversion (personality preference) family support (contingencies of self-worth domain) and accommodating (conflict resolution style) which can be relied upon to enhance team cohesion at the workplace.

6.1.2.3 Third aim: Interpretation of the structural equation modelling results

Research aim 3 was to empirically investigate the overall statistical relationship between the psychological variables (conceptualised as self-worth and personality preferences), the sociological variable (conceptualised as conflict resolution styles) and team cohesion, and to empirically assess the statistical fit between the elements of the empirically manifested structural model and the theoretically conceptualised model.

The empirical results provide supportive evidence for Research Hypothesis Ha3. The following overall conclusion has been drawn in this regard:

The structural equation modelling (SEM) analysis assisted in the empirically constructed model and tested the best model fit for the constructed contingencies of the self-worth domains, personality preferences and conflict resolution style that can be used to develop organisational strategies to enhance team cohesion behaviour. The compared fit of the model was congruent to guidelines provided in the literature (Sideridis, Simos, Papanicolaou & Fletcher, 2014).

The test statistics and goodness-of-fit indices generated by AMOS 21 (Arbuckle, 1995 – 2012) were inspected and produced three models, with the third model showing the best fit, and to validate the overall relationship between the psycho-social disposition independent constructs (self-worth, personality preferences and conflict resolution styles) and the dependent construct (team cohesion),

The initial baseline model (as shown in Table 5.22 shows a poor fit, with a chi-square of:

1721 (406 df); CMIN/df = 4.2; AGF = .63; CFI = .87; SRMR = .06; and RMSEA = .10

The second model (as shown in Table: 5.21) shows a 97% improvement in the model (CFI = .97) with a chi-square of = 82.17 (14 df) CMIN/df = 5.9; AGFI = .86; RMSEA = .12 (poor fit).

The third model (as shown in Table: 5.22) shows an improvement in the model (CFI = .99) and an acceptable adjusted goodness-of-fit of .94 (AGFI = .94), a perfect fit of RMSEA of .07 (RMSEA = .07), and an acceptable SRMR of .02 (SRMR = .02) with a chi-square of 22.02 (9 df); CMIN/df = 2.4. Overall the model 3 fit well with the theoretical model constructed (see Figure: 5.3).

The statistical results of the SEM analyses were regarded as the measurement of the model. This was done in line with the guidelines provided by Schumacker and Lomax (2010, 2016) depicted in Table 6.1 below. The researcher assumed that there is an adequate fit between the structural model (see Figure 5.3) and the measurement data, when a confirmatory fit index (CFI) of .90 or higher, a root mean square error of approximation (RMSEA) of .8 or lower, and a standard root mean residual (SRMR) of .5 or lower was obtained.

The scatter plot (see Figure: 5.2) further illustrates and confirms the overall correlation between the psycho-social constructs and the dependent construct (team cohesion). The scatter plot also shows that there are no significant outliers in line with McGrath's (2014) guideline who defined an outlier as an observed value that has a standard deviation that is three times above the mean.

Table: 6.1
Model-fit criteria and fit interpretation

Model-fit Criterion	Acceptable level	Interpretation
Goodness-of-fit index (GFI)	0 (no fit) to 1 (perfect fit)	Value close to .90 or .95 reflects a good fit
Adjusted GFI (AGFI)	0 (no fit) to 1 (perfect fit)	Value adjusted for df, with .90 or .95 A good model fit
Root-mean-square error of approximation (RMSEA)	.05 to .08	Value of .05 to .08 indicates close fit
Tucker-Lewis Index (TLI)	0 (no fit) to 1 (perfect fit)	Value close to .90 or .95 reflects a good fit
Comparative fit Index (CFI)	0 (no fit) to 1 (perfect fit)	Value close to .90 or .95 reflects a good fit

Normed fit Index (NFI)	0 (no fit) to 1 (perfect fit)	Value close to .90 or .95 reflects a good fit
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Source: Schumacker & Lomax, 2010, 2016

The objective of the SEM multivariate analyses was to test the theories with the purpose of determining the statistical significance of the hypothesised theoretical model and its practical and substantive importance. Overall, the main component of SEM included the path model, confirmatory factor analysis, and regression model.

The goodness-of-fit (GFI) illustrated a significant amount of covariances in the sample, predicted by the estimates of the population. The adjusted goodness-of-fit index (AGFI) illustrated a relative significant amount of variance accounted for by the model that connected for the degrees of freedom in the constructed model relative to the number of variables. The model fits well GFI and AGFI because the indices were closer to 1.00 as per the guidelines provided by Schumacker and Lomax (2010; 2016).

The structural equation model (empirically tested contingencies of the self-worth domains, personality preferences and conflict resolution styles) emphasised that family support, appearance, competition, God's love, work competence, virtue and approval from others (self-worth domains), extraversion (personality preference) and accommodating (conflict resolution style) should be considered when formulating team cohesion strategies, particularly in establishing new working teams after acquisitions and mergers in financial institutions (see Figure 5.3).

The results depicted in Figure: 5.3 reveal significant relationships between the independent and dependent variables. Specifically, the results reveal that overall, the self-worth construct appears to be strongly correlated to team cohesion's two canonical variates of cohesiveness and engaged.

The individual dimensions of the self-worth construct that contributed significantly in explaining the two team cohesion variates, namely, cohesiveness (.96) and engaged (.99), were family support which accounted .86; appearance which accounted .79; competition which accounted .94; God's love which accounted .95; work competence which accounted .84; virtue which accounted .81; and approval which for .81. (See Figure: 5.3)

Furthermore, the canonical correlation analysis revealed a positive relationship between the personality preference of extraversion and the team cohesion variates of

cohesiveness at .73 and engaged at .65. In respect to the conflict resolution style the results revealed that accommodating accounted .66 for cohesiveness and .66 for engaged. The direct relationship between the two team cohesion variates was .96 for cohesiveness and .99 for engaged, with the covariance between the variates being .93. (see Figure: 5.3).

DeChurch *et al.* (2013) found that the team members can move towards or against the collective team goals and interests, by either displaying 'concern for the self' (self-image goals) or 'concern for the other party' (compassionate goals).

Team members with compassionate goals and the eco-system perspective were found to be supportive and constructive towards others. Javed, Naseer, Rahim, Shariff, Sheraz and Ahmad (2017) found a significant relationship between the team players' performance and team cohesion. The focus on the need of others benefited both the self and relationships (Crocker, Canevello & Lewis, 2017 & Stewart Ahrens & Gunthert, 2018).

The findings were significantly relevant to the financial institution where this research study was conducted, as teamwork is one of the organisational values. Teamwork is encouraged to enhance harmony among the employees. The constructed team cohesion model will invariably direct and foster employees to achieve high cohesiveness, engagement and a commitment towards achieving the organisational goals.

6.1.2.4 Fourth aim: Interpretation of the hierarchical moderated regression analysis

Research aim 4 was to empirically assess whether socio-biographic variables (age, gender, race, qualifications, job level and job tenure) significantly moderate the relationship between the psycho-social variables, conceptualised as self-worth, personality preferences and conflict resolution styles and team cohesion.

The empirical results provided supportive evidence for Research Hypothesis Ha₄. The following overall conclusion has been drawn in this regard.

Conclusion: Race, age, qualifications and tenure moderate the relationship between the participants' psycho-social variables and their team cohesion-related dispositions.

- Race significantly moderated the participants' relationship with extraversion (personality preference), family support (contingencies of self-worth domain) and

team cohesion-related dispositions. Eungwang and Diane (2017) concurred that there was a close relationship between race and ethnicity and team cohesion (see Table 5.23).

- Age significantly moderated the participants' relationship with extraversion (personality preference), family support (contingencies of self-worth domain) and team cohesion-related dispositions. In the study conducted by Deckers *et al.* (2018) age, gender and professionals were found to be positively related to openness and team cohesion (see Table 5.24).
- Qualifications significantly moderated the participants' relationship with extraversion (personality preference), family support (contingencies of self-worth domain) and team cohesion-related dispositions. This was supported by the study by Leicht, Townes and Franz (2017) that found a positive relationship between qualifications, team cohesion and a collaborative environment. These qualified professionals included architects, engineers and construction managers (see Table: 5.25).
- Tenure significantly moderated the participants' relationship with extraversion (personality preference), family support (contingencies of self-worth domain) and team cohesion-related dispositions. This was supported by Peng-Yu (2018) who maintained that increased tenure was positively related to less interpersonal conflict within the team, and enhanced the pressure for cohesion (see Table: 5.26).

Based on these findings, it can be concluded that for the enhancement of team cohesion purposes, it is vital for organisations to take the socio-biographic variables, namely, race, age, qualifications and tenure into consideration, as these variables significantly moderate the relationship between the participants' psycho-social variables and the team cohesion-related dispositions.

6.1.2.5 Fifth aim: Interpretation of the results of the tests for significant mean differences

Research aim 5 was to empirically investigate whether significant mean differences exist between the subgroup of socio-biographical variables (age, gender, race, qualifications, job level and job tenure) that acted as significant moderators between the psycho-social variables, conceptualised as self-worth, personality preferences, conflict resolution styles and team cohesion, as manifested in the sample of respondents.

Race

The results showed that the Indian group scored higher on competing, and the Coloured group scored higher on accommodating and collaborating, whereas both the African and White groups scored higher on compromising. It is interesting to note that both the African and White groups scored higher on the compromising resolution style, given the past history of racial discrimination and Apartheid policies before the dawn of democracy in 1994. The result is in line with Vandeyar and Mohale (2016) who found that race in South Africa can be used to break the racial discrimination created by the Apartheid ideology, and to foster harmonious interpersonal relations, promote human equality, lead to an appreciation of differences, and increase the drive for social justice (see Table: 5.32).

Gender

The results showed a significant negative relationship for both male and female respondents with regard to the collaborating conflict resolution style. This is in contrast with the findings by Gbadamosi, Baghestan and Al-Mabrouk (2014) who found significant differences between the male and female collaborating conflict resolution styles.

Furthermore, the study shows that males and females do not differ significantly with regard to the competing and accommodating conflict resolution styles. However, in the study conducted by Gbadamosi *et al.* (2014) the results showed great significant differences, as the male group was found to use the accommodating, avoiding and compromising conflict resolution styles more than the female group (see Table: 5.18).

Age

Table: 5.38 is of relevance to the age mean differences.

The results showed that the group aged 26 to 40 years scored higher on competing and accommodating, and the group aged 25 years and younger scored higher on avoiding, and the group aged 41 to 55 years scored higher on compromising, whereas the group aged 56 years and above scored higher on collaborating. Gbadamosi *et al.* (2014) found that employees who were 35 years and below significantly used the accommodating and compromising conflict resolution styles, whereas employees who were 36 years and above significantly used the avoidance style. No significant

differences were found among other age groups in using the competing and collaborating conflict resolution styles.

It is interesting to report that in the study conducted by Waithaka, Moore-Austin and Gitimu (2015) no significant statistical differences were found in the age and gender of participants in all five the conflict resolution styles. Hussain's (2015) findings concurred with Waithaka *et al.* (2015) and found no significant differences between males and females in the subscale of the Thomas-Kilmann conflict mode instrument pertaining to the competing, collaborating, compromising, avoiding and accommodating conflict resolution styles (see Table 5.38).

Tenure

Table: 5.44 is of relevance to the tenure mean differences.

The results showed that the mean rank of employees with a job tenure of 6 to 10 years scored higher on competing and avoiding, the group of employees with a job tenure of 11 to 15 years scored higher on accommodating, whereas the group of employees with a job tenure of 21 years and above scored higher on compromising and collaborating.

It is interesting to note that the group of employees with a job tenure of 5 years and below scored low in all the conflict resolution styles. This result is in line with the findings by Leksell, Garduff, Nilsson and Lepp (2015) who found no significant differences between employees with a job tenure of less than 2 years and conflict resolution styles. However, Leksell *et al.* (2015) found significant correlation between employees with a job tenure of more than 2 years, as they, according to their study, possessed superior conflict management competence when compared to employees with shorter work experience (see Table: 5.44).

6.1.3 Conclusions regarding the central hypothesis

The central hypothesis in Chapter 1 was formulated as follows:

Based on the results of the SEM analysis and the goodness of fit indices a model of psycho-social team cohesion was developed and is shown in figure 6.1.

Individuals with differing socio-demographic variables, namely, race, age, educational level and job tenure will differ significantly with regard to the contingencies of self-worth family support domain, the personality preference of extraversion, and the

accommodating conflict resolution style, and the team cohesion-related disposition of cohesiveness and engaged. Since the empirical study provided statistically significant evidence to support the central hypothesis, it is therefore accepted.

6.1.4 Conclusions about the contributions to the fields of Consulting Psychology and Industrial and Organisational Psychology

6.1.4.1 Conclusions in terms of the literature review

The findings of the literature review contributed to the fields of Consulting Psychology and Industrial and Organisational Psychology, and particularly to the fostering and enhancement of team cohesion. The literature review provided new insight into how the individual contingencies of self-worth domains, personality preferences, conflict resolution styles and team cohesion are related.

The study also contributed new insights by providing relevant information on the psychological disposition constructs of self-worth and personality preferences that can be linked with the individual's self-perceptions, self-evaluation and experiences during interpersonal interactions in the workplace.

Furthermore, the positive contingencies of the self-worth domains, in particular family support, the extraversion personality type and the accommodating conflict resolution style invariably lead to effective interpersonal relations and individuals feeling accepted by the work team.

The understanding of the contingencies of self-worth, personality preferences and conflict resolution styles will help to understand their behavioural actions and manifestations during team cohesion enhancement activities, including feelings of oneness and dependence on other team members, as demonstrated in the following seven actions that confirmed the study conducted by Wongpakaran *et al.* (2013):

- Team members acceptance by the team and attraction to the team lead to social cohesion.
- A high level of trust among team members leads to social cohesion.
- Team members' care for each other will lead to social cohesion.
- Team members' understanding and commitment to team activities, goals and objectives will lead to task cohesion.
- Members' increased sense of participation, manifested in effective communication, characterised by openness and transparency will lead to task cohesion.

- Members' increased level of conformity to the team's norms will lead to social cohesion.
- Members will feel emotionally safe to divulge personal, deep and sensitive information and feelings, linked to their internal contingencies of the self-worth domain and personality preferences that will lead to psychological cohesion.

6.1.4.2 Conclusions in terms of the empirical study

The statistical relationships observed among the contingencies of the self-worth scale, the Myers-Briggs type indicator, the Thomas-Kilmann conflict resolution instrument and the Group cohesion scale can be used to foster and enhance team cohesion.

The structured equation modelling (SEM) and multiple regression analyses from these four measuring instruments show that the individual's psychological-related disposition constructs of the contingencies of the self-worth domain (family support), the personality preference type (extraversion), and the accommodating conflict resolution style are significantly related to the team cohesion canonical-related disposition of cohesiveness and engaged.

The canonical correlation analyses confirmed the overall relationship between the psychological constructs of self-worth and personality preferences, and the social psychology constructs of conflict resolution styles and team cohesion-related dispositions, and highlighted the key variables that influence the overall relationships. The hierarchical moderated regression analyses and tests for significant mean differences assisted in identifying the socio-biographical groups that moderated the psychological disposition variables and the social psychological variables influencing, fostering and enhancing team cohesion.

The structural model (empirically tested psycho-social team cohesion model) highlighted the contingencies of the self-worth domains, namely, family support, God's love, virtues, competition, work competence, physical appearance and pleasing others, the extraversion personality preference type and the accommodating conflict resolution style as interpersonal behavioural variables that need to be considered in the design and construction of team cohesion practices.

The scientific statistical analyses enabled and allowed the researcher to identify core psychological attributes, social psychological elements and socio-biographic characteristics of the sample group that are substantially significant to consider in the

design and construction of the enhancement of team cohesion practices. These were highlighted in the conclusions section for each research aim.

6.1.4.3 Conclusions in terms of team cohesion practices

With respect to the contingencies of the self-worth domains, personality preferences and conflict resolution styles, and team cohesion, both the literature and empirical results have contributed new knowledge to the fields of Consulting Psychology and Industrial and Organisational Psychology, particularly, in terms of the fostering and enhancement of the team cohesion construct.

The literature review provided insights into understanding the individual's contingencies of the self-worth domains, personality preferences, conflict resolution styles and team cohesion, in general. The inter-relationship between the contingencies of the self-worth domains, personality preferences, conflict resolution styles and team cohesion provided new knowledge on the psychological states of the establishment and enhancement of team cohesion during acquisitions and mergers in financial institutions.

Team cohesion can be significant variable of interest during the acquisitions and mergers of business entities, more especially in the financial sector and other organisations listed in the Johannesburg Stock Exchange (JSE), pertaining to volatile share markets and the drive to sustain organisational performance and continued profitability. Previous studies have confirmed that during organisational mergers and acquisitions, team cohesion and organisational superordinate goals are essential to deal with the inevitable post-merger intra- and intergroup relations, which can result in negative antagonistic tendencies, thus jeopardising the success of the mergers and acquisitions (Hogg & Terry, 2000).

The most recent study has further confirmed that team harmony and social identity positively facilitate conflict and cooperation among members, because team members have a common overarching in-group identity that enhances and improves relations (Hogg, Abrams & Brewer, 2017). The eco-system perspectives described by Crocker and Canevello (2015; Canevello & Crocker, 2017) maintain that compassionate goals enhance team support, genuine concern for others and increases the members' sense of belongingness, in contrast to self-image goals that harm and undermine team cohesion in an ego-system perspective.

Team cohesiveness mitigates the relational conflict emanating from personality differences. According to Wheelan (2016), the team members' effective conflict resolution styles also create trust and cohesiveness. The competitive conflict management styles negatively affect team performance (Maltarich *et al.*, 2018).

Krispin (2017) clearly summarised team cohesiveness into the following four characteristics:

- It is multidimensional. Many factors and attributes may contribute to members' eagerness to remain in the team.
- Team cohesion is a dynamic force that fosters sustained unity over the life span of the team.
- It is instrumental. This relates to the fact that when members understand the team's purpose, whether task or social orientated, the team cohesion will be developed and maintained.
- It is fundamentally affective and relational in nature, as members emotionally stick together for various reasons. Canevello and Crocker (2017) concurred that individuals were social beings, and this was demonstrated through the achievement of their interpersonal compassionate goals.

In light of the foregoing conclusions, the current study intends to contribute to the literature in many ways. From a theoretical perspective, no published research has investigated the relationship between the contingencies of the self-worth domains, personality preferences, conflict resolution styles and team cohesion within a single model. Identifying the contingencies of the self-worth domains, personality preferences and conflict resolution styles could help financial organisations to effectively establish and enhance team cohesion during organisational re-alignment after acquisitions and mergers, without negatively affecting the financial services rendered to customers. Customer-centric is the core strategy to render uninterrupted services after acquisitions and mergers.

6.2 LIMITATIONS OF THE STUDY

In terms of the limitation of the research study, the following literature and empirical limitations were encountered:

6.2.1 Limitations in terms of the literature review

The literature review with respect to self-worth, personality preferences, conflict resolution styles and team cohesion within the South African financial institution context was limited because of the following:

Firstly, the literature provided several definitions of self-worth regarding dimensional aspects of self-worth. Using the contingencies of the self-worth domain by Crocker *et al.* (2003) limited the study to focus only on the seven identified specific contingencies, namely, family support, God's love, virtues, work competence, completion, physical appearance and pleasing others.

Secondly, the literature provided several definitions of the personality constructs. Using Myers-Briggs Type Indicator (MBTI) which described personality preferences along opposing dichotomies, forced the sophisticated financial institution participants to belong to rigid dichotomies.

Thirdly, the theory of relation or interpersonal conflict was generally complex in nature, using the Thomas-Kilmann resolution theory and instrument, limited the interpretation and management of interpersonal conflict in the workplace into five resolution styles measured along the two dimensions of assertiveness and cooperation, namely, competing, avoiding, compromising, accommodating and collaborating.

Lastly, the literature provided many definitions of team cohesion that had historically evolved over time, using the Wongpakaran *et al.* (2013) although a relatively recent theory and measuring instrument, could have limited the vast scope of the study and measurement of the team cohesion construct.

6.2.2 Limitations in terms of empirical study

In terms of the empirical study, the following limitations were encountered:

- The findings of the study cannot be generalised to the overall financial sector population in South Africa due to the relative small sample used in the study.
- An ethnic limitation might be present because the sample consisted predominantly of Black employees (so that white males were under-represented).
- The data was collected from a convenience sample of employees who volunteered. This method did not allow a random sample to be taken from the general population.

- A mere four measuring instruments were administrated in the study. The administration of more instruments could had revealed different results.

6.3 ETHICAL CONSIDERATIONS

The psychological measuring instruments used in the research study were regarded as both valid and reliable, and in compliance with Chapter 2 (prohibition of unfair discrimination) of the Employment Equity Act No. 55 of 1988 as amended. The Act seeks to give effect of section 9 (Equality clause) of the 1996 Constitution of the republic of South Africa.

According to Babbie (2013), ethical considerations form a significant part of the research study, and include the minimum standards of moral principles that are intended to guide the role of the researcher. Confidentiality was maintained throughout the study in order to ensure the data was available only to the researcher and the statistician. The financial organisation had no access to the data. The data will accordingly be stored at the researcher's office for a minimum of five years, in compliance with the Health Professions Council of South Africa (HPCSA). The participants remained strictly anonymous, and their identities were protected.

The ethical rules and procedures of The University of South Africa, College of Economic and Management Sciences and the joint departments of Psychology and Industrial and Organisational Psychology were strictly adhered to. The permission to conduct the research study was also obtained from the management of the financial organisation, as well as the Ethics committee.

6.4 RECOMMENDATIONS FOR THE PARTICIPATING INSTITUTION

In light of the findings, conclusions drawn and the highlighted limitations of the research study, the following recommendations for Consulting Psychology and Industrial and Organisational Psychology and related professions of human resources and occupational or industrial social work are made:

6.4.1 Recommendations for the fields of Consulting Psychology and Industrial and Organisational Psychology

The general research question of the study was to investigate relationship dynamics, the interrelationships and the overall relationship between self-worth, personality

preferences and conflict resolution styles (independent variables) and team cohesion (dependent variable).

Given the above, the general research question was formulated as:

To what extent can a team cohesion model for the measurement of psycho-social variables within a financial institution be constructed?

The findings provided valuable insight in terms of the research aims that could be used by the participating organisation to determine the employees' personal qualities and characteristics to be considered to establish and enhance team cohesion. Robbins and Judge (2016) described cohesiveness as the degree to which team members are attracted to each other and motivated to stay in the team. It is thus recommended that these characteristics of team cohesion be succinctly categorised into three categories, namely, context, composition and processes.

6.4.1.1 Context

The current study confirmed that the employees' contingencies of the self-worth domains, either internally or externally validated, play a significant role in fostering team cohesion. It is thus recommended that organisations should consider other significant team contexts as suggested by Robbins and Judge (2016), such as adequate resources, leadership and structure, climate of trust and performance evaluation and reward systems.

6.4.1.2 Composition

In the current study, the team composition was related to the employees' personality preferences. It is thus recommended that the organisations, in addition to the team members' personality attributes, should also consider other significant composition variables as suggested by Robbins and Judge (2016), such as the abilities of members, allocation of roles, diversity of members and the size of teams.

6.4.1.3 Processes

In the current study, the team members' conflict resolution styles and processes played a crucial role in dealing with the inherent interpersonal conflict in team processes. It is thus recommended that organisations that intend to remain competitive and gain competitive edge in the global market, should establish cohesive and effective teams. It is thus recommended that other significant processes as suggested by Robbins and

Judge (2016), that include amongst others the team members' commitment to a common purpose, the establishment of specific goals, team efficacy and a managed level of interpersonal conflict, and controlled and minimised social loafing should be considered.

6.4.2 Recommendations for further studies

It is recommended that further studies should be conducted to determine the relationship between the psycho-social disposition variables and team cohesion across different sectors, so that the current findings can be generalised to a broader spectrum across various industries.

Further studies can be explored to broaden the contingencies of the self-worth domains to include additional dimensions, in addition to the seven dimensions developed by Crocker (2002), more particularly relevant to developing countries, such as Brazil, Russia, India, China and South Africa (Brics group) and the African continent, in general.

It is further recommended that the new discovered psychological cohesion be further investigated using other psychological-related disposition constructs, more especially in the Brics group countries and the African continent, in general.

Finally, further studies can be explored to study team cohesion enhancement practices for a global multi-cultural virtual team operating from different countries with different time zones. Technological advancement, such as the availability of internet and e-mails, has made it possible for companies to allocate and establish working functional team across international boundaries.

6.5 EVALUATION OF THE RESEARCH

6.5.1 Contribution at a theoretical level

The findings of the study have provided new insight into how the individual's contingencies of the self-worth domains, personality preferences and conflict resolution styles relate to the team cohesion-related disposition of cohesiveness and engaged. The literature review outlined the importance of considering these psychological and social psychological constructs in the design of team cohesion enhancement practices. The approach followed by the current study was unique and

innovative by integrating these constructs to formulate a hypothetical psycho-social team enhancement cohesion model.

Consulting Psychologists and Industrial and Organisational Psychologists are in a position to help organisations understand the relationship of the psychological disposition constructs (self-worth and personality preferences) and the social psychological disposition construct of the conflict resolution styles to foster and enhance team cohesion, through the involvement of Line managers, Human resources practitioners, Occupational social workers that are all able to facilitate teamwork development processes and team building activities, which are crucial business interventions.

It is recommended that the insights obtained from the findings, especially the theoretical psycho-social team cohesion model and its related psychological and sociological elements, be used for teamwork intervention strategies in the South African financial context, more especially, by Occupational social workers who are employed, amongst other responsibilities, to facilitate teamwork processes.

This research study contributed to the existing Industrial and Organisational Psychology behaviour literature, through an increased insight into how the organisational context, composition and processes influence team cohesion. Based on the literature, a theoretical psycho-social team cohesion model constructed was aligned and congruent to the Robbins and Judge (2016) team effectiveness model. The model supported the existing theory that three factors, namely, context (condition), composition and processes need to be considered for team effectiveness (Robbins & Judge, 2016).

In a nutshell, team cohesion is paradoxical, because it is achieved after chaos in Tuchman's (1965) team work stage called the storming phase. Team cohesiveness and engagement are preceded by interpersonal chaos. Consequently, it is the view of the researcher that team cohesion is a complex psycho-social process of disruptive construction. It is like the evaporation of a thick fog which obstructs visibility during sunrise.

Figures: 6.1 and 6.2 below graphically depict the highlighted (in yellow) significant congruence between Robbins and Judge's (2016) team effectiveness model theoretical framework and the constructed psycho-social model theoretical framework

for team cohesion. Both models are based on the system's approach perspective. This is evident and supported in Figure: 5.3 - SEM goodness fit statistical model indices.

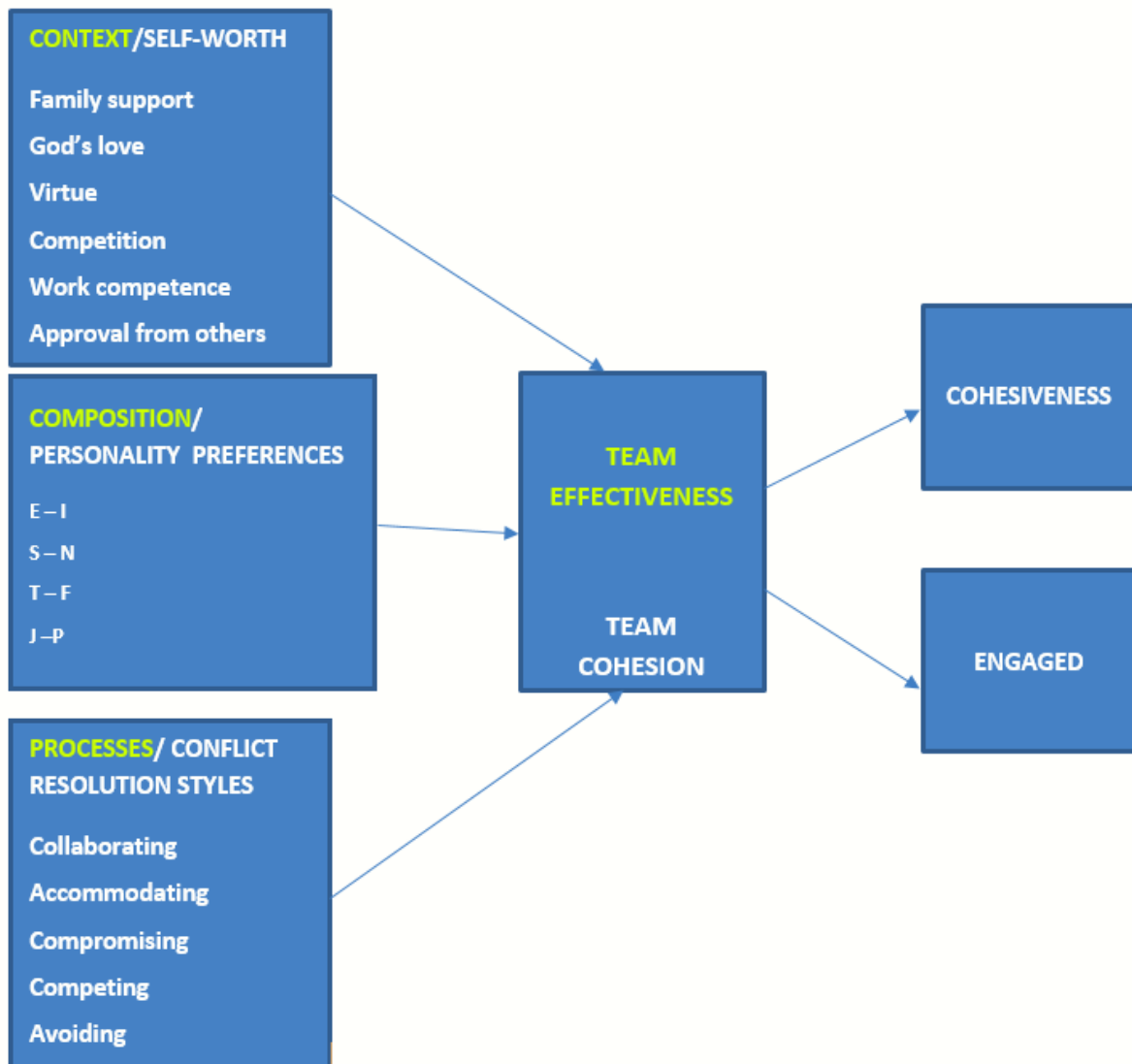


Figure: 6.1
Constructed psycho-social model for team cohesion

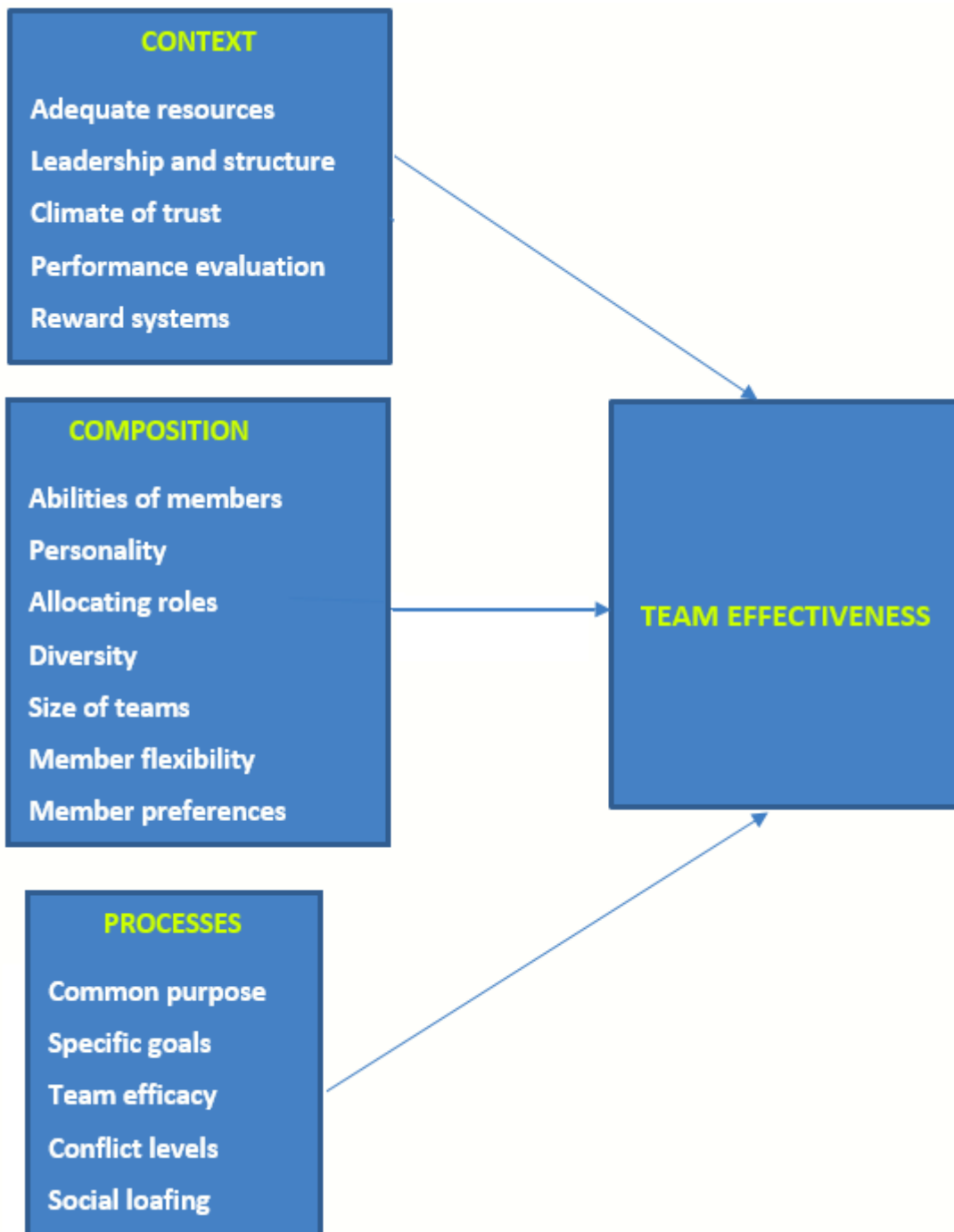


Figure: 6.2
 Team effectiveness model
 Source: Robbins & Judge (2016)

Furthermore, on the theoretical level, after an intensive literature review had been done, the current study substantially contributed to the body of knowledge by adding 'psychological cohesion' to the historical development of the definition of the team cohesion construct. The literature review about team cohesion had moved from social

and task cohesion to include psychological cohesion as measured by the contingencies self-worth scale (see Figure: 6.4 below)

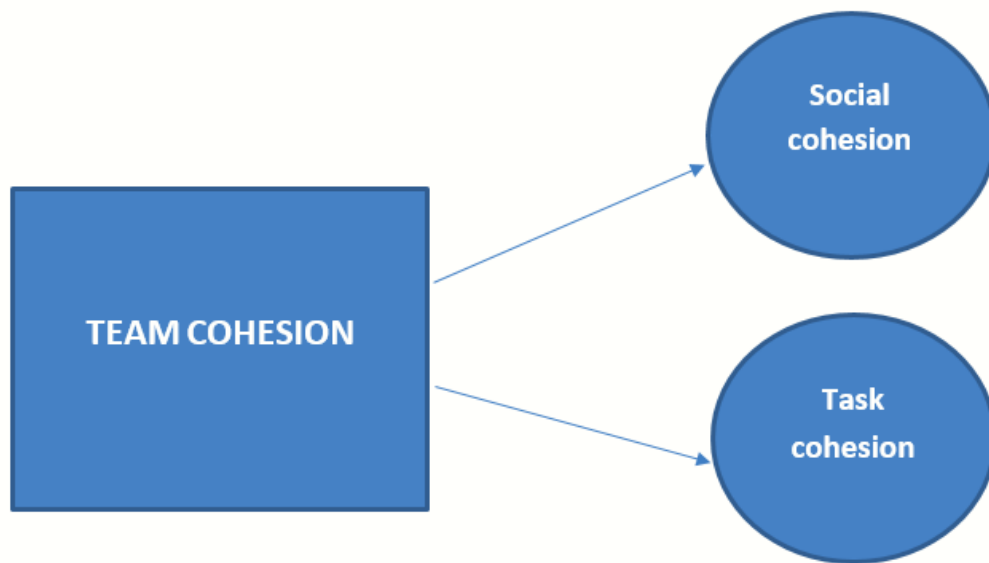


Figure: 6.3
Current theoretical definition of team cohesion construct

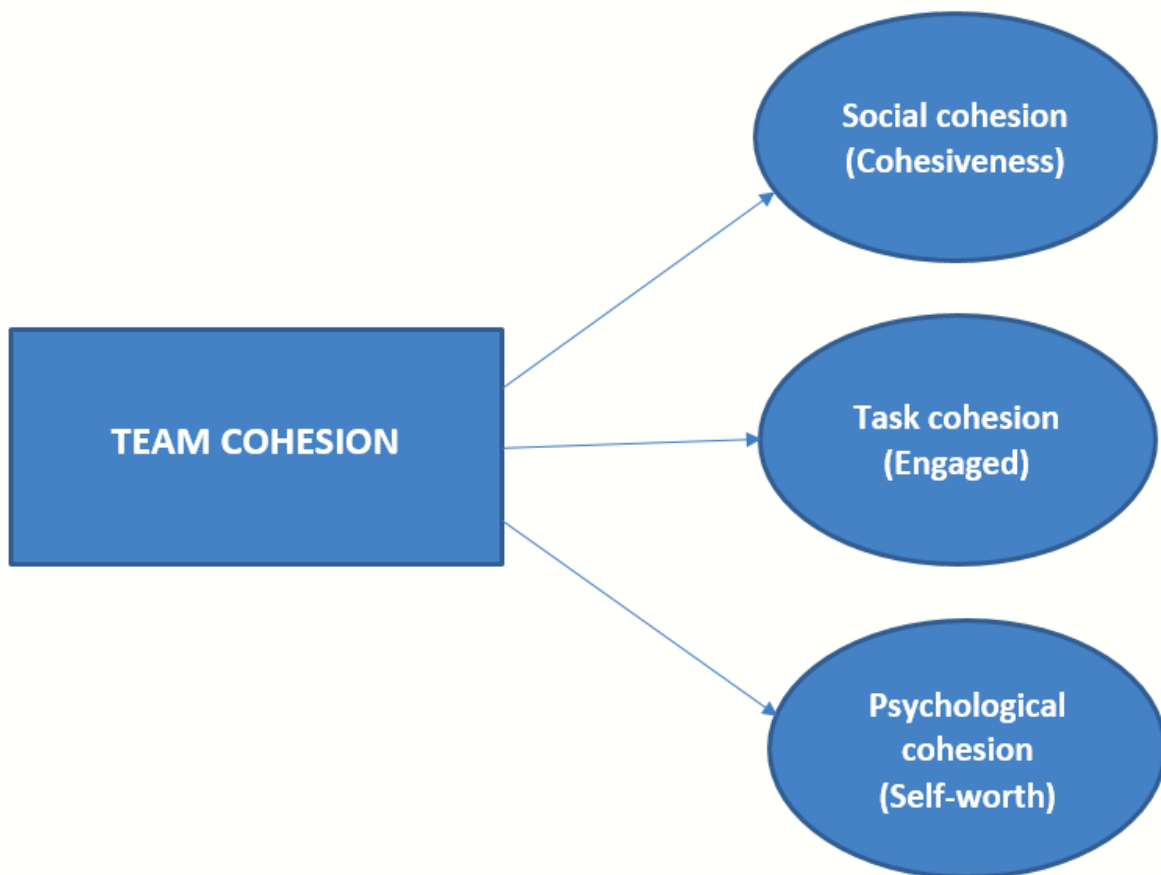


Figure: 6.4
The new development of the definition of team cohesion

6.5.2 Contribution at an empirical level

On an empirical level, the research study provided useful insights into firstly, the inter-relationships found between a set of psycho-social variables (self-worth, personality preferences and conflict resolution styles), secondly, the relationship found between the psycho-social attribute variables and team cohesion, and thirdly, individual socio-biographical characteristics (age, race, qualifications and tenure) as moderators of the relationship between the psycho-social attribute variables and the team cohesion canonical variate constructs. The findings are useful in Consulting Psychology, Industrial and Organisational Psychology and human resource practitioners in understanding which psycho-social and socio-biographical variables play a role in the establishment of team cohesion. The results are valuable in constructing a team cohesion model that can be used in team processes within an organisational context.

The empirical study provided statistically positive and significant support for the study. The findings therefore suggest that a relationship does exist between individuals' psycho-social attributes (self-worth, personality preferences and conflict resolution styles) and the team cohesion sub-scales, namely, cohesiveness and engaged.

6.5.3 Contribution at a practical level

On the practical level, the research study established that individuals from different age groups, race groups, educational levels and tenure differ in terms of their psycho-social variables (self-worth, personality preferences and conflict resolution styles) directly relating to team cohesion. Considering the current financial organisational context, which is characterised by cultural and generational diversity, strongly based on its 127 years of historical mergers and acquisitions, and based on six values, namely, teamwork, accountability, diversity, excellence, innovation and integrity. The results may be valuable in team establishment, fostering, enhancement and relational processes.

This thesis has achieved a realisation of the importance of how psycho-social attributes foster and enhance team cohesion. The findings of the research study provide useful insight into future research for preventing and discouraging individual self-image goals in teams. In contrast, efforts should be expanded to promote compassionate goals that increase the individuals' sense of belongingness and team cohesion. The research results contribute significantly to the body of knowledge

relating to the factors and attributes that enhance team cohesion in the South African financial organisational context.

Finally, this research is original as it has traversed new ground. Previous research studies focused mainly on organisational outcomes based on the result of team cohesion. The team cohesion definition was delineated as social cohesion and task cohesion. The significant contribution to the body of knowledge to the fields of Consulting psychology and Industrial organisational psychology is broadening of the definition of team cohesion to incorporate psychological attributes, and not only the social and task attributes.

6.6 CHAPTER SUMMARY

This chapter discussed the conclusions and limitations of the research study and made recommendations pertaining to future practice and further research. The limitations of the research study regarding both the theoretical and empirical study were presented. Possible recommendations for future study were discussed. Lastly, an integration of the research study was provided, which emphasised the extent to which the results were used to construct a psycho-social model to enhance team cohesion in the South African financial organisation.

In this chapter, the final research aim (5) was achieved, namely to formulate conclusions based on the findings, and make recommendations for Consulting Psychology, Industrial and Organisational Psychology, human resources practice and the broader social sciences field, and for possible future research based on the findings of this research project. This concludes the research study project.

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APPENDIX A: ETHICAL CLEARANCE CERTIFICATE



CEMS/IOP RESEARCH ETHICS REVIEW COMMITTEE

Date: 8 December 2014

Ref #: **2014/CEMS/IOP/028**
Name of applicant: Mochabo Moerane
Student #: **5593026**
Staff #: N/A

Dear Mochabo Moerane

Decision: Ethics Approval

Name: Mr Mochabo Moerane
Address: P.O.Box 30874
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1684
E-mail: mochabom@mweb.co.za/moeraem@unisa.ac.za
Tel: +27 83 326 2212

Supervisor: Prof A M G Schreuder **Co-supervisor:** N/A

Proposal: Constructing a psycho-social model for team cohesion at a Financial institution.

Qualification: Postgraduate degree/Non-degree output/Commissioned research

Thank you for the application for research ethics clearance by the **CEMS/IOP** Research Ethics Review Committee for the above mentioned research. Final approval is granted.

The application was reviewed in compliance with the Unisa Policy on Research Ethics by the CEMS/IOP ethics committee on 4 December 2014.

The proposed research may now commence with the proviso that:

- 1) The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.*
- 2) Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the CEMS/IOP Ethics Review Committee. An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.*



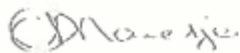
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3) *The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.*

Note:

The reference number: 2014_CEMS/IOP_028 should be clearly indicated on all forms of communication [e.g. Webmail, E-mail messages, letters] with the intended research participants, as well as with the CEMS/IOP RERC.

Kind regards,



Dr O Ledimo

Chair: IOP Research Ethics Committee

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APPENDIX B: DECLARATION OF PROFESSIONAL EDIT



Retha Burger
S.A.(H.E.D.)

tel: 012 807 3864
cell : 083 653 5255

fax: 012 807 3864
e-mail : retha@skillnet.co.za

Independent Skills Development Facilitator

Dear Mr Moerane

This letter is to record that I have completed a language edit of your PhD thesis entitled "Constructing a psycho-social model for team cohesion at a financial institution".

The edit that I carried out included the following:

- Spelling
- Grammar
- Vocabulary
- Punctuation
- Pronoun matches
- Word usage
- Sentence structure
- Correct acronyms (matching your supplied list)
- Formatting
- Captions and labels for figures and tables
- Spot checking of ten in-text references

The edit that I carried out excluded the following:

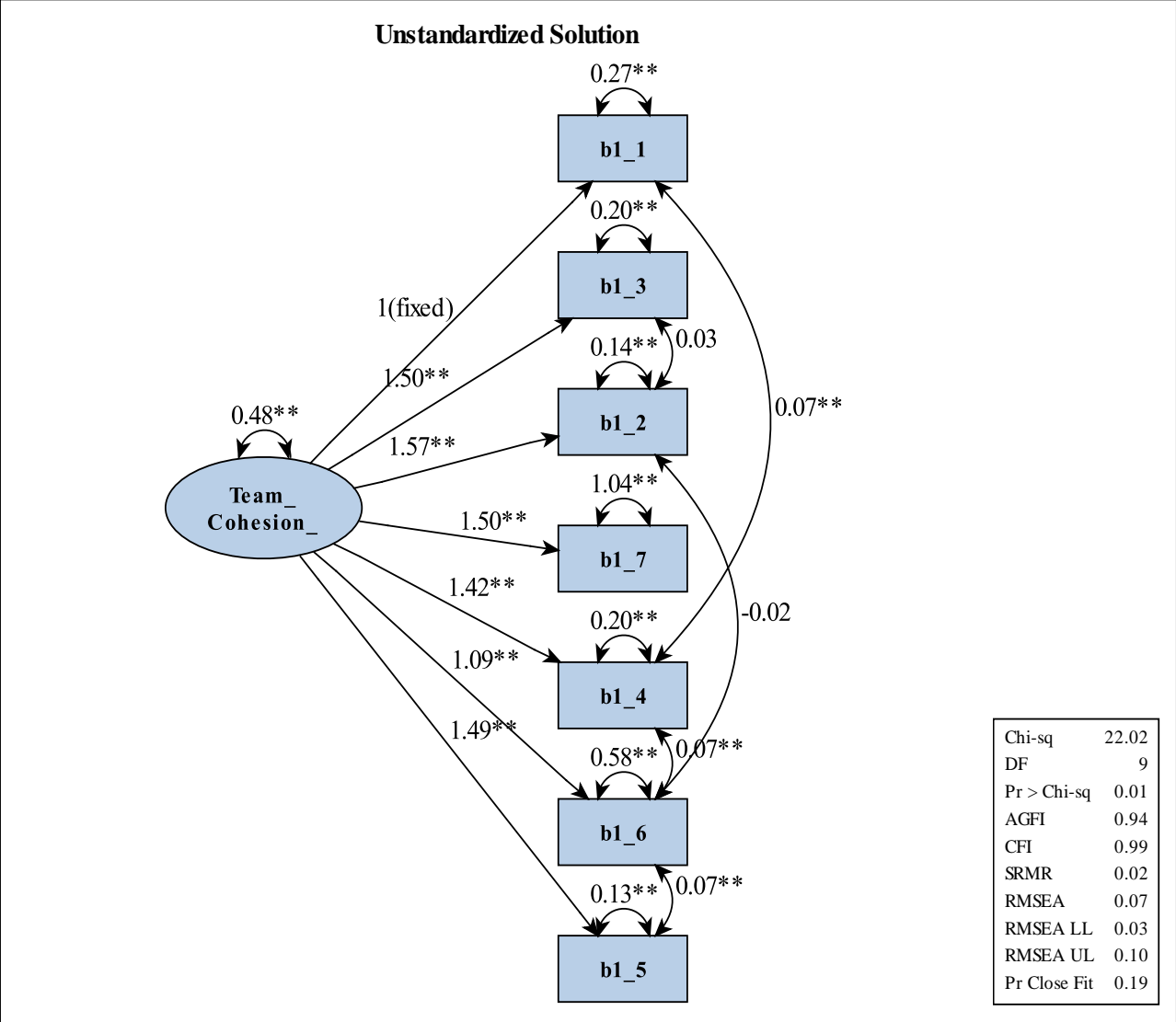
- Content
- Correctness or truth of information (unless obvious)
- Correctness/spelling of specific technical terms and words (unless obvious)
- Correctness/spelling of unfamiliar names and proper nouns (unless obvious)
- Correctness of specific formulae or symbols, or illustrations.

Yours sincerely

Retha Burger

17 July 2018

APPENDIX C: TEAM-COHESION MODEL 3: ADJUSTED GOODNESS OF FIT INDEX



The CALIS Procedure

Covariance Structure Analysis: Maximum Likelihood Estimation

APPENDIX D: SELF-WORTH STANDARDISED PATH RESULTS

Standardised Results for PATH List						
Path			Parameter	Estimate	Standard Error	t Value
Self_Worth_	==>	Family Support		0.86	0.02258	37.79395
Self_Worth_	==>	Work Competence	_Parm01	0.84	0.02519	34.10496
Self_Worth_	==>	Virtue	_Parm02	0.81	0.03592	20.22355
Self_Worth_	==>	Approval	_Parm03	0.81	0.04427	14.07263
Self_Worth_	==>	God Love	_Parm04	0.95	0.02879	28.96889
Self_Worth_	==>	Competition	_Parm05	0.94	0.05166	7.84313
Self_Worth_	==>	Appearance	_Parm06	0.79	0.06105	1.64070

APPENDIX E: OVERALL CANONICAL REDUNDANCY ANALYSIS RESULTS

Raw Variance of the Set 1 Variables Explained by					
Canonical Variable Number	Their Own Canonical Variables		Canonical R-Square	The Opposite Canonical Variables	
	Proportion	Cumulative Proportion		Proportion	Cumulative Proportion
1	0.9313	0.9313	1.0000	0.9313	0.9313
2	0.0687	1.0000	0.1345	0.0092	0.9405

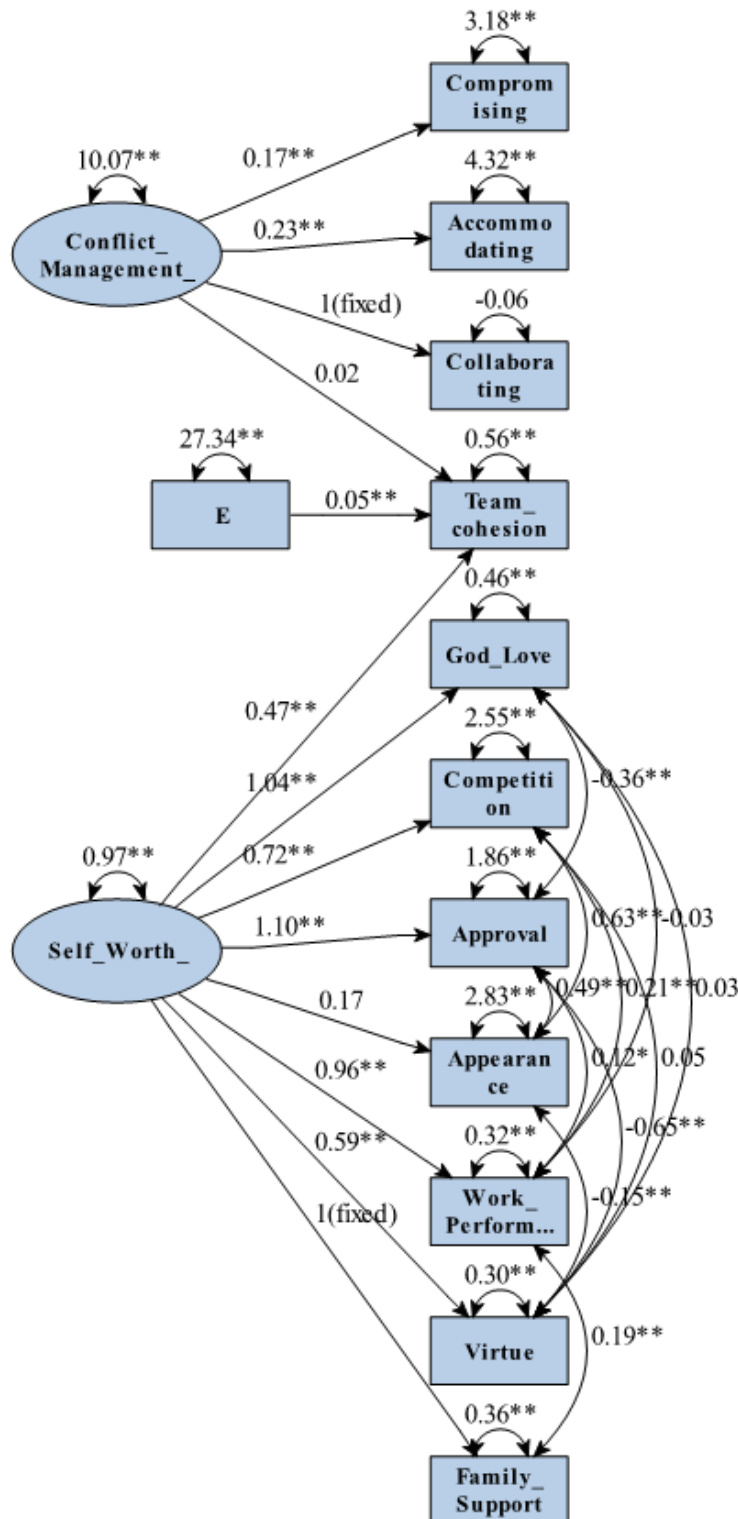
Raw Variance of the Set 2 Variables Explained by					
Canonical Variable Number	Their Own Canonical Variables		Canonical R-Square	The Opposite Canonical Variables	
	Proportion	Cumulative Proportion		Proportion	Cumulative Proportion
1	0.1075	0.1075	1.0000	0.1075	0.1075
2	0.0276	0.1352	0.1345	0.0037	0.1112

APPENDIX F: CFA – TEAM-COHESION MODEL 1

The CALIS procedure

Co-variance Structure Analysis: Maximum Likelihood Estimation

Unstandardised Solution



Chi-sq	138.30
DF	39
Pr > Chi-sq	<.0001
AGFI	0.87
CFI	0.94
SRMR	0.07
RMSEA	0.09
RMSEA LL	0.08
RMSEA UL	0.11
Pr Close Fit	<.0001

APPENDIX G: CFA – TEAM-COHESION MODEL 2

