
The Existence and Form of Social Networks in Organisations.

By

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ABSTRACT



The concept of social networks has emerged as a new direction in the theory of organisational behaviour. Informal networks are widely understood to contribute to innovation, collaboration and learning in organisations. Competitive advantage, or social capital from social networks, can greatly aid an organisation in the business environment. The purpose of this research project was to establish whether and in what form social networks existed in South African organisations.

Based on the literature review three research questions were developed. In this quantitative research project surveys were conducted in various companies using paper questionnaires. Eighty respondents reported on five of their own contacts providing a contact profile batch of 400 people. Equal numbers of people of different race and gender completed the questionnaire. Descriptive and comparative statistics were used to analyse the data.

Importantly the results showed that almost half of the employees felt excluded from social network participation in their companies. Homophily was identified as a strong divider that caused race based networking. Gender was found to be not so strong a divisive factor as anticipated. Despite an abundance of networking biases, a diverse network-context knowledge sharing model was developed.

DECLARATION



I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University.

Sophia Maria Zaaiman

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- My husband, Ben, for painting the sky for me.
- My son, Thomas, for giving me wings and keeping me earthed.
- My family and friends, for patience and understanding.
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LIST OF ABBREVIATIONS

CASE	Context Appropriate Support Exchange
IST	Independent Sample Test
MBA	Masters of Business Administration
SNA	Social Network Analysis
USA	United States of America



1. CHAPTER 1: INTRODUCTION PROBLEM

1.1. Introduction

Recognition has been building of the crucial role effective social networks play in developing and executing strategy (Cross, Borgatti and Parker, 2002). However a danger exist that group affiliations may impede the formation of effective and pervasive social networks. The purpose of this study is to examine both the existence and form of social networks in the diverse South African landscape.

People and the dynamics between them have become pivotal in organisations. An unwritten loyalty contract alone, between the employee and organisation (Robbins, 2005), is not enough to ensure workforce commitment and agility (Breu, Hemingway and Strathern, 2001).

Relationships, now included in definitions of company resources, are seen as capable of enhancing or limiting an organisation's ability to be adaptable (Beinhocker, 2006). Despite the increase in complexity and efficiency of professional work, relationships enable productive professionals to augment the competitiveness of corporations (Bryan and Joyce, 2005).

Relationships can be organised formally and informally. Formal hierarchies may not have the cohesive effect needed for collaboration. Informal relationships may, on the other hand, have the potential to improve group synergy and cooperation. Cross *et al* (2002) explain that coordination and work in companies increasingly occur through networks of relationships, associations which are

informal in nature. They are be informal networks, also called social networks.

1.2. South Africa

Over the past 10 to 15 years a new demographic workforce pattern has emerged in South Africa. Institutional “apartheid” ensured a predominantly White workforce until it started to change during the latter part of the eighties. By 1994 macro-environmental changes altered the global economic landscape. Since then the South African economy became increasingly exposed to global economic movements and pressures. Trade liberalisation has increased already intensified competition and has affected, together with advances in technology and transformation, the way of doing business – or even surviving in the economy.

Transformation and more specifically making institutions more representative of the actual South African population became part of the changing environment. Legislation like the Employment Equity Act and Broad-Based Black empowerment were enacted to assist in speeding up the process of transformation (Alexander, 2005). At the moment South Africa is in the midst of the largest affirmative action programme in the world (Cohen, 2006). It is a core African National Congress (ANC) aim to create a racially representative workplace where about 80% of upper management has to be Black. At the moment 65% of this group is still White. Resistance to forced transformation is a distinct possibility making the integration of racial and gender groupings extremely difficult.

Despite regulation, managing talent remains a complex exercise.

Managing the shortage of talent is imperative as companies excelling at managing their talent deliver better results for their shareholders (Axelrod, Handfield-Jones and Welsh, 2001).

Under these circumstances South African organisations must remain agile, adaptive and innovative. Relationships between employees may enhance the process or stand in its way. Creating cohesive relationships can be restrained by a lack of trust among employees since successful relationships feed on trust and reciprocity and perceptions of unfairness may impact negatively upon them. With corrective regulation as a backdrop perceptions of trust and trustworthiness may differ widely between racial groupings. An example of a perception with the capacity to harm trust relationships between races is that Whites are harmed by affirmative action while the actual percentage representation of different racial groups in employment has been adjusted very slightly despite corrective action (Makgetla, 2006).

A discussion document by the Policy Coordination and Advisory Services (2006) emphasises that social networks are critical in defining the potential that individuals may have in gaining access to opportunities. The correct understanding and application of social networks may play a vital role in this regard.

1.3. Motivation for Research

Several questions arise: Could a lack of integration between the races be disruptive to organisational success? Would better integration improve results



achieved by comp: orks operating in South African companies and what do they look like?

Research on social networks show them to be conducive to collaboration, integration and innovation under the right circumstances and in the right context (Cross, *et al.*, 2002). According to Kristiansen (2004) some groups are more effective than others in raising levels of motivation, ideas, information, social capital and trust through high quality social networks. It is however possible to use high levels of social capital resulting from effective social networks to the detriment of some individuals not forming part of the network (Snyder, 2002).

South Africa has a multiplicity of cultures. Are there differences in networking between the many different cultures? In the South African milieu strong exclusionary social networks may contribute to superficial segregation or be an impediment to integration (Policy Coordination and Advisory Services, 2006). Regulations intending to correct past imbalances in employment can have an impact on trust and relationships in organisations.

Research done by Mtizira-Nondo in 1997 indicates that Blacks mainly network among themselves, which raises further questions: Is this still the case after nine years? Are Black Africans the least networked of all the racial groups as the Policy Coordination and Advisory Services states? Are existing strong network ties within companies having an exclusionary effect? Have new strong networks replaced previous ones?

The current research is concerned with the nature and extent of social networks in South African companies. The intention is to gain a better understanding of the possible value of informal networks to organisations and to determine if South Africa has exclusionary social networks in formal business. The focus will be on the form of social networks in general and the differences in networking behaviour between Whites (still the predominant group in terms of numbers employed in White collar positions) and Blacks (including Coloured and Indian people).

1.4. The Aims of the Research

In the past ten years organisations have become delayered and more horizontal management structures have been adopted, which offer a new set of management actions including more teamwork, less bureaucracy and better communication (Powell, 2002). Work coordination is supported by informal networks, which in appearance is different from prescribed institutional networks and can have significant performance implications via social capital at personal, team and organisational levels (Cross, *et al.*, 2002). Social networks can therefore be a crucial tool to get relationships in an organisation working more effectively.

The research aims therefore are to establish:

- whether social networks are operating in South African organisations;
- if there are, which characteristics they have;
- whether these networks are differentiated along racial and gender lines; and
- whether these networks are accessible to all employees.



Improving the success of companies have significant results, of which the most important would be developing the economy with reinforcing ripple effects on job creation, education and poverty. It is therefore in the interests of South Africa that companies derive benefits from positive collaboration. As shown, social networks have the potential power to contribute significantly towards greater integration and knowledge-sharing in companies, which in turn may affect the ultimate success of organisations.

1.5. Focus on Social Networks

South African companies also experience strategic disconnects, overburdened employees, bottlenecks in the distribution of information and other breakdowns in communication. Social networks offer a dynamic way of leveraging relationships to assist an organisation in shedding its limiting bureaucratic costumes and to do something that enables innovative, adaptive and cost efficient movement (Cummings and Worley, 2005).

Networks consist of individuals and the connections between them where benefits accrue because of the make-up, manner and intensity of connections. Different types of networks can be observed of which advice networks, trust and communication networks are but a few (Krackhardt and Hanson, 1993). The results of the set of connections are influenced by specific role players (Cross and Prusak, 2002), the number of relations, strength of the ties (Granovetter, 1973), demographic composition of the members, trust and the motivation for networking which are discussed in the literature review following this section. Social networks can be leveraged to integrate people and cause the resultant innovation (Cross and Parker, 2004).



2. CHAPTER 2: LI

It is more than thirty years since Becker (1974) in a seminal article on the economics of social interactions in which he extended modern economic theory to aspects of human behaviour. Social interactions have economic value. Individuals are concerned with the return on investment in terms of their behaviour, which they can optimise by changing their conduct. Benefits from relations not only accrue to the participants of interaction but also to the entity in which or for which the group functions. Burt (2000) calls it a competitive advantage known as social capital amplified by network mechanisms. According to him this may be the difference between good-and bad-performing companies and individuals.

The theory examined hereunder elucidates constructs present in the research problem and specifically emphasises their linkages to social networks (Welman and Kruger, 2001). The theory and resulting research findings explain the existence and context of shown constructs in the South African business environment.

The chapter is laid out as follows:

- An explanation of the concept of social networks.
- A discussion of the make-up of social networks.
- The examination of other issues relevant to informal networks.
- An argument that networking is important and the reasons for it.
- The highlighting of differences between social networks and personal networks.

- An introduction to
- A review of the relevance of networks for South African companies.

2.1. Defining Social Networks

Social networks, also called informal networks, can be described as a complex set of personal or professional connections between individuals. These connections form a pattern which is discernable in communities, organisations, societies and nations (Putnam, 2000). Each network is established through a process of construction and continually changes over time by adding, breaking, forming or deleting ties (Bidart, 2005). A personal social network will have one person as focal point whereas group social networks show relationships between a number of people. Networks can exist in many contexts of which religion, civic groups and organisations are but a few (Putnam, 2000). Informal networks, i.e. networks thriving on the unplanned interconnectedness of people, rely on support of the members for each other and the reciprocity of specific support. For years the social capital engendered by successful informal networks have been used to promote effective collaboration within groups, to support junctures in networks and to ensure integration within groups after strategic change initiatives (Cross, *et al.*, 2002).

2.2. Elements of Social Networks

2.2.1. Social Capital

Social capital is a very important concept linked to social networks. Social capital refers to the effect of social relationships. The effect or result accumulates. It requires an initial investment and regular maintenance and may

not be exhausted by use (Grootaert and Van Bastelaer, 2002).

According to Putnam (2000) the crux of social capital theory is that social networks have value and that social capital can impinge on the productivity of individuals and groups. Key concepts enshrined therein are reciprocity and trustworthiness. Adam and Rončević (2005) refer to the subtle change from Bourdieu's definition of social capital to that of Coleman. Bourdieu (2005) defines social capital with reference to the membership of a group which entitles the members to benefit from collectively owned capital. This capital encompasses resources (actual or potential) associated with a resilient well-established system of relationships and associations of mutual recognition i.e. through economic infrastructure (Kovalainen, 2004). Coleman (2005) focuses on the actions of players within the network which facilitate accomplishments not achievable in the absence of the social network – a viewpoint intimating the outcomes possible for organisations where social networks operate. He considers the negotiation of contracts between individuals as a primary cause of the manifestation of social capital (Kovalainen, 2004).

A more general definition of social capital by Grootaert and Van Bastelaer (2002) alludes to institutions, relationships, attitudes and values that preside over interactions among people and contribute to economic and social development. In the presence of effective social connections among people formal, strict arrangements may be relaxed – social pressure may contribute to the enforcement of agreements. Social capital is also context dependent (Sabatini, 2006), which can be used to further the dissemination of information

while at the same costs of the dispersed knowledge. Informal networks increase communication over time and cement relationships (Krackhardt and Hanson, 1993).

Linking social capital i.e. connections linking people within organisations has a positive effect on labour productivity, economic performance and human development. Putnam (2000) explains that associated norms of mutual support may benefit the members of the network but could have negative external effects if, for example, directed towards malevolent, antisocial purposes.

2.2.2. Types of Social Networks

Social networks emerge in two main forms: informal personal networks and informal group networks. A personal network bears the marks of the individual's community, social characteristics and history and may also reflect personal strategies followed and directions planned by the individual (Bidart, 2005).

An individual can participate in both forms of networking and occupy different roles in different networks. The individual may, for example, be relied on for advice but may not really be included in the trust circle (Krackhardt and Hanson, 1993).

Various researchers have identified different types of networks. Cross, Liedtka and Weiss (2005) categorise three kinds which consistently deliver unique value propositions:

- Customised response: refers to situations where problems and solutions are ambiguous. They are most useful where expertise is needed to define a



problem swiftly at responses. Examples are consulting firms and new-product development teams.

- Modular response: although the components of a problem and the solution are known, the optimal combination of those components is not yet known. Value is delivered through the assemblage of expertise required. Examples are law firms and surgical teams.
- Routine response: refers to networks operating in circumstances where work is less ambiguous, more predictable and well-defined. Value is added through speed and efficiency of response to a recurring set of problems. Examples are call centres and insurance claim offices.

Krackhardt and Hanson (1993) indicate three types present in companies:

- Advice networks where prominent players solve problems and provide technical information.
- Trust networks where members share sensitive political information and support each other in crises.
- Communication networks where discourse often relates to work matters.

The network structure of social capital occurs in three kinds of networks: clique or security networks (dense, lack of social capital and poor manager performance), entrepreneurial networks (a network with which to build social capital as it is associated with more creativity and innovation) and hierarchical networks (borrows social capital, second-hand information benefits, indirect access) (Burt, 2000). Entrepreneurial networks assist hugely where there is task uncertainty as there are more divides in those networks to be bridged (Burt, 2000). Other researchers refer to networks displaying a combination of these

and other characteri mutations of the identified categories. Burt (2000) argues though that the optimal network structure is one where there is a close-by network of overlapping ties that foster trust and reciprocity combined with a more distant network of diverse ties that will provide one with non-redundant heterogeneous information.

2.2.3. Role Players in Social Networks

Cross and Prusak (2002) state that key role-players typically found in informal networks are: Central Connectors – linking most people in the network (similar to what Stephenson (2004) labels as “hubs”), Boundary Spanners – connecting different networks to each other (termed “gatekeepers” by Stephenson (2004)); Information Brokers – keeps subgroups in networks together; and Peripheral Specialists – providing specialist expertise to all in network (akin to “pulse takers” in the Stephenson framework).

2.2.4. Appearance of Social Networks

Informal networks vary in terms of the number of relationships contained in them, the strength of ties present, their variety and diversity and network dynamics (Kristiansen, 2004). Cross and Prusak (2002) show that four dimensions influence the effectiveness of social network connections for managers:

- The extent to which they seek out people within or outside their functional areas,
- The extent to which hierarchy, tenure and location matter to the social relationships of the manager,
- The length of time the manager has known the connections,



- The extent to which the result of ad hoc connections/meetings in hallway (i.e. unplanned or planned meetings).

2.2.5. Number of Relationships

It is debatable if one person alone can frequently interact with more than several hundred people. Maintaining relationships in extremely large networks may be constrained. Research done by Hill and Dunbar (2002) on the number of Christmas cards sent out by individuals shows that the maximum network size averages about 150 members. Depending on the size of the organisation, networks may well have fewer members.

The size of a personal network will depend on the individual and the type of relationships involved. Individuals may also have a limit in terms of the amount of information that can be internalised which will be influenced by the number of members in the network, the structure and context of the network, individual capabilities and the properties of the information transfers (López and Sanjuán, 2002). In other words, López and Sanjuán (2002) indicate that a close relationship exists between the structure and the size of a network. Totterdell, Wall, Holman, Diamond and Epitropaki (2004) find that an individual's happiness actually decreases with an increasing network size.

2.2.6. Strength of Ties

A tie refers to the participants in a social network. The strength of the ties is closely related to the depth of emotion, the time invested, intensity of intimacy and the give-and-take of the interactions between ties (Granovetter, 1973). Sabatini (2006) refers to strong family ties (resulting in bonding social capital),

weak informal ties (resulting in bridging social capital) and formal ties connecting people within organisations (resulting in linking social capital). Generally, strong ties refer to closer relationships with family and friends, while weaker ties refer to acquaintances and more distant friends.

The weaker ties require more linkages in a network so as to facilitate information transfer and social cohesion. Stronger, closer ties are more inclined to reinforce a specific closed circle which emphasise local cohesion and can lead to greater overall disintegration (Granovetter, 1973). Hanson (2000) cites research that contests Granovetter's argument of the "strength of weak ties" in that strong ties have more salience than weak ties.

The structure of a network and the content of ties are significant in terms of effectiveness in organisations (Flap and Volker, 2001). Weak ties, which are the ties typically found in organisations, are more conducive to linking between groups than strong ties and bonds with weaker ties are richer in terms of information and diversity of knowledge (Granovetter, 1973). The reason for this is the assumption that friends are more likely to resemble us than acquaintances and, therefore information from friends will closely overlap our own.

The likelihood of members entering or leaving a group is contingent upon the number and strength of social network connections that connect group members to each other and to non-members (Miller, McPherson, Popielarz and



Drobnic, 1992). Mor strength of ties, according
to Granovetter (1973).

2.2.7. The Role of Similarity

Informal or social networks tend to be homogeneous. The reason for this one-dimensionality is the homophily principle – the tendency of people to associate with others similar to them, which cause networks, especially personal social networks, to be predominantly homogeneous (McPherson, Smith-Lovin and Cook, 2001). Homogeneity of networks infers harmony but because their effectiveness depend on their composition (Hanson, 2000) their performance is limited by a narrow range of views, knowledge and experience (Reagans and Zuckerman, 2001). Homophily narrows people's social worlds (McPherson *et al*, 2001) and has the unfortunate result of excess redundancy of information in the network (Hanson, 2000) because of the limited variety of information received, attitudes formed and interactions experienced (McPherson *et al*, 2001).

Networks are not compiled from a random sample of the population which therefore makes the information exchanged biased (Hanson, 2000). Interestingly, groups may have their own patterns of interaction, which does not equate to the sum of individual patterns of interaction – in other words group dynamics may mediate behaviour into a specific group interaction pattern (Mayo and Pastor, 2005).

People with similar jobs more often than not share similar views. Often people working together in the same department also share similar world views (Alderfer, 1987). These shared aims frequently abet interaction.



2.2.8. Gener:

Many researchers extol the virtues of diversity in social networks (Mayo and Pastor, 2005; Hanson, 2000; Reagans and Zuckerman, 2001 and Ibarra, 1993) Despite the reported fact that people find it easier to communicate with others similar to them, diverse networks are seen to arise with more creative and effective solutions, arguably because they are more likely to embrace change (Mayo and Pastor, 2005).

Reagans and Zuckerman (2001) caution that if cohesive teams remain concentrated among homogeneous sets of individuals they will fail to create valuable learning which would be possible among more diverse members. Despite the enhanced productivity by network heterogeneity (Reagans and Zuckerman, 2001) there are however problems that can be experienced in diverse networks.

Mayo and Pastor (2005) state that biases, time spent on conflict resolution, actual time spent with other group members and social divisions could hinder effective group interaction. Generalised perceptions of racial groupings coupled with an exclusionary network may hinder developmental goals (Crewe and Fernando, 2006).

Mayo and Pastor (2005) quote three theoretical perspectives to diversity:

- Professional diversity – tenure and education heterogeneity (cognitive resources);
- Organisational demography; and
- Social identity: age, race, gender.

2.2.9. Race

Racial and ethnic homophily causes the greatest cleavage in personal environments (McPherson, *et al.*, 2001). Exclusionary effects from racially homogeneous networks may work against the assimilation of individuals into informal networks, which suggest that Black employees must develop the same types of interpersonal networks as Whites in order to be successful (Ibarra, 1995). Mayo and Pastor (2005) find that demographic diversity can affect team effectiveness and that benefits from having diverse networks may only be observable under specific conditions.

2.2.10. Gender

Gender can also enhance divisions in personal circumstances along with age, religion, education and occupation (McPherson *et al.*, 2001). Men and women network differently in different situations. Gender is a strong dimension in the business world – women share job-related information predominantly with other women (Hanson, 2000).

Women seem to be more concerned with outcomes of networking, rather than with the characteristics of networking targets (Mtizira-Nondo, 1997). They have more frequent and diverse connections than men (Hanson, 2000). They network intentionally and place more dependence on their networking targets, which suggests that mentoring relationships are more likely to exist than among males (Mtizira-Nondo, 1997). They hold the advantage in the social network, with slightly greater centrality and higher levels of social integration (Moore and Whitt, 2000). They tend to network on a more personal level than men to gain



trust and confidence, and that they feel men naturally enjoy (Mtizira-Nondo, 1997).

Kanter in Van Emmerik (2006) indicates numerical strength of women in work environments as a structural disadvantage which may contribute to the finding that relationships of women are less stable in specifically academia. Ibarra (1993) argues that women have fewer multiplex ties than their male counterparts. Multiplexity, or the existence of ties on more than one level exchanging multiple resources, is important for the creation of soft capital (Van Emmerik, 2006). Soft social capital refers more to the emotional support side of resources and results in friendship and social support (Ibarra, 1993). Hard social capital is created from work-related connections providing job-related resources for possible career results and can give the holder access to challenging assignments (Ibarra, 1993).

Surprisingly, Van Emmerik (2006) indicates that men are more effective than women in using emotional intensity of connections to create hard social capital and surprisingly more effective in using team-related resources for a cooperative climate to create hard and soft capital. Van Emmerick (2006) poses the question whether this contradicts old stereotypes and if women may need more social capital than men.

Moore and Whitt (2000) find some male advantage in the structural network. Men hold most board seats, occupy multiple board seats and have slightly greater network centrality.



Mixed-gender teams communication networks with better group maintenance ratings, which positively influence group effectiveness (Mayo and Pastor, 2005).

2.2.11. Technical Expertise

Diversity in technical expertise and education positively influence team effectiveness (Mayo and Pastor, 2005). The belief is that differences in experience and knowledge stimulate conversation because of the variety in cognitive bases. Project groups need skills and cooperation to be productive. Social capital (seen as knowing people) can assist because only those members who are expected to cooperate will be drawn into the group (Greve and Benassi, 2003).

The specific composition of groups is important and will differ from one another causing resources and information exchanged to differ (Hanson, 2000). Technical expertise, to enhance group effectiveness, can be gathered from individuals inside a network, from individuals not forming part of the network, and those inside the organisation or from other organisations. The unique expertise of outsiders will add to the cognitive resources of networks. Databases and archives supply a fixed, un-evolving array of information. Social capital enables access to a wider set of dynamic sources, while expanding the use of the information to prevent the rehashing of previous errors and uncover opportunities (Greve and Benassi, 2003).



2.2.12. Netwo

Networks are dynamic in the sense that they consist of ties which will continually vary with regard to the duration of membership, when the networks were formed and the network history (Bidart, 2005). Dynamism also suggests recurrent relationship formation and dissolution, as well as uneven information and ideas flowing through the existing network (Kristiansen, 2004). Social capital built through the continual dynamics of network formation is a form of competitive advantage which embraces two matters: a potent technology called network analysis, and performance. Burt (2000) deems social capital to be the result of brokerage across structural holes or spaces between closely bunched communities. The broker gains advantage by linking these holes or in other words, by managing agreements between opposing factions. The context and circumstances of networking determine the members' actions and influence network outcomes (Bidart, 2005). People who are better connected perform better (Burt, 2000). The fit of networks with organisational goals is important (Krackhardt and Hanson, 1993).

2.3. Relevant Issues in Social Networks

2.3.1. Nature of Organisational Structure and Task

Factors moderating the effectiveness of social networks are, for example, formal structure, work and human resource processes, geographic dispersion, culture and leadership style (Cross, *et al.*, 2002). The design of an organisation can have an intense sway on the pattern of social relationships through physical proximity, the design of the task and the structure (Cross, *et al.*, 2002).

Certain structures r ance in situations where
both the tasks and the required information are evolving. In such circumstances encouraging lateral connection for the effective use of the members' collective intellect may be most successful (Cummings and Cross, 2003). Beardsley, Johnson and Manyika (2006) highlight that multifaceted exchanges of information may be harmed by standardisation or over-emphasised organisational boundaries.

Social capital assists in spontaneous self-organising by depending on informal connections (Greve and Benassi, 2003) which is important for its flexibility in situations where speed of focus on new tasks is crucial. Bureaucratic, hierarchical structures struggle to achieve this. Bureaucracy is a particularly harsh enemy of efforts to share information and encourage innovation (Stephenson, 2004). Cummings and Cross (2003) demonstrate that the incorporation of unique expertise by holistic structures generate improved outcomes in complex, non-routine situations. A *sine qua non* of this situation is an adequate number of connections to allow a sufficient flow of information.

2.3.2. Trust

Social trust is the indispensable condition of a democratic society because it improves commitment to institutions where the aim is to serve common interests (Snyder, 2002). Kleiner (2004) states that trust societies have a huge competitive advantage over legalistic ones as individuals have more opportunities to innovate together under circumstances of trust, which at the same time reduces the time and increases the effectiveness of information sharing. Reciprocity is imperative to the muscle of social networks and can be

used to multiply inc averaging of the network (Stephenson, 2004). Soft social capital requires closeness and trust (Ibarra, 1993).

Trust in social networks centre around the expectation that people will do the expected thing – despite the fact that circumstances may dictate or demand a different course of action (Granovetter, 2005). Uzzi (2005) agrees that trust in networks can have significant benefits in stable situations but cautions that the same trust can hamper adaptation in times when change is required. Some optimal balance therefore between trust and the weakness of ties must be achieved for the relationships to be beneficial under stable and changing conditions. By placing the appropriate people in the right places, organisations can increase the frequency of interaction and ultimate competitiveness where trust plays the role of the vehicle transporting tacit knowledge (Stephenson, 2004).

2.3.3. Electronic Communication

Electronic interaction reshapes relational practices in terms of timing and duration of communication and who one interacts with (Licoppe and Smored, 2005). Relational power is also affected.

2.3.4. Maintaining Personal Networks

Rapid structural changes and organisational change coupled with the increasing uptake of electronic communication methods have forced workers to focus more on the creation and maintenance of personal social networks (Nardi, Whittaker and Schwarz, 2000).



2.4. Reasons for

Companies and individuals have different motivations for networking.

2.4.1. Company Motivation

According to Cross and Parker (2004) some of the reasons organisations apply network analyses are to:

- support partnerships and alliances;
- assess strategy execution;
- improve strategic decision-making in top leadership networks;
- integrate networks across core processes;
- promote innovation;
- ensure integration;
- develop communities of practice;
- identify critical disconnects;
- create energy in the organisation.

2.4.2. Inevitability

Some executives fear the possible influence that social networks might have and perceive them as stumbling blocks in organisations (Cross and Prusak, 2002). Informal networks will, however, form automatically between people. It is therefore counterproductive to try and curtail their operation (Krackhardt and Hanson, 1993). It is preferable to assess what is produced with a Social Network Analysis by identifying the players involved and malfunctioning networks.



2.4.3. Collab

Informal networks add value where collaboration among employees with expertise in diverse fields is needed (Cross, *et al.*, 2002). This refers not only to demographic diversity but also to interaction between individuals with a wide range of skills and experience. Many tasks in an organisation have the desired outcomes only through the combined efforts of various people (Granovetter, 2005).

2.4.4. Information

Social networks influence the quality and flow of information (Granovetter, 2005). Social network participation increases the availability of information while at the same time lowering the cost of the information (Grootaert and Van Bastelaer, 2002). Unhindered access to information and networks, enable employees to employ iterative teamwork to respond to queries and issues (Beardsley, *et al.*, 2006). Tacit knowledge is imperative for the effective functioning of organisations (Granovetter, 2005). It is however difficult to plan the need and use of tacit knowledge in advance. Rigid organisational structures assist where recurring procedures are important but tacit knowledge thrives in improvisational circumstances. Informal networks make the application of tacit knowledge and quick, efficient and innovative communication possible (Beardsley, *et al.*, 2006).

2.4.5. Flexibility and Innovation

Networks can improve internal communications and be a source of innovation (Stephenson, 2004). In order to boost innovation a company must make more frequent innovative interactions possible by creating the environment for them



(Beardsley, *et al.*, it is probably the actor linking various networks that is best placed to innovate. Informal networks often encourage organisational flexibility, innovation and efficiency by combining distinctive competencies (Cross, *et al.*, 2002). Formal organisational design allows for dealing with anticipated problems. Informal networks ensue where a formal structure falls short, enabling the organisation to deal with unanticipated problems (Krackhardt and Hanson, 1993).

2.4.6. Intervention

Performing a social network analysis can make managers aware of the role social networks play in performance effectiveness and where and who the actors in a group are. Managers will then be able to intervene to change or allocate decision-making rights and try to influence informational domains so as to glean maximum benefit from the networks (Cross, *et al.*, 2002). Stephenson and Lewin (1996) suggest that understanding and managing networks in organisations may be an extremely useful way to strengthen anti-discriminatory programmes to achieve fair employment practices. Unfortunately informal networks can also be an impediment to change by blocking information exchange and encouraging opposition (Krackhardt and Hanson, 1993). The same networks that can ease access and relationships can also restrict access because of limited norms and information in the network (Hanson, 2000). Therefore early identification and analysis can lead to early intervention before patterns become entrenched in the culture of the organisation.

Krackhardt and Hanson (1993) state that the problems that could be identified by Social Network Analysis are for example:



- employees restricted to their department;
- employees communicating only with people in other departments;
- identifying factions;
- narrowing communication with few groups or divisions where communication with more divisions is necessary;
- identifying holes where strategic collaboration should exist;
- identifying where one employee is overloaded (i.e. where many employees depend on the person who may have enormous power and control. If that person leaves, a network can collapse);
- cultivating the right mix of relationships; and
- anticipating reactions to change by constructing network maps.

2.4.7. Performance

Informal networks have the energy to sidestep formal reporting channels and to elicit extraordinary performance (Krackhardt and Hanson, 1993). Social relations play a definitive role in productivity and positioning in social networks plays a part in the further generation of productivity. Sabatini (2006) finds that linking social capital (more distant connections than family and friends) with voluntary networks has a positive influence on labour productivity, economic performance and human development.

2.4.8. Turnover

Given the higher employee turnover situation in modern organisations, it is imperative to gain effectiveness and performance outcomes from social network analysis as soon as possible, in other words, to make employees more

productive as quick ?). Mitchell, Holtom, Lee, Sablinski and Erez (2001) suggest a construct called “job embeddedness” which employers can increase or decrease in order to influence the inclination of an employee to stay or to leave a job. This new construct embodies three themes:

- Links, which refer to connections between a person and institutions or other people.
- Fit, which refers to person-organisation and person-environment suitability.
- Sacrifice, which refers to material and psychological costs suffered by the employee when leaving a specific job.

Miller, *et al.*, (1992) posit that the more contacts there are in a group the longer the membership will be, which has implications for turnover in companies. Feeley and Barnett (1997) show that it is likely that an employee situated on the fringes of a social network will leave the organisation. Turnover rates are lower for those employees that enter a company through pre-existing networks (Granovetter, 2005). A key reason quoted by minorities (women and Black people) for leaving an organisation is exclusion from key networks and information flows (Stephenson and Lewin, 1996).

2.4.9. Other Reasons

Healthy informal networks can also impact on strategy execution, product development and job satisfaction even though commitment to the company as a whole may be lower (Cross, Nohria and Parker, 2002). Stephenson and Lewin (1996) agree that people participating in key organisational networks and information flows seem to be more successful in and committed to their

organisations. It is important to understand the nature, structure, metrics and reward systems as well to enhance the power of networks (Beardsley, *et al.*, 2006). Networks can automatically assist with this process as the effect of reward and punishment increase when meted out by known persons (Granovetter, 2005). People sometimes refrain from certain actions, which could include fraudulent, negative or non-optimal actions, because of the possibility of injunction by colleagues (Granovetter, 2005). Networks can therefore assist in controlling behaviour. These networks must be aligned in terms of structure, content and context to achieve the intended positive effects (Flap and Volker, 2001). Managers will be able to solve problems more effectively if they recognised who the people with power in the networks were and understood how the relationships worked (Krackhardt and Hanson, 1993).

2.4.10. Personal Motivation

Some personal reasons for networking might be (not an exhaustive list):

- to find employment;
- to find more information;
- for support;
- for integration into groups; and
- to aid career prospects.

Flap and Volker (2001) claim, that employees may be more buoyed about instrumental aspects of a job like income, security and career opportunities, through networks of strategic work-related connections. They also find that connections based on identity as part of a closed network may improve

satisfaction with the  influences the social climate and cooperation with others.

Observing network dynamics can assist leaders in understanding people and relationships around them. Newcomers into a company can be integrated much faster if they are already part of a social network operating at the company (Granovetter, 2005). Mtizira-Nondo (1997) finds that the most important reason for networking is for attaining business-related information. It is also a primary means of attaining power. Networks can build on loyalty to professions (Granovetter, 2005).

According to Ibarra (1995) minorities in the United States of America are concerned about the range of their promotion possibilities and career prospects and therefore have unique network development patterns showing their respect for the integration of racial and professional identities in network strategies. Mtizira-Nondo (1997) on the other hand points out that Black people in South Africa predominantly network among themselves even though they indicate that cross-cultural networking is strategic. The perception still exists that Whites exclude Blacks purposefully from their networks, which causes South African Blacks to be less confident to network cross-culturally. Minority managers in the USA have more racially heterogeneous and fewer intimate network relationships. The reason for this may be that the group is represented by small numbers and there are therefore less of a chance to form homophilous groups with similar people (Ibarra, 1995).

2.5. Negative Rel.

The discussion on social networks would be deficient without a look – even though cursory - at negative relationships in organisations. The inherent physical proximity to other people in work relationships makes it difficult to avoid objectionable co-workers. Labianca and Brass (2006) warn that negative relationships in the office can pose a severe threat to an individual's emotional well-being and possibly to the productive functioning of the organisation. If this is the case the identification of the negative relationships becomes all the more important and changes to structure, network, work, task or team, will have to be planned.

2.6. Social Network Analysis as Tool

A Social Network Analysis (SNA) enables the charting and gauging of relationships and flows between people, groups and organisations. People and groups are designated as nodes while links between the nodes indicate flows between the people and groups. An SNA makes a visual and a mathematical analysis of human relationships possible (Kilduff and Tsai, 2003).

There are two broad approaches to the identification of social networks in companies: the comparison between an organogram and the real informal network, and the bird's eye view of a personal network (Cross and Parker, 2004). A Social Network Analysis is therefore a tool for viewing groups of people and networks from an individual's perspective.

Examples of an organizational chart and an actual informal network (Figure 2.2) are shown below.

Figure 2-1 Group organogram

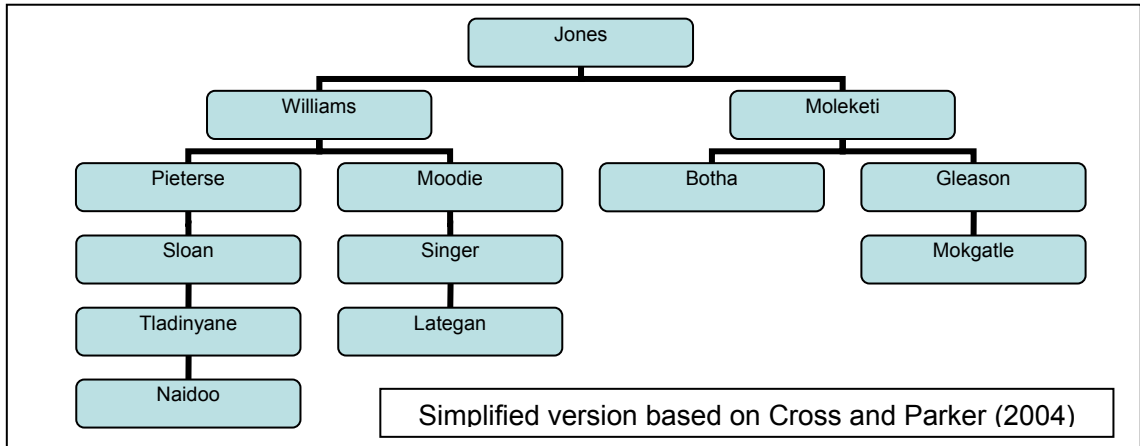
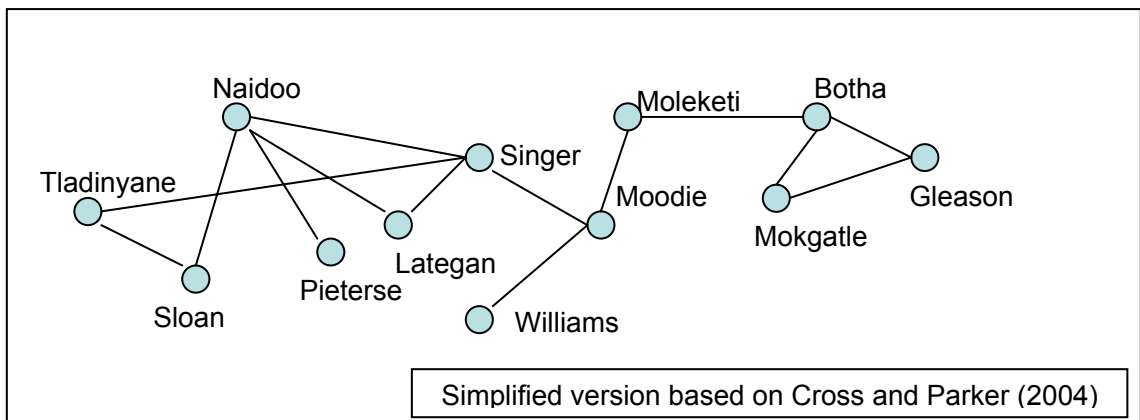
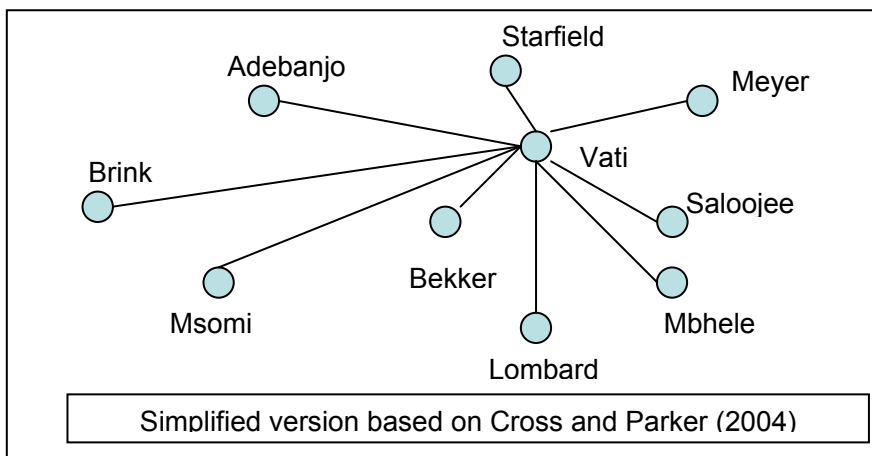


Figure 2-2 Group social network



An example of a personal network (bird's eye view) is shown in Figure 2.3.

Figure 2-3 Personal social network



Research shows that an organisation and to individuals at the same time (Kilduff and Tsai, 2003). Interestingly people with more diverse, entrepreneurial networks are more successful (Cross and Parker, 2004). Cross, *et al.* (2002) add that such networks can help them to find jobs and to obtain resources which could lead to early promotion, career mobility and managerial effectiveness. Cross and Parker (2004) also found important distinguishing marks of people more central to networks – they look for ways to integrate other in their work rather than doing the work on their own and they take care and trouble to network deliberately.

An SNA – the personalised option - will aid in identifying tendencies to bias with regard to socio-demographic, behavioural, and intrapersonal characteristics (McPherson, Smith-Lovin and Cook, 2001). Age, gender and race biases in these personal networks can then be addressed to improve an individual's performance and the overall performance of the company. The reason for this is that a big portion of work done in organisations is supported by the personal contacts of individuals, which can be used to promote connectivity (Cross and Prusak, 2002). These egocentric networks are difficult to measure in size and range, as the network changes continually and is not clearly delineated – members come and go (Yang-chih, 2005).

A Social Network Analysis, as explained, can be done on more than just the interpersonal level. Networks formed between people from different departments, business units, teams and organisations can be measured to indicate if relevant resources are stockpiled or shared (Kilduff and Tsai, 2003). It may even reveal why some units or companies succeed and others fail.

2.7. Relevance to

Rigorous discrimination denied the majority of the South African population opportunities to participate in education and jobs (Human, 1996). Initially it was thought that companies would incorporate more inclusionary practices voluntarily. Voluntary affirmative action was the preferred approach in the USA for about 25 years, but it was not successful. As soon as regulations were added to aid the process, a dramatic turnaround was experienced in the numbers of minorities in business (Blumenrosen, 1985). Only after South African authorities enacted legislation regulating employment diversity, did more South African companies begin employing a more diverse workforce in earnest. Before then, in most cases only employers resisting oppression had a more diverse workforce (Human, 1996). Notwithstanding regulation the situation has only changed marginally. Despite the fact that the majority of the population in the country is Black, Whites still occupy the biggest percentage of managerial and executive positions in South African companies. Although Blacks constituted 75% of employed people in 2004, Whites making up merely 14%, Blacks held only 14% of senior management positions in the private sector (Makgetla, 2006).

Under these circumstances one may imagine that collaboration is perhaps lacking between employees. Johnson-Bailey and Cervero (2004) cite literature to indicate that Black women experience a double form of sexism and racism, a situation worse than White women and Black men. Another difficulty relates to mentoring. Mentoring between Black and White mentors and mentees are complex and can be deemed to be hierarchical which reinforces feelings of authoritarianism and subordinate relationships (Johnson-Bailey and Cervero,

2004). Additionally, workplace can be significantly influenced by the fact that one may be in the minority and feelings of isolation and lack of identification may exist (Ibarra, 1995). Apart from regulation, like affirmative action, which influences numbers other ways need to be found to integrate the workforce better. Stephenson and Lewin (1996) see an opportunity in using network analysis to manage the required increased diversity in companies. Identifying and understanding networks in organisations could be an important step towards augmenting existing non-discriminatory employment practices (Stephenson and Lewin, 1996). Diversity in a company's human resources may contribute valuably to its competitive position while the power of networks is such that behaviour can be brought in line with the intention of affirmative action regulation (Stephenson and Lewin, 1996). The end-states required are optimal integration, collaboration and performance, circumstances which are important on an individual level and an organisational level.

This raises a further question regarding the current situation in terms of social networks in South African companies: Have the playing fields been levelled to a greater extent than nine years ago when Mitizira-Nondo (1997) did his research when he found that race was a prominent issue in networking? Black people were then shown to intend to network cross-culturally but to nevertheless effectively to network predominantly within their own racial groupings.

2.8. Conclusion

The purpose of the literature review was to form an understanding of social network characteristics, to determine influences on the formation and structure

of networks and to participating in informal networks.

The propensity towards homophily in networks is an important issue discussed as part of the literature. Trust and reciprocity is fundamental to the functioning of networks. Social capital as output is shown as the unique competitive advantage generated by successful networks. A SNA comes to the fore as a tool useful for identifying and planning the composition of networks and the required outcomes. Diversity must be incorporated to gain the optimal advantage that networks have to offer which is very relevant to the South African situation.

It is clear from the review that one would not be able to mandate certain social relationships but some writers feel that creating a context within which interactions can flourish will contribute to the direct formation of social networks (Cross, *et al.*, 2002; Cross, *et al.*, 2005). Leaders can create these contexts by aligning work and human resource practices, organisational structure, cultural values and leadership behaviour (Cross, *et al.*, 2005). Stephenson and Lewin (1996) feel that successfully leveraging diversity in the workforce by using a network analysis may provide a much needed competitive advantage. A network analysis can be done frequently and be augmented by compensation systems. They suggest managing diversity through managing social networks which, in the face of globalisation, may contribute hugely to competitive advantage.

The current research on social networks from the perspective of the individual. There are no new studies in South Africa to determine the content and structure of social networks in companies, which forms the focal point of the research. It is especially important to study this issue as the tendency to have homogeneous networks confines people's social worlds in a way that has limiting implications on the information received, relationships formed, attitudes and perceptions (McPherson, *et al.*, 2001).

Understanding the way in which people make networking decisions and the ultimate composition of these networks can assist business owners tasked with creating working environments which stimulate and promote co-ordination, co-operation and greater facilitation within the organisation to achieve just that. The research questions in the next chapter will focus on these elements.



3. CHAPTER 3: RE

The purpose of this study is to identify and refine the nature of informal networks functioning in South African companies. The clarification of concepts from the literature review was used to derive specific research questions (Welman and Kruger, 2001). Daft (1983) argues that knowing the answers to research questions in advance begs the question of the need for research – to keep an open mind, to be surprised, enriches the study. Therefore, the research questions are as follows:

Research Question 1: Do the social networks, observed in companies, exhibit any patterns along the following parameters?

- gender
- race
- age
- education level
- skill set
- frequency
- medium of interaction
- style of interaction
- planned or unplanned interaction
- proximity to contact
- position of contact in relation to position of respondent
- function of contact in relation to function of respondent
- department of contact in relation to department of respondent
- length of time known contact

- main reasons for
- feeling excluded from networks or not
- deliberate networking or not
- preference for networking inside or outside of organisation

Research Question 2: Do Black and White employees network in different ways using the same parameters as in Research Question 1?

Research Question 3: Do women and men network in different ways using the same parameters as in Research Question 1?

For purposes of this study, Black includes Black, Coloured and Indian people.



4. CHAPTER 4: RE

“Research is formalized curiosity. It is poking and prying with a purpose” (Zora Neale Hurston, American Writer, 1903-1960).

4.1. Objectives of the Study

The objectives of the study revolve around the identification of the context and content of social networks in South African organisations. The South African milieu, with a history of the minority suppressing a majority, mirrored by a disproportionate number of minority population in high levels of the workforce (and true population representation in the workforce is not yet a reality), necessitates the importance of race, culture and gender in organisational behaviour research projects.

4.2. Research Design

A predominantly quantitative paradigm was chosen for this study. Creswell (1994) suggests a single paradigm for research because of time available, skills involved and the size of the project. The research design used by this study was non-experimental research as no intervention was planned as a part thereof as mentioned by Welman and Kruger (2001) and it acted as a framework showing intended methods and procedures for collection and analysis (Zikmund, 2000).

The method of choice was to use a survey instrument for data collection. The first step of the process was to review an extensive body of research which then culminated in research questions being formulated. Despite that procedure, the stages of the research process were interrelated. Objectives incorporated in the research questions affected the sample chosen and manner of data collection

(“forward linkage” a It was also realised that information needs influenced planning in the earlier stages (“backward linkage”, Zikmund (2000)). After the research questions crystallised, a population was chosen, a sample thereof selected and data were then collected from the participants with a survey instrument, followed by an analysis of the gathered data.

The entire process is described in more detail in the sections hereafter.

4.3. Population

The target population consisted of individuals between the ages of 23 and 60, working in their current corporate environment for a period of at least one year. The population was limited to people working for companies in the Gauteng area. A population refers to an entire collection of entities (Zikmund, 2000) in to which the researcher wants to generalise the results of the study to, as recommended by Welman and Kruger (2001). They further state that care should be taken in choosing a population as population validity is extremely important for non-experimental research, but less so in the case of internal validity.

It was decided that it was not necessary to have access to all members of the population because of the cost and non-feasibility of such a big operation. The required and accessible population was decided on by using contacts made during the Masters of Business Administration (MBA) Degree at the Gordon Institute of Business Science. MBA colleagues were requested to distribute the survey at their workplaces. The units of analysis i.e. the employees, ranged

from various levels: *Qualitative research* and *quantitative research*. *Qualitative research* is conducted by research assistants to higher management (Welman and Kruger, 2001).

4.4. Sampling

Sampling was required to construct a subset of the population which was likely to be representative of the characteristics under review (Easterby-Smith, Thorpe and Lowe, 1991). During the sampling process, important considerations were: the population, the size of the sample and how the sample was selected (Zikmund, 2000). A non-probability sampling technique (Welman and Kruger, 2001) called quota sampling (Zikmund, 2000 and Easterby-Smith, *et al.*, 1991) was used. The reason for this was the fact that an exact number of subjects of the population sample were required with requisite characteristics (Zikmund, 2000), a sample which at the same time would be big enough for meaningful analysis (Johnson and Harris, 2002). It was imperative to get equal representation of the sub-groups in the sample in order to ensure significance in comparing the sub-groups (Zikmund, 2000).

Problems with quota sampling were the following:

- The sample was not selected randomly (Welman and Kruger, 2001);
- There was bias in classification (Zikmund, 2000);
- Projecting the data beyond the sample would have been inappropriate (Johnson and Harris, 2002); and
- A tendency was observed to interview people who were easily accessible, which in itself could incorporate some bias (Zikmund, 2000).

Even though bias was introduced into the research through the use of quota sampling, the bias experienced in the research was mitigated by the circumstances and context of the research. Variables like race and age were important for the study. The advantages of quota sampling, for example, speed of collection, lower costs and convenience (Easterby-Smith, *et al.*, 1991) outweighed the weaknesses. Because it was employed correctly quota sampling was still valuable for analysing subgroups in the population (Zikmund, 2000).

Eighty people from 15 different companies were surveyed. Information was gathered from twenty Black women, twenty White women, twenty Black men and twenty White men, all between the ages of 23 and 60.

The matrix in figure 1 below illustrates the sample.

Figure 4-1 The quota sample

20 Black women	20 Black men
20 White women	20 White men

4.5. Questionnaire

Quantitative research cannot be done without a reliable measuring instrument. A reflection of current opinions about the construct, i.e. social networks, was measured. Attitudes towards networking can change continually. There were four main ways to choose from for gathering quantitative data: interviews, questionnaires, tests/measures, observation and gathering data from archives of databanks (Easterby-Smith, *et al*, 1991). The complexity of interviews was not underestimated and because a range of fairly simple questions were asked a questionnaire was deemed more appropriate (Easterby-Smith, *et al*, 1991). Data collection was initiated as mentioned with access negotiated through MBA colleagues.

The questionnaire was divided into 4 segments:

- An introduction providing some explanatory notes on social networking and a request to the respondent to participate;
- Section A: Questions garnering demographic details from respondents;
- Section B: Questions soliciting attitudes, typical behaviour, opinions, beliefs and convictions (Welman and Kruger, 2001). Surveys are better at soliciting attitudes than actions – in other words what people think rather than what they have done (Janes, 2001). The researcher was mindful of problems offered by self reporting in survey research, which was the main reason for including some open-ended questions (Northrup, 1996). More specifically Section B provided information which formed a backdrop for the interpretation of the network profiles required in Section C.
 - Section B (1) appraised the individual respondent's propensity to network. Does he or she network by accident or by design?



According to the research, social networks are products of intentional behaviour and it would be interesting to see whether many people in South Africa act in the same manner.

- Section B (2) provided insight as to whether individuals prefer networking inside or outside the organisation. This may be moderated by Section B (4) and (5). Organisation culture and environment may tacitly encourage people to network or not to network, which can force people to form connections outside of their organisation.
- Section B (3) acted as moderator for bias found in the networks provided in Section C. If a company for example employed 90% women a person will be hard-pressed to network with anybody but women in the organisation.
- Section B (4) referred to the ease of networking inside companies. A company can actively encourage or even discourage the formation of social networks, which also may have an impact on the network profiles found in Section C.
- Section B (5) gave possible reasons for an individual feeling excluded and maybe having trouble networking. Some reasons were provided and an open-ended area provided so that respondents can add other reasons if necessary.
- Section C: The most important component of the questionnaire provided respondents with an easy way to indicate what their networking profiles looked like. They were asked to provide details of their 5 most important contacts. Details required included the race, gender and age of the contact



and other details / if the personal networks contain bias or not.

South Africa's diverse population and fractious past necessitated the consideration of the subject effect where participants approach surveys with their own baggage, interpretations and histories (Welman and Kruger, 2001). A seemingly obvious tenet was kept in mind – the fact that one can only expect to receive the answers from questionnaires for the actual questions asked (Johnson and Harris, 2002).

Principles taken into account when the questionnaire was drawn up (Easterby-Smith, *et al*, 1991):

- Questions had to be clear;
- Jargon and specialist language were avoided;
- Personal questions which could be perceived as extremely sensitive, were avoided;
- The researcher made sure that there was only one question per item – to avoid ambiguity;
- Care was taken to prevent leading questions.

4.6. Pre-testing

After creating the instrument, the questionnaire was sent to a small sample of diverse company employees to serve as a pre-test. The testing determined if the collection instrument was satisfactory for data collection (Zikmund, 2000). The questionnaire was checked for errors in wording and design, format,



confusing language, , ambiguity in instructions and meanings, problems concerning length and sequencing (Easterby-Smith, *et al*, 1991). Feedback received was incorporated into the final instrument, which is attached as Appendix 1.

4.7. Data Collection

Paper questionnaires were handed out because of time constraints and to ensure that the anonymity of the respondents remained intact. Respondents in 15 different companies were used. After collection the data were captured onto an Excel spreadsheet for ease of manipulation.

4.8. Data Analysis

The method of analysis should reflect the aims of the research, whether descriptive, comparative or prescriptive (Johnson and Harris, 2002). The questionnaire included questions producing data of a descriptive and comparative nature, including:

- nominal data such as age, gender and race (Sections C.a, C.b, C.c and A.2, A.5 in the Questionnaire (Appendix 1) linked as shown in the Guide to Analysis (Appendix 2);
- ordinal data seen in rating and likert scale questions (C.d to C.h).

The aim of the data is to shed light on the research questions discussed in Chapter 3 (Welman and Kruger, 2001). The raw data were captured on Excel from the questionnaires received and then analysed further in Excel and SPSS.

Descriptive statistics, demographics of respondents and contacts and comparative statistics to find linkages between the demographics and parameters tested.

Some frequencies and percentages were calculated using Microsoft Excel and the Chi-Square and T-Tests (Independent Samples Testing) using SPSS. The Chi-Square statistic was used to test the independence of categorical variables. The Independent Samples Test (including Levene's and the T-Test) was used to evaluate differences between or among groups (Easterby-Smith, *et al*, 1991). The Levene's test (Easterby-Smith, *et al*, 1991) was used to determine if the assumptions of equal variances are valid. The T-Test compares the mean scores of two groups on a given variable.

4.9. Research Limitations

The sampling method included bias and the sample itself was not selected randomly (Welman and Kruger, 2001) and therefore error from the population could not be estimated (Zikmund, 2000).

Unfortunately longitudinal research was an unrealistic aim for this study because of time constraints, but testing the actions and beliefs of participants over a longer time period may have provided insight into the extent and context of relationships in the ever transforming South African environment (Bidart, 2005).

There was a limit to the number of questions that could be posed in the questionnaire. This prevented thorough checking of the individuals for personal

characteristics influence networking in social networks, a thorough evaluation of the companies for networking cultures and attitudes and garnering an understanding of the environment for circumstances conducive or detrimental to networking. The same could be said for information on the family environment of an individual; the behaviour of family may also have an effect on propensity to network (Flap and Volker, 2001).

Despite the fact that it was realised that there was a possibility that access to networking may have been different for different levels of employees, all levels were allowed to participate. Unstructured interviews could have been employed to identify major variables (Welman and Kruger, 2001) but it was felt that the literature provided enough clues.

Notwithstanding the belief that quantitative research is objective and characterised by precision, it embodies just another kind of a subjective approach (Johnson and Harris, 2002). Predominantly closed questions were used which can be a weakness in terms of superficiality as respondents were asked to describe only five of their most important contacts (Easterby-Smith, *et al*, 1991).

4.10. Ethics in Researching Social Networks

The warning by Borgatti and Molina (2005) concerning ethical guidelines for network research in organisations was carefully heeded. They caution that instead of there being two parties to ordinary research there are three parties involved in organisational research: the researcher, respondent and the organisation. The employees might face more risk as they were part of an



organisational hier: them more hesitant to participate. The respondents were assured that the results would be used with the utmost discretion.



5. CHAPTER 5: RE

5.1. Introduction

This chapter presents the results of the study which focused on social networks in the South African business milieu. Research data for 80 employees from different companies are presented using the research questions from Chapter 3 as guidelines.

5.2. Demographic Details of the Respondents

The respondents were drawn from 15 different companies throughout Gauteng.

The composition of the quota sample was as follows:

- 20 Black men;
- 20 White men;
- 20 Black women;
- 20 White women.

While the smallest subgroups consisted of 20 respondents each, the majority of the analyses were done on subgroups consisting of 40 members, for example, tests considering the preferences of the different genders would have been done on two subgroups, one with 40 female respondents and one with 40 male respondents.

The average age of the respondents was 33.54 and the median age 36 years. The minimum age in the sample was 23 and the maximum 57 years. The age intervals of the respondents are presented in Table 5.1 below.



Table 5-1 Age intervals

Age Intervals	Frequency	Percent
20 to 29	24	30.00%
30 to 39	44	55.00%
40 to 49	9	11.30%
50 to 60	3	3.80%

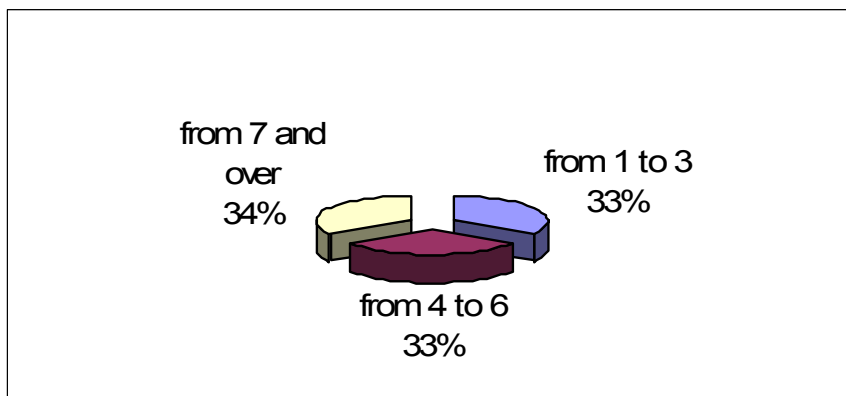
The majority of respondents were between the ages of 30 and 40 years and only 15.1% were 40 and older.

Table 5-2 Respondents' education

Education	Frequency	Percent
less than matric	1	1.30%
matric	12	15.00%
tertiary	29	36.30%
postgraduate	38	47.50%
total	80	100.00%

Table 5.2 displays the distribution of education of the 80 respondents of whom 83.3% have a tertiary qualification or higher and 47.5% reported that they have postgraduate degrees.

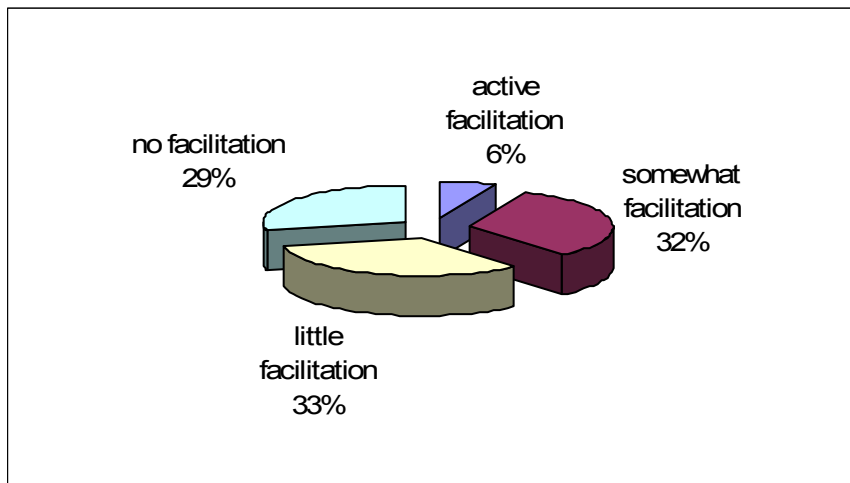
Figure 5-1 Years of service of respondents



The 80 respondents have been with their employers for an average of 6.28 years. Figure 5.1 shows that at least two thirds of the respondents have worked for their current employer for 4 years or more.



Figure 5-2 Degree of fa



Only 6% of respondents reported that their companies actively facilitated the formation of social networks while 29% reported no facilitation whatsoever. 65% of respondents reported between little and somewhat facilitation.

5.3. Research Question 1

The research deals with the issues of the existence and nature of social networks in South African companies. More specifically the research aims to examine the specific biases inherent in South African social networks, with reference to race and gender in particular. The questionnaire requested the respondent to provide details of his or her five most important intra-company contacts. Since the quota sample consisted in total of 80 respondents, 400 responses about the profile of their contacts were collected.

The first research question concerns the contact profile of the entire sample. The second research question brings race into the equation and the third, gender.



Research Question

observed in companies,

exhibit any patterns?

The questionnaire tested for evidence of the following patterns:

- gender
- race
- age
- education level
- skill set
- frequency
- medium of interaction
- style of interaction
- planned or unplanned interaction
- proximity to contact
- position of contact in relation to position of respondent
- function of contact in relation to function of respondent
- department of contact in relation to department of respondent
- length of time known contact
- main reasons for interacting
- feeling excluded from networks or not
- deliberate networking or not
- preference for networking inside or outside of organisation



a. gender profile of

Table 5-3 Contact breakdown for entire sample: gender

		All respondents	
		Count	%
Gender of contacts	Male	208	52.7%
	Female	187	47.3%
Total		395	100.0%

The 80 respondents, seen as a whole, indicated that they network slightly more often with male contacts than with female contacts, as seen in Table 5.3. More than 50% of their 395 (the gender of some contacts were left blank on the questionnaire) contacts were male.

b. race profile of the contacts

Table 5-4 Contact breakdown for entire sample: race

		All respondents	
		Count	%
Race of contacts	Black	140	35.9%
	White	250	64.1%
Total		390	100.0%

A much more distinct bias emerged when using race of contact as a metric. The 80 respondents, seen as a whole, indicated that they network more often with White contacts than with Black contacts as seen in Table 5.4.

c. age profile of contacts

Table 5-5 Contact breakdown for entire sample: age

	All respondents
Average age of contacts	36.76
Maximum age	51.00
Minimum age	27.00

As mentioned above, the average age of the respondents was 33.54 years. The entire group networked with contacts of which the average age was 36.76 years, the minimum age being 27 and the maximum 51 years (Table 5.5). Respondents therefore preferred to network with older people.



d. education profile

Table 5-6 Contact breakdown for entire sample: education

		All respondents	
		Count	%
Education of contacts	Lower than yours	99	25.1%
	Similar to yours	160	40.5%
	Higher than yours	136	34.4%
Total		395	100.0%

Bias to network with similarly educated people can be seen in Table 5.6 as the respondents reported 40.5% of the contacts to have similar education.

Table 5-7 Respondents' education linked to contact education

		Respondent education							
		Less than matric		Matric		Tertiary		Postgraduate	
		Count	%	Count	%	Count	%	Count	%
Contact education	Lower than yours	0	0.00%	1	8.30%	18	62.10%	29	76.30%
	Similar to yours	1	100.00%	9	75.00%	21	72.40%	32	84.20%
	Higher than yours	1	100.00%	11	91.70%	25	86.20%	23	60.50%
Total		1		12		29		38	

The number of people with matric and lower formed a very small part of the sample. Of the 12 respondents who indicated that they have matric only 1 (8.3%) networked with a less qualified individual, 9 of them (75%) had similarly qualified contacts and 11 (91.7%) networked with higher qualified people. Postgraduates networked with people with similar or lower qualification, tertiary qualified people with higher and similar, whereas matric and lower networked with higher qualified people (Table 5.7). These differences have a chi-square p-value of 0.001 and are therefore statistically significant.



e. skill set profile o

Table 5-8 Contact breakdown for entire sample: skill set

		All respondents	
		Count	Percentage
Skill set of contacts	Lower than yours	86	22.1%
	Similar to yours	195	50.1%
	Higher than yours	108	27.8%
Total		389	100.0%

389 responses were received in terms of the question if respondents prefer to network with people with similar or dissimilar skill sets. At least 50% of the given responses conveyed contacts with similar skill sets and therefore it appears that respondents preferred to network with comparably skilled people.

f. frequency of interaction with contacts

Table 5-9 Contact breakdown for entire sample: interaction frequency

		All respondents	
		Count	%
Interaction frequency with contacts	Once a day	202	51.1%
	Few times a week	146	37.0%
	Few times a month	43	10.9%
	Few times a year	4	1.0%
Total		395	

More than 80% of contacts were networked with more than a few times a week (Table 5.9). Most of the responses indicated interaction at least once a day, 51.1%, and 37% at least a few times a week.

g. medium of interaction with contacts

Table 5-10 Contact breakdown for entire sample: interaction medium

		All respondents	
		Count	%
Medium of interaction with contacts	Unplanned face to face meetings	316	31.1%
	Email	251	24.7%
	Planned face to face meetings	238	23.4%
	Telephone	157	15.5%
	Instant messaging	53	5.2%
Total		1015	

The most popular contacts appeared to be unplanned face-to-face meetings (31.1% of responses, Table 5.10), followed by e-mail (24.7%) and then face-to-face meetings (23.4%). Respondents were asked to rank the five possibilities provided in Table 5.10.

h. style of interaction with contacts

Table 5-11 Contact breakdown for entire sample: interaction style

		All respondents	
		Count	%
Style of interaction with contacts	Informal discussion during working hours	318	36.6%
	Formal discussion during working hours	268	30.9%
	Informal discussion after working hours	177	20.4%
	Formal discussion after working hours	105	12.1%
Total		868	

The, by respondents, reported style of interaction (Table 5.11), supported the most popular medium of interaction shown above in Table 5.10 as being 36.6% of responses favouring informal discussions during working hours as the preferred approach. Again the respondents were required to rank the alternatives.

i. planned or unplanned interaction with contacts

Table 5-12 Contact breakdown for entire sample: planning of engagements

		All respondents	
		Count	%
Planned engagement with contacts	Never	78	20.1%
	Sometimes	272	70.1%
	Always	38	9.8%
Total		388	

Respondents seemingly only sometimes (70.1%, Table 5.12) planned their rendezvous with contacts. This answer is in accordance with the responses received for section g and h above, which indicated a leaning towards informal and unplanned events.

j. proximity to contact

Table 5-13 Contact breakdown for entire sample: proximity to contact

		All respondents	
		Count	%
Proximity of contacts	Works within 10 m	166	42.0%
	Same floor	116	29.4%
	Different floor	53	13.4%
	Different building	46	11.6%
	Different city	13	3.3%
	Different country	1	0.3%
Total		395	

The majority of responses received, 84.8% (Table 5.13), indicated same building proximity between respondents and their contacts. Of that, 42% worked within 10 metres of their contacts and only 15.2% worked in a different building, city or country as their contacts.

k. position of contacts in relation to respondents

Table 5-14 Contact breakdown for entire sample: sameness of position

		All respondents	
		Count	%
Position of contacts	Higher than you	180	46.9%
	Equal	113	29.4%
	Lower than you	91	23.7%
Total		384	

Most respondents networked with people higher up in the hierarchy than they were (Table 5.14). 46.9% reported contacts in higher positions, 29.4% reported their contacts in lower positions and 23.7% showed contacts lower than them in the company hierarchy.

l. function of contacts

Table 5-15 Contact breakdown for entire sample: sameness of function

		All respondents	
		Count	%
Same type of function as contacts	Yes, the same	215	54.4%
	No, not the same	180	45.6%
Total		395	

Most responses (54.4%, Table 5.15) indicated that respondents worked in the same type of function as their contacts.

m. department of contacts in relation to respondents

Table 5-16 Contact breakdown for entire sample: sameness of department

		All respondents	
		Count	%
Same department as contacts	Yes, the same	258	65.3%
	No, not the same	137	34.7%
Total		395	

65.3% of respondents worked in the same department as their contacts.

n. length of time known

Table 5-17 Contact breakdown for entire sample: average number of years known

	All respondents
Average number of years known contacts	3.54
Maximum number of years	12.40
Minimum number of years	0.70

As indicated in Table 5.17 respondents have known their contacts for an average number of 3.54 years. The longest relationship in the sample was 12.4 years and the shortest 0.70 years.

o. main reasons for

Table 5-18 Respondents' reasons for networking

		Responses	
		Mentions	Percent
Reason for networking	Technical advice	224	56.00%
	Friendship and support	224	56.00%
	Sound boarding	179	44.80%
	Mentoring	137	34.30%
	Coalition building	116	29.00%
	Career Advancement	91	22.80%
	Access outside networks	78	19.50%
	Improving job security	34	8.50%
	Social acceptance	25	6.30%
Total		400	100.00%

Respondents interacted with 56% (Table 5.18) of the contacts for purposes of technical advice and friendship and support. Their third most important reason for networking, accounting for 44.8% of contacts, was sound boarding. Thereafter mentoring followed at 34.4% and coalition building at 29%.

p. exclusion from networks

Table 5-19 Respondents' reasons for feeling excluded: split by number of mentions

		Responses	
		Mentions	Percent
Reason for feeling excluded	Not feel excluded	41	36.61%
	Race	17	15.18%
	Personality	11	9.82%
	Gender	10	8.93%
	Other	10	8.93%
	Age	8	7.14%
	Experience	8	7.14%
	Skill	7	6.25%
Total		112	100.00%

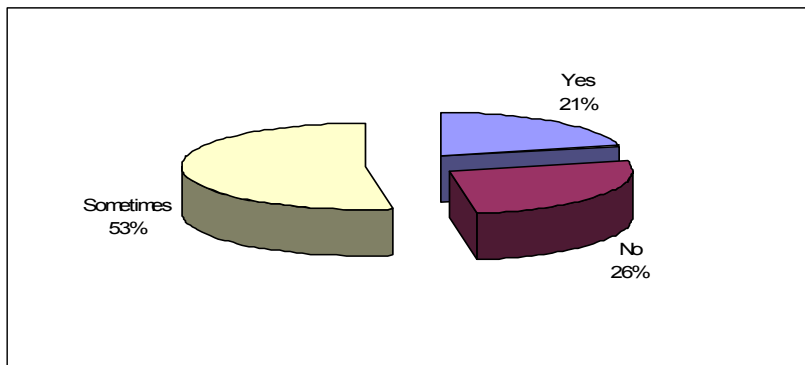
Table 5-20 Respondents' reasons for feeling excluded: split by number of respondents

		All respondents	
		Count	%
Feeling excluded	Yes, excluded	36	45.0%
	No, not excluded	44	55.0%
Total		80	

Respondents were identified from participation in social networks in their companies. Each respondent could indicate more than one reason for feeling excluded. 112 responses were received and were detailed in Table 5.19. Of the responses that indicated that they do feel excluded 15.18% pointed towards race as the overriding reason. 44 of the respondents indicated that they did not feel excluded, while 36 respondents reported one or more reasons for exclusion. Just more than half of the respondents therefore reported that they were able to participate freely (Table 5.20).

q. deliberate networking by respondents

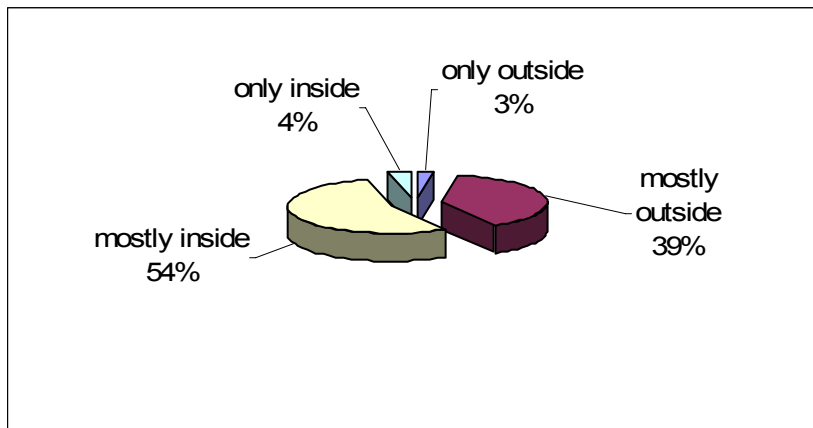
Figure 5-3 Respondents networking deliberately



Of the entire sample 21% specified that they network deliberately, in other words, they specifically targeted people they wanted to build relationships with. Most of the respondents, 53%, indicated that they only targeted contacts deliberately sometimes (Figure 5.3).

r. preference for network organisation

Figure 5-4 Preference to network inside or outside organisation



The majority of respondents preferred to network mostly inside the company when given the choice of networking inside or outside of their current employer company, whereas 39% reported a preference for networking mostly outside.

5.4. Research Question 2

Research Question 2: Do Black and White employees network in different ways?

A quota sample was used to gather the data needed. In order to make sense of the possible differences in networking between Black and White employees, the sample was divided into two sub-samples containing 40 Black respondents and 40 White respondents. These two sub-samples were analysed using the parameters below, the same ones having been used in Research Question 1, to provide answers for Research Question 2. The areas in grey indicate the highest percentages in each table.



a. gender profile

Table 5-21 Respondent race and contact gender

		Respondent race			
		Black	Black	White	White
		Count	%	Count	%
Gender of contacts	Male	99	50.8%	109	54.5%
	Female	96	49.2%	91	45.5%
Total		195		200	

Black respondents (Table 5.21) revealed that they network fairly equally with male and female contacts while White respondents indicated a preference for male contacts (54.5%) over female contacts (45.5%). The chi-square significance value was 0.458 and the differences were therefore not statistically significant, which means that Black and White respondents see no significant difference in networking between the genders.

b. race profile of the contacts

Table 5-22 Respondent race and contact race

		Respondent race			
		Black	Black	White	White
		Count	%	Count	%
Race of contacts	Black	97	51.1%	43	21.5%
	White	93	48.9%	157	78.5%
Total		190		200	

Black respondents (Table 5.22) reported an inclination to network equally with Black and White contacts. White respondents, however, had a distinct bias towards networking with White contacts (78.5%). There is therefore a statistically significant difference in the networking of respondents in terms of race at a probability level of 0.000.



c. age profile of

Table 5-23 Respondent race and contact age

	Respondent race	
	Black	White
Average age of contacts	34.79	38.57

The race of the respondents and average age of their contacts (Table 5.23) produce a Levene’s significance level of 0.838 and a T-Test significance level of 0.001. There is therefore a significant difference between the average age of contacts of White and Black employees.

d. education profile of contacts

Table 5-24 Respondent race and contact education

		Respondent race			
		Black	Black	White	White
		Count	%	Count	%
Education of contacts	Lower than yours	47	24.1%	52	26.0%
	Similar to yours	73	37.4%	87	43.5%
	Higher than yours	75	38.5%	61	30.5%
Total		195		200	

Black respondents formed relationships with contacts with similar or higher education than themselves. White respondents networked predominantly with people similarly educated as themselves. These differences as presented in Table 5.24, however were not statistically significant.

e. skill set profile of contacts

Black and White respondents both displayed proclivity for networking with similarly skilled contacts (Table 5.25). The differences between the two groups were not statistically significant.



Table 5-25 Responden

		Respondent race			
		Black	Black	White	White
		Count	%	Count	%
Skill set of contacts	Lower than yours	45	23.1%	41	21.1%
	Similar to yours	88	45.1%	107	55.2%
	Higher than yours	62	31.8%	46	23.7%
Total		195		194	

f. frequency of interaction with contacts

Table 5-26 Respondent race and interaction frequency

		Respondent race			
		Black	Black	White	White
		Count	%	Count	%
Interaction frequency with contacts	Once a day	115	59.0%	87	43.5%
	Few times a week	63	32.3%	83	41.5%
	Few times a month	16	8.2%	27	13.5%
	Few times a year	1	0.5%	3	1.5%
Total		195		200	

Black respondents appeared to interact as frequently as once a day in 59% of the cases (Table 5.26). White respondents interacted with their contacts daily in 43.5% of the instances and 41.5% weekly. The statistically significant finding at a probability level of 0.016 meant that Black respondents favoured more frequent interaction.

g. medium of interaction with contacts

Table 5-27 Respondent race and medium of interaction

		Respondent race			
		Black	Black	White	White
		Count	%	Count	%
Medium of interaction with contact	Unplanned face to face meetings	152	29.5%	164	32.9%
	Planned face to face meetings	112	21.7%	126	25.3%
	Telephone	90	17.4%	67	13.4%
	Email	129	25.0%	122	24.4%
	Instant messaging	33	6.4%	20	4.0%
Total		516		499	

An unplanned face-to-face meeting was the most popular medium of interaction with their contacts (Table 5.27). Black respondents indicated e-mail as their second most popular medium at 25% while White respondents showed planned face-to-face meetings as their second choice. The differences were statistically insignificant.

h. style of interaction with contacts

Table 5-28 Respondent race and style of networking

		Respondent race			
		Black		White	
		Count	%	Count	%
Style of interaction with contact	Informal discussion during working hours	151	37.9%	167	35.5%
	Informal discussion after working hours	76	19.1%	101	21.5%
	Formal discussion during working hours	132	33.2%	136	28.9%
	Formal discussion after working hours	39	9.8%	66	14.0%
Total		398	100.0%	470	100.0%

Black and White respondents appeared to be more interested in networking during working hours (Table 5.28), either formally or informally.

i. planned or unplanned interaction with contacts

Table 5-29 Respondent race and planned engagement

		Respondent race			
		Black		White	
		Count	%	Count	%
Planned engagement with contacts	Never	51	26.7%	27	13.7%
	Sometimes	123	64.4%	149	75.6%
	Always	17	8.9%	21	10.7%
Total		191		197	

Engagement with contacts was only planned sometimes by Black and White respondents (Table 5.29).



j. proximity to c

Table 5-30 Respondent race and proximity of contacts

		Respondent race			
		Black	Black	White	White
		Count	%	Count	%
Proximity of contacts	Works within 10 m	75	38.5%	91	45.5%
	Same floor	74	37.9%	42	21.0%
	Different floor	22	11.3%	31	15.5%
	Different building	16	8.2%	30	15.0%
	Different city	8	4.1%	5	2.5%
	Different country	0	0.0%	1	0.5%
Total		195		200	

Table 5.30 revealed that both Black and White reported the close proximity of most of their contacts, a statistically significant finding at a probability level of 0.003.

k. position of contacts in relation to respondents

Table 5-31 Respondent race and position of contacts

		Respondent race			
		Black	Black	White	White
		Count	%	Count	%
Position of contacts	Higher than you	91	48.7%	89	45.2%
	Equal	55	29.4%	58	29.4%
	Lower than you	41	21.9%	50	25.4%
Total		187		197	

The positions of the contacts of Black and White respondents were higher than that of the respondents in the majority of the cases (Table 5.31).

l. function of contacts in relation to respondents

Table 5-32 Respondent race and function of contacts

		Respondent race			
		Black	Black	White	White
		Count	%	Count	%
Same type of function as contact	Yes, the same	34	85.0%	38	95.0%
	No, not the same	31	77.5%	32	80.0%
Total		40		40	



Networking occurred most of the time (Table 5.32).

m. department of contacts in relation to respondents

Table 5-33 Respondent race and department of contacts

		Respondent race			
		Black		White	
		Count	%	Count	%
Department of contacts	Yes	38	95.0%	36	90.0%
	No	19	47.5%	37	92.5%
Total		40		40	

The Black respondents in the sample networked more often with people in their own departments whereas White employees networked equally with people in their own departments and people not in their departments (Table 5.33). The chi-squared test statistic is 31.809 with an associated $p < 0.001$ and therefore statistically significant.

n. length of time known

Table 5-34 Respondent race and length of relationship with contacts

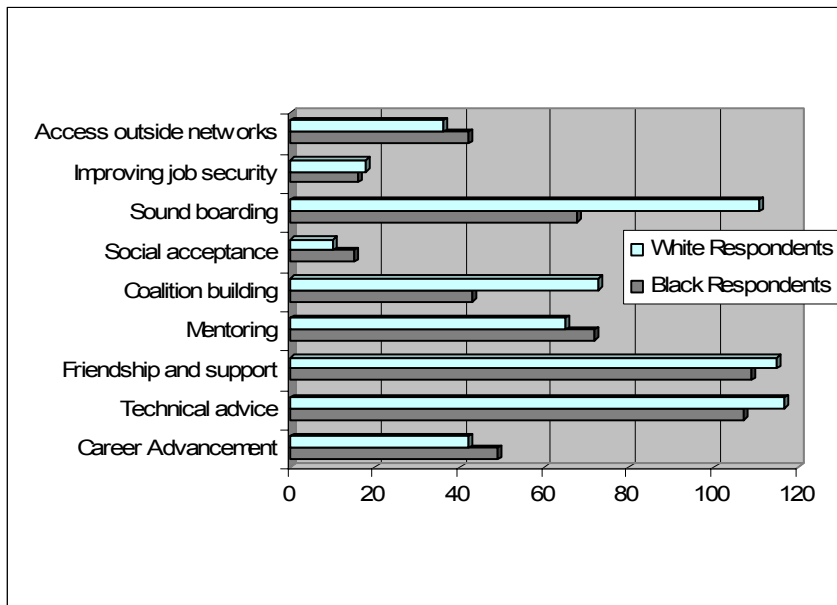
	Respondent race	
	Black	White
Average number of years known contacts	2.40	4.60

Where race of respondents was linked with the average length of relationship with their contacts the Levene's test had a significance level of 0.001 and therefore the variances were significantly different. The T-Test for the equality of means had a bottom line t value of -4.626, 53.115 degrees of freedom and significance level of 0.000. Black and White employees have known their contacts for a statistically significant different number of years (Table 5.34).



o. main reasons

Figure 5-5 Reasons for networking: race



Respondents were asked to show what their main reasons for networking with their specific contacts were. The results had a chi-square test statistic of 17.3066 and a probability of 0.027 and were therefore statistically significant. White respondents connected with their contacts mainly for technical advice (Figure 5.5), friendship and support and sound boarding. The three most important reasons for Black respondents were: friendship and support, technical advice and mentoring.

p. exclusion from networks

Table 5-35 Respondent race and exclusion T-Test

		Respondent Feels Excluded	%	Respondent does not feel excluded	%	
Respondent race	Black	22	55.00%	18	45.00%	40
	White	14	35.00%	26	65.00%	40
Total		36		44		80

65% of the White respondents reported that they do not feel excluded from participating in social networks in their companies (Table 5.35). Only 45% of



Black respondents included. More than half the Black respondents revealed that they feel excluded from social network participation. The chi-squared test statistic is 3.232 with an associated $p = 0.072$ and is therefore not statistically significant.

q. deliberate networking

Table 5-36 Respondent race and targeting cross-tabulation

		Respondent race		Total	Percentages	
		Black	White		Black	White
Target contacts deliberately	Yes	5	12	17	12.50%	30.00%
	No	14	7	21	35.00%	17.50%
	Sometimes	21	21	42	52.50%	52.50%
Total		40	40	80	100.00%	100.00%

Intention to target deliberately, differed for Black and White employees (Table 5.36). Only 12.5% of black respondents and 30% of white respondents targeted contacts deliberately. The majority in both race groups reported targeting contacts deliberately sometimes (52.5%). The Chi-Square test statistic is 5.216 with an associated p of 0.074, therefore not statistically significant.

r. preference for networking inside or outside of organisation

Table 5-37 Network preference inside/outside organisation: race

	Respondent race	Mean
Network inside/outside	Black	2.58
	White	2.62

The Black and White respondents in the sample preferred to network mostly inside their organisation of employ (Table 5.37). The means were not significantly different, confirmed by Levene's test with a significance level of 0.474 and the T-Test significance level of 0.771.



5.5. Summary of findings

The significant differences between the two race groups, in terms of the parameters, are summarised in Table 5.38.

Table 5-38 Summary of findings in terms of respondent race

Parameters of contacts		Significant	Not significant
a	gender of contact		X
b	race of contact	√	
c	age of contact	√	
d	education level of contact		X
e	skill set of contact		X
f	frequency of interaction	√	
g	medium of interaction		X
h	style of interaction		X
i	planned or unplanned interaction	√	
j	proximity to contact	√	
k	position of contact in relation to position of respondent		X
l	function of contact in relation to function of respondent		X
m	department of contact in relation to department of respondent	√	
n	length of time known contact	√	
o	main reasons for interacting	√	
p	feeling excluded from networks or not		X
q	deliberate networking		X
r	preference for networking inside or outside of organisation		X

Eight out of the 18 parameters looked at revealed significant differences between the race groups. Where Black and White respondents were asked to indicate how they networked in terms of race, age, frequency, planning, proximity, department, length of time known and reasons for networking, the differences observed were statistically significant.

5.6. Research Question 3

Research Question 3: Do women and men network in different ways?

The same method as in Research Question 2 was employed here. In order to make sense of the possible differences in networking between male and female employees, the sample was divided into two sub-samples containing 40 male



respondents and 4 e two sub-groups were analysed using the parameters below.

a. gender profile of contacts

Table 5-39 Respondent gender and contact gender

		Respondent gender			
		Male		Female	
		Count	%	Count	%
Gender of contacts	Male	128	65.0%	80	40.4%
	Female	69	35.0%	118	59.6%
Total		197		198	

Table 5.39 shows statistically significant differences (at a level of 0.000) revealing that men network more often with men (65%) than with women (35%). The reverse was also true that women had more female contacts (59.6%) than male ones (40.4%).

b. race profile of the contacts

Table 5-40 Respondent gender and contact race

		Respondent gender			
		Male		Female	
		Count	%	Count	%
Race of contacts	Black	78	40.6%	62	31.3%
	White	114	59.4%	136	68.7%
Total		192		198	

Male and female respondents had more White contacts than Black contacts (Table 5.40). The findings were not statistically significant.

c. age profile of contacts

Table 5-41 Respondent gender and contact age

	Respondent gender	
	Male	Female
Average age of contacts	37.24	36.45

The mean age of the respondents was not significantly different.

d. education profile of contacts

Table 5-42 Respondent gender and contact education

		Respondent gender			
		Male		Female	
		Count	%	Count	%
Education of contacts	Lower than yours	52	26.4%	47	23.7%
	Similar to yours	89	45.2%	71	35.9%
	Higher than yours	56	28.4%	80	40.4%
Total		197		198	

Male respondents associated with similarly educated contacts whereas female respondents dealt more with higher qualified people. In less than 30% of the cases male and female respondents networked with people less qualified than themselves. Table 5.42 contains the statistically significant numbers, which have a significance level of 0.000.

e. skill set profile of contacts

Table 5-43 Respondent gender and contact skill set

		Respondent gender			
		Male		Female	
		Count	%	Count	%
Skill set of contacts	Lower than yours	41	21.4%	45	22.8%
	Similar to yours	106	55.2%	89	45.2%
	Higher than yours	45	23.4%	63	32.0%
Total		192		197	

Respondents preferred similarly skilled contacts irrespective of gender (Table 5.43). This preference was not statistically significant.



f. frequency of

Table 5-44 Respondent gender and interaction frequency

		Respondent gender			
		Male	Male	Female	Female
		Count	%	Count	%
Interaction frequency with contacts	Once a day	90	45.7%	112	56.6%
	Few times a week	80	40.6%	66	33.3%
	Few times a month	26	13.2%	17	8.6%
	Few times a year	1	0.5%	3	1.5%
Total		197		198	

Male respondents dealt with their contacts fairly equally either daily or weekly (Table 5.44) while women tended to prefer daily contact (56.6%), although the findings were not significant.

g. medium of interaction with contacts

Table 5-45 Respondent gender and medium of interaction

		Respondent gender			
		Male	Male	Female	Female
		Count	%	Count	%
Medium of interaction with contact	Unplanned face to face meetings	159	31.5%	157	30.8%
	Planned face to face meetings	115	22.8%	123	24.1%
	Telephone	86	17.0%	71	13.9%
	Email	122	24.2%	129	25.3%
	Instant messaging	23	4.6%	30	5.9%
Total		505		510	

Unplanned face-to-face meetings and thereafter e-mail were the medium of choice for both male and female respondents.

h. style of interaction with contacts

In terms of style of interaction there was very little to choose between reported connections by men and women (Table 5.46), although the result was not statistically significant. The most popular style was informal discussion during working hours. The chi-squared test statistic was 1.678 with an associated $p = 0.892$.



Table 5-46 Responden

		Respondent gender			
		Male		Female	
		Count	%	Count	%
Style of interaction with contact	Informal discussion during working hours	156	35.7%	162	37.6%
	Informal discussion after working hours	91	20.8%	86	20.0%
	Formal discussion during working hours	134	30.7%	134	31.1%
	Formal discussion after working hours	56	12.8%	49	11.4%
Total		437		431	

i. planned or unplanned interaction with contacts

Table 5-47 Respondent gender and planned engagement

		Respondent gender			
		Male		Female	
		Count	%	Count	%
Planned engagement with contacts	Never	37	19.5%	41	20.7%
	Sometimes	133	70.0%	139	70.2%
	Always	20	10.5%	18	9.1%
Total		190		198	

Engagement with contacts was only planned sometimes by male and female respondents (Table 5.47).

j. proximity to contact

Table 5-48 Respondent gender and proximity of contacts

		Respondent gender			
		Male		Female	
		Count	%	Count	%
Proximity of contacts	Works within 10 m	74	37.6%	92	46.5%
	Same floor	63	32.0%	53	26.8%
	Different floor	28	14.2%	25	12.6%
	Different building	21	10.7%	25	12.6%
	Different city	11	5.6%	2	1.0%
	Different country	0	0.0%	1	0.5%
Total		197		198	

Table 5.48 revealed that both male and female respondents reported the close proximity of most of their contacts, a statistical insignificant finding at a probability level of 0.061.



k. position of c

Table 5-49 Respondent gender and position of contacts

		Respondent gender			
		Male		Female	
		Count	%	Count	%
Position of contacts	Higher than you	92	48.4%	88	45.4%
	Equal	59	31.1%	54	27.8%
	Lower than you	39	20.5%	52	26.8%
Total		190		194	

The positions of the contacts of male and female respondents were higher than that of the respondents in the majority of the cases (Table 5.49).

l. function of contacts in relation to respondents

Table 5-50 Respondent gender and function of contacts

		Respondent gender			
		Male		Female	
		Count	%	Count	%
Same type of function as contact	Yes, the same	39	97.5%	33	82.5%
	No, not the same	32	80.0%	31	77.5%
Total		40		40	

Networking occurred with people in similar functions most of the time (Table 5.50).

m. department of contacts in relation to respondents

Table 5-51 Respondent gender and department of contacts

		Respondent gender			
		Male		Female	
		Count	%	Count	%
Department of contacts	Yes	36	90.0%	38	95.0%
	No	26	65.0%	30	75.0%
Total		40		40	

The male and female respondents in the sample networked with people in their own departments (Table 5.51). The chi-squared probability is 0.433 and therefore not statistically significant.

n. length of tim

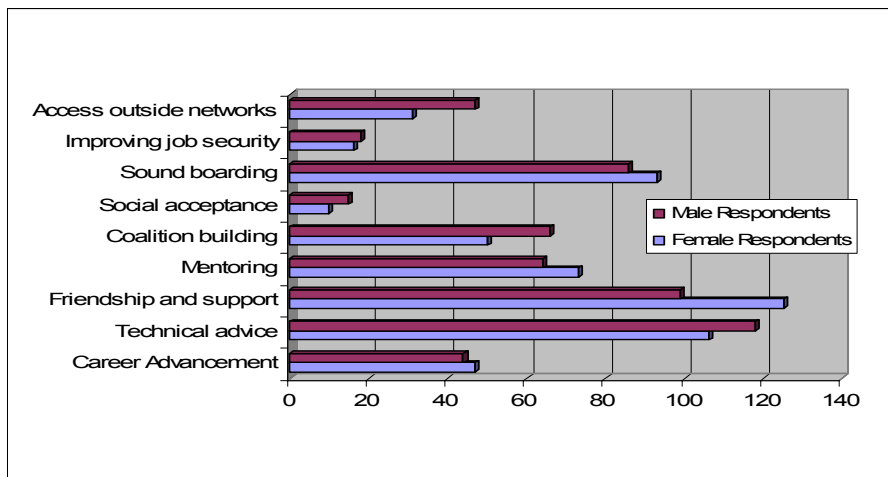
Table 5-52 Respondent gender and length of relationship with contacts

	Respondent gender	
	Male	Female
Average number of years known contacts	3.44	3.64

There was no significant difference between the number of years that male and female respondents have known their contacts (Table 5.52).

o. main reasons for interacting

Figure 5-6 Reasons for networking by gender



Male respondents built their relationships with their contacts mainly for technical advice, friendship and support whereas women reported the same two reasons but in reverse order. The results have a chi-square test statistic of 11.199 with an associated $p = 0.191$ and are therefore not statistically significant.

p. exclusion from networks

Table 5-53 Exclusion T-Test for gender

		Respondent Feels Excluded	%	Respondent does not feel excluded	%	
Respondent gender	Male	14	35.00%	26	65.00%	40
	Female	22	55.00%	18	45.00%	40
Total		36		44		80

35% of male respondents targeting in social networks in their companies, while 65% did not (Table 5.53). 55% of female respondents felt excluded while 45% did not. The results are substantial even though not statistically significant at a chi-square level of 0.072.

q. deliberate networking

Table 5-54 Deliberate networking by gender

		Respondent gender		Total	Percentages	
		Male	Female		Male	Female
Target contacts deliberately	Yes	13	4	17	32.50%	10.00%
	No	9	12	21	22.50%	30.00%
	Sometimes	18	24	42	45.00%	60.00%
Total		40	40	80	100.00%	100.00%

Women and men indicated fairly evenly (Table 5.54) that most of them targeted contacts deliberately only sometimes. Men however formed the majority of the respondents who indicated that they deliberately networked in many instances while women formed the majority of the respondents who indicated that they do not target connections deliberately. This finding is significant with a chi-squared test statistic of 6.050 and an associated $p = 0.049$.

r. preference for networking inside or outside of organisation

Table 5-55 Network preference inside/outside of organisation: gender

	Respondent gender	Mean
Network inside/outside	Male	2.68
	Female	2.51

Men and women preferred roughly equally to network inside the organisation (Table 5.55).



5.7. Summary of findings in terms of respondent gender

The significant differences between the two gender groups, in terms of the parameters, are summarised in Table 5.56.

Table 5-56 Summary of findings in terms of respondent gender

Parameters of contacts		Significant	Not significant
a	gender of contact	√	
b	race of contact		X
c	age of contact		X
d	education level of contact	√	
e	skill set of contact		X
f	frequency of interaction		X
g	medium of interaction		X
h	style of interaction		X
i	planned or unplanned interaction		X
j	proximity to contact		X
k	position of contact in relation to position of respondent		X
l	function of contact in relation to function of respondent		X
m	department of contact in relation to department of respondent		X
n	length of time known contact		X
o	main reasons for interacting		X
p	feeling excluded from networks or not		X
q	deliberate networking	√	
r	preference for networking inside or outside of organisation		X

Three out of the 18 parameters looked at revealed significant differences between the gender groups. Where male and female respondents were asked to indicate how they networked in terms of gender, education and deliberate networking the differences observed were statistically significant.



6. CHAPTER 6: DI

6.1. Introduction

This section relates the findings presented in the previous chapter to the research problems discussed in Chapters 1 and 3 and the literature discussed in Chapter 2.

6.2. The Research Problem in a Nutshell

Companies have over the years come to understand the value of people, i.e. human resources, as a contributing force to business success. More recently though, relationships and the networks they span were recognised as vital participants in the creation of competitive advantage (Burt, 2000). Homophily, the penchant of individuals to connect with and form attachments with similar others, has positive and negative effects on the informal networks. McPherson, *et al* (2001) cite over a hundred studies showing homophily in areas such as age, race, gender, class and organisational role. In the South African context the perception exists, that the variables of race and gender would be the key binding and exclusionary factors in social networks. Apart from establishing the form of networks in companies, the research set out to probe the effects of race and gender in differentiation of the formation of social networks.

6.3. Demographics of Respondents

Even though the quota sample consisted of

- 20 Black men
- 20 White men
- 20 Black women

- 20 White women,

i.e. 80 respondents in total, the analyses were done on subgroups of 40: 40 Black respondents and 40 White respondents and 40 male respondents and 40 female respondents. It is interesting to note a substantial difference in the age levels of respondent groups and the average tenure with their current employers in terms of race (Table 6.1).

Table 6-1 Demographic details of respondents

Demographics	All	Black	White	Significant	Not significant
average age	33.54	30.2	36.9	√	
education	3.3	3.3	3.3		X
average years worked	6.29	4.63	7.94	√	
		Male	Female		
average age		32.8	34.28		X
education		3.4	3.2		X
average years worked		5.52	7.05		X

Black respondents are significantly younger than the average age (Table 6.1) and White respondents significantly older. No clear cause for this distinction was tested by the survey but one can speculate that since Black people only started participating in business in larger numbers more recently than White people and that some Black respondents may have been specifically advanced through the ranks so that one would get younger Black professionals on the same levels as older White employees. The age distribution of the Black sub-group is more tightly dispersed around the average of 30.20 years while the White sub-group shows a more loosely spread distribution (standard deviation of 7.845 versus 4.014) around the average of 36.90 years. This means that all the Black respondents are closer in age to their average age of 30.2 years than the White respondents are in age to their average age of 36.9 years. In addition Black respondents have worked for their current employers for a shorter period of time, 4.63 years, as opposed to the White respondents with an average of



7.94 years. A number of these disparities may be postulated:

- the recent freeing up of job and education opportunities for Black people may have created a cohort of new entrants,
- the absence of older Black candidates may be explained by past restrictive discriminatory practices,
- the Black respondent group may have a perception that it is important to complete postgraduate education sooner rather than later,
- the findings may create a perception that Black respondents engage in job-hopping because of their shorter tenure,
- the fact that Black respondents have worked for their current employers for a significantly shorter period than White respondents may be because of the differences in age between the groups, and
- the differences in education level are negligible and can therefore not be an explanation for the different age levels of the sub-groups.

In terms of gender, female respondents are slightly older than male respondents on average. Male respondents have worked for their employers for an average of 5.52 years and female respondents for an average of 7.05 years.

The differences in the averages of age and number of years at their current employer for each gender are therefore not as marked as in the case of race. The reason for this may be that women have been assimilated into the business world to a greater extent than Black employees as the gender integration process has been going on for longer than the integration of the races. More

research should be  ic reasons in the South African context.

The majority of the respondents are fairly highly qualified (refer table 5.2) since most of them (83.3%) have a tertiary qualification. Black, White, male and female respondents of the sample are highly qualified. Men in the sample have a slightly higher average in the case of education but the difference is inconsequential.

A very small percentage of respondents in the sample (only 6%), indicated that their companies actively facilitated the formation of social networks between their employees, (Figure 5.2). The majority of companies oscillate between little and somewhat facilitation, which indicates an opportunity for more premeditation in relationship building.

6.4. Research Questions

Three research questions were proposed in Chapter 3.

Research Question 1: Do the social networks, observed in companies, exhibit any patterns?

Research Question 2: Do Black and White employees network in different ways?

Research Question 3: Do women and men network in different ways?

This section assembles the research problem, the theory and the findings into a format using a combination of the three research questions. Each of the constructs is discussed with reference to:

- all respondents: F
- race sub-groups: Research Question 2 (II)
- gender sub-groups: Research Question 3 (III)

a. gender of contacts

I. all respondents

The sample exhibited a preference for networking with male contacts even though the indicated bias was slight (Table 5.3). This agrees with the theory in terms of the homophily principle, which describes tendency towards similarity, where one would have expected half of the contacts to be male and half to be female since the gender breakdown of the respondents were 40 males and 40 females. If they had reported homogenous contacts the contact profile would have been 200 male contacts and 200 female contacts. This inclination towards similarity creates a prevalence of uniformity (McPherson *et al*, 2001).

II. race of respondents

There was no significant difference between the two race groups with regard to the gender of their contacts. Black and White respondents elected to interrelate with male and female contacts in equal proportion (Table 5.21).

III. gender of respondents

The homophily principle explains the findings in terms of the significant differences between male and female respondents and their contacts (Table 5.39). Male respondents overwhelmingly associate with other males (65%) while women prefer other women only slightly less substantially (59.6%). The finding concurs with Hanson (2000) who also found that women exchange job-related information predominantly with other women.



b. race of contacts

I. all respondents

A more conspicuous partiality surfaced when race was used as a metric. The contact profile reported by the entire sample was predominantly White (64.1%, Table 5.4) which is surprising but not totally inconsistent with the literature. One would expect, under the homophily principle, that the contact profile should mirror the gender breakdown profile in that 50% of the contacts should be Black and 50% White. A reason for this discrepancy could be that there are smaller numbers of Black managers in business and that they find it more difficult to form networks of similar people (Ibarra, 1995). Ibarra's study in the United States found that minority managers had more racially diverse networks.

II. race of respondents

A clear distinction was found between the racial preferences of contacts of Black and White respondents. Black respondents reported that they network to some extent (51.1%, Table 5.22) more with Black contacts than White. However White respondents reported a clear tendency to network more with White contacts (78.5%). The networks of Black respondents were undoubtedly more diverse than those of White respondents, which contrasts with the finding of Mtizira-Nondo (1997) showing that Black people networked mainly among themselves even though they indicated that cross-cultural networking would be more strategic. This agrees rather with Ibarra (1995) in terms of the diversity of the networks of minorities. This finding is heartening as racially homogeneous networks make the assimilation of individuals from different races into those networks normally extremely unlikely (Ibarra, 1995). It seems as though Black employees are finding White employees to network with where in the past they would have networked with like individuals. Alternatively this could naturally also

mean that there are... to network with in their companies.

III. gender of respondents

When respondent gender and contact race were compared the following results were found: male respondents favoured White contacts (59.4%, Table 5.40) and female respondents also favoured White contacts (68.7%). These results approached significance of 0.055 (a small sample has a bigger likelihood of a type 2 error). Delving deeper into the figures it became clear how the results came about. In terms of gender preferences Black and White male respondents and female respondents showed the same pattern (Black male respondents networked predominantly with males, Black female respondents predominantly with females, White male respondents predominantly with males, etc). In terms of race, however, there was one significant difference - White male and female respondents predominantly networked with White contacts (between 75 and 80%). Black male respondents predominantly networked with Black contacts (58.7%, Table 6.1). The critical difference was that Black female respondents favoured White contacts (56.1%) more than their Black counterparts.

Table 6-2 Black female and male respondents: contact profile

Black female respondents				Black male respondents			
Male	42.9%	Black	43.9%	male	58.8%	Black	58.7%
Female	57.1%	White	56.1%	female	41.2%	White	41.3%
Total	100.0%	total	100.0%	total	100.0%	total	100.0%

c. age of contacts

I. all respondents

The average age of the respondents was 33.54 years. The entire sample networked with contacts with an average age of 36.76 (Table 5.5). If the homophily principle was strictly adhered to, one would have expected a smaller



difference between contacts, since personal networks mirror a person's demographics. An individual may strive for increased diversity through more variety in his or her network and it would have been interesting to gauge the types of roles that the respondents and contacts fulfil for each other. In general the respondents networked with older people. It is important to note that the majority of respondents were below 40 which make a statement as to older respondents' preferences impossible. An age profile of each respondent's professional environment was unavailable, making further analysis dependant on fresh data.

II. race of respondents

There is a significant difference between the average age of contacts of White and Black employees (Table 5.23). This could be because of the age of respondents, which according to the tendency of similarity, means that people of similar age will network with each other. Black respondents were younger at an average age of 30.2 years and White respondents older at an average age of 36.9 years. The difference in age of contacts may therefore not lie in the race of respondents but rather their age.

III. gender of respondents

The contacts of male and female respondents did not differ significantly in age, but then the average age of male and female respondents did not differ greatly.

d. education level of contacts

I. all respondents

The majority of respondents reported networking with contacts similarly educated or more highly educated (Table 5.6). If the sample is split into different education streams of the respondents (Table 5.7), the situation appears as

follows: post-graduate sample of similar or lower education and respondents with tertiary degrees mostly with people of similar or higher education. This is not surprising as the people most highly qualified will not find people with more qualifications to network with and are left with similarly educated people or people with fewer qualifications as possible contacts. Having contacts with more disparate qualifications will be more beneficial (Cross *et al*, 2002).

II. race of respondents

No significant difference was found between the education levels of the contacts of White and Black respondents (Table 5.24). This may be an artefact of the practice of using MBA students to canvas respondents in their companies. A third of the entire sample reported contacts with higher qualifications and a third reported contacts with fewer qualifications.

III. gender of respondents

Female respondents significantly chose contacts with more qualifications than themselves while male respondents networked with people with similar education (45.2%, Table 5.42). Women network upwardly because women and minorities, as found by Ibarra (1995), aim to diversify their networks by having access to people outside of their specific minority grouping.

e. skill set of contacts

I. all respondents

Respondents mainly networked with similarly skilled people which bears out the homophily principle. Although most respondents networked with contacts similarly skilled, a large number also networked with less skilled and more skilled contacts which implied knowledge sharing up and down. A valuable input



in future research eral skills profile of the individual respondent's professional environment.

II. race of respondents

Both sets of respondents reported a higher incidence of networking with similarly skilled people (Table 5.25) and there was no significant difference between the two groups.

III. gender of respondents

Both sets of respondents networked mainly with similarly skilled people, above 45% (Table 5.43). Female respondents however also networked with people with more advanced skills, again highlighting diversification for development, interacting with a wider range of skills and experience than expected.

f. frequency of interaction

I. all respondents

There was an interaction of at least once a day with more than half of the contacts (Table 5.9). Since another 37% were in contact a few times a week the preference towards frequent engagement is clear. An interesting question would have been to study which types of relationships interacted less frequently, to distil a possible pattern.

II. race of respondents

Black respondents predominantly favoured contact once a day (59%, Table 5.26), while the interaction frequency of White respondents were more evenly spread between once a day (43.5%) and a few times a week (41.5%). One could speculate that the age differences in respondents accounted for the difference in terms of eagerness to network daily and that younger respondents



needed more frequent interactions. The reasons for networking could provide a clue as to why the differences occur - see section o.

III. gender of respondents

Female respondents largely favoured contact to occur once a day (56.6%, Table 5.44) while the interaction frequency of male respondents was more evenly spread between once a day (45.7%) and a few times a week (40.6%). Parallel to the race of respondents the findings show that frequent interaction was heavily favoured. The observation that female respondents interacted more frequently is substantiated by Hanson (2000) who found that women have more frequent connections than men. These differences approached statistical significance.

g. medium of interaction

I. all respondents

Face-to-face meetings epitomised the main medium of interaction between network participants in the sample. What is interesting though is that e-mail communication (24.7% Table 5.10) was second to unplanned face-to-face meetings (31.1%) with planned face-to-face meetings (23.4%) in third place. This is not surprising as e-mail, a tool still experiencing growth as a communication medium, contributes to the changing nature of social exchanges, roles and hierarchies (Licoppe and Smored, 2005). One benefit of using e-mail as a communications medium is that the recipient has the ability to respond if and when convenient. An important advantage for the senders is the opportunity to send a mail as soon as a query arises – they do not have to wait for a meeting time.



II. race of re

There was no significant difference between the medium chosen by Black and White respondents. Both groups reported unplanned face-to-face meetings as the medium occurring most often (Table 5.27), then planned face-to-face meetings and then e-mail in third place.

III. gender of respondents

Both sets of male and female respondents have unplanned face-to-face meetings as their first choice (Table 5.45) and planned face-to-face meetings as their second.

h. style of interaction

I. all respondents

By far the most popular styles of interaction occurred during working hours. Informal (36.6%, Table 5.11) and formal (30.9%) discussions were deemed the most popular. One must remember that respondents had to report details of their five most important contacts at work which makes meetings during working hours more likely. They could have selected other alternatives had they not been restricted to in-company contacts.

II. race of respondents

Black and White respondents reported a preference for interacting with their contacts during working hours, informally and then formally (Table 5.28). There was no significant difference between the two groups.

III. gender of respondents

Male and female respondents also reported that they prefer interacting with their contacts during working hours, informally and then formally (Table 5.46).

i. planned or unplanned

I. all respondents

70.1% (Table 5.12) of respondent and contact interaction were only planned sometimes, 20.1% never and 9.8% always. This supports the numbers in g and h above and indicates the prevalence of unplanned informal events. However research has shown that people increasingly plan the creation and the maintenance of their networks (Nardi, Whittaker and Schwarz, 2000).

II. race of respondents

Black and White respondents reported that they only plan engagements sometimes, with 26.7% of Black respondents and 13.7% of White respondents never planning encounters (Table 5.29). The propensity for unplanned interactions is statistically significant, which does not agree with the increasing deliberate nature of personal networking as described by Nardi, *et al* (2000).

III. gender of respondents

There was no significant difference between the two groups. Male and female respondents only sometimes planned their interaction with contacts (Table 5.47).

j. proximity to contact

I. all respondents

Table 5.13 shows that 42% of contacts were located within 10 metres of their respondents and 29% were on the same floor demonstrating that physical proximity remains an important bias in personal networks (Cross, *et al*, 2002).

II. race of respondents

There was no statistical difference between the two groups (Table 5.30). Both groups displayed the bias of proximity.



III. gender of

Female respondents reported that 46.5% (Table 5.48) were within 10 metres. Male respondents had a more equal split between those within 10 metres and those on the same floor. The majority of contacts were in close proximity. These differences approached statistical significance.

k. position of contact in relation to position of respondent

I. all respondents

Instead of the biases expected in terms of which the respondents should have networked with people in similar positions, most respondents networked with people in higher positions than themselves (46.9%, Table 5.14). A roughly equal number of respondents reported contacts occupying similar and lower positions. Note that although 46.9% of contacts were in a higher position than the respondents networking with them only 34.4% were more highly educated than the respondents. This may imply respect for power distance in the hierarchy rather than for more qualified people.

II. race of respondents

There was no real difference between Black and White respondents in terms of the position of their contacts (Table 5.31). Both networked with people higher in the hierarchy.

III. gender of respondents

Male and female respondents reported contacts in positions higher than themselves (Table 5.49).



I. function of contacts lent

I. all respondents

A small majority (54.4%, Table 5.15) reported that their contacts shared the same type of function as they did.

II. race of respondents

There was no significant difference between Black and White respondents. Both groups reported a high percentage of contacts sharing the same function as they did (Table 5.32).

III. gender of respondents

There was no significant difference between male and female respondents. Both groups reported that some of their contacts have similar functions and some reported different functions than themselves. Networking occurred with people in similar functions most of the time (Table 5.50).

m. department of contact in relation to department of respondent

I. all respondents

The majority of respondents (65.3%, Table 5.16) confirmed that their contacts worked in the same department as they did. Alderfer (1987) postulated that people in the same departments share similar world views. It is unclear if he meant that they shared similar world views and then joined the same department or if they were in the same department first and then came to share world views. Either way, building relationships with people in the same department may be a comfortable, comfort zone type of networking.

II. race of respondents

Thirty-eight out of 40 (95%, Table 5.33) Black respondents reported contacts in the same department and 19 out of 40 (47.5%) reported some of their contacts

to be in different departments 36 (90%) reported same department contacts and 37 (92.5%) different department contacts. Black respondents significantly preferred contacts in the same department while White respondents preferred contacts equally frequently in their department and not in their department.

III. gender of respondents

Male and female respondents reported having relationships with people in their own departments more often (Table 5.51).

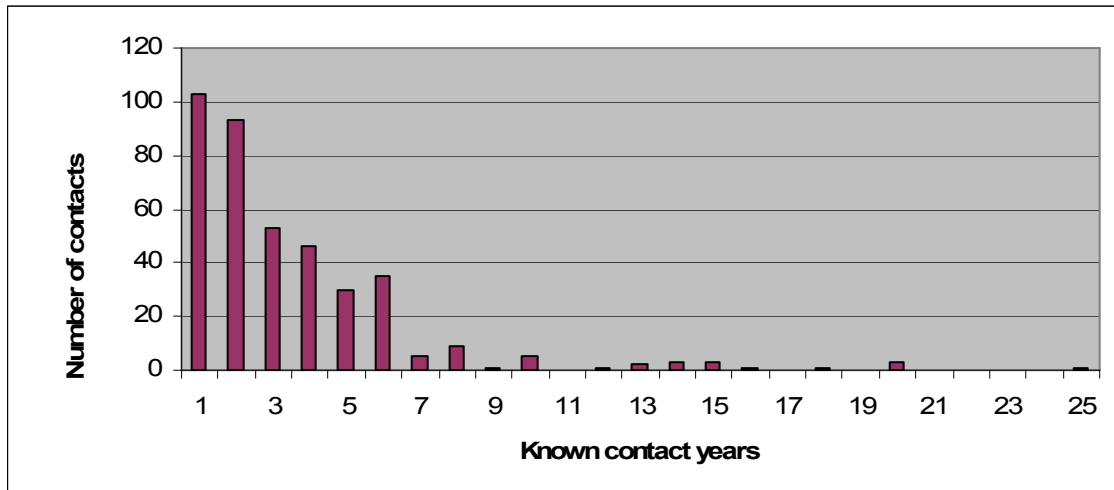
n. length of time known contact

I. all respondents

Interestingly, the respondents have known their contacts for an average number of 3.54 years (Table 5.17), while having worked for their current employer for an average of 6.29 years. One can assume that since they had to supply details of their 5 most important contacts this means that they had worked for their employers for 2 years on average before creating these relationships. The fact that the respondents have known their contacts for approximately half the average tenure of a position implies that, rather than immediately forming a static set of relationships, respondent networks have continually evolved. The histogram of number of contact relationships and length of time known (Figure 6.1) confirms the fluidity of networks as illustrated by Bidart (2005).



Figure 6-1 Histogram c number of years



II. race of respondents

Black and White employees have known their contacts for a significantly different number of years (Table 5.34). White employees have known their contacts for an average of 2 years longer than Black employees, which could be because of the differences in age, Black respondents were significantly younger than White respondents and Black respondents have also been with their companies significantly shorter than White employees (Table 6.1).

III. gender of respondents

Male and female respondents have known their contacts for roughly the same average number of years (Table 5.52). This is not surprising since their age means are similar and so also the average age of their contacts. They have also been with their companies for a similar number of years.

o. main reasons for interacting

I. all respondents

The reasons given for interaction with 224 (56%) of the contacts were technical advice and friendship and support (Table 5.18). Thereafter sound-boarding

(44.8%) and mentor s. The reasons shown as most important do not agree with the findings of Flap and Volker (2001) because instrumental aspects like career advancement and improving job security were fairly low on the rank order of reasons. The reasons agree though with Greve and Benassi (2003) in the sense that information or technical advice can be gathered from a wider set of dynamic sources so as to expand own usage and expand opportunities.

II. race of respondents

Black respondents indicated that friendship and support was the main reason why they networked with their contacts and White respondents reported technical advice as their main reason (Figure 5.5). These findings were significant. This agrees with the finding of Mtizira-Nondo (1997) which indicated that Black people participated more in socially based networking activities and Whites more with a business orientation. Black and White respondents had no real differences in their choices of technical advice and friendship and support but significant differences in terms of sound boarding and coalition building.

III. gender of respondents

Male respondents networked for technical advice and then friendship and support, while women networked for the same reasons but in reverse order (Figure 5.6). This agrees with the finding by Mtizira-Nondo (1997) that women tend to network more on a personal level.

p. feeling excluded from networks or not

I. all respondents

Respondents were asked if they felt excluded from participation in social networks in their companies and if so why. 45% (Table 5.20) of the respondents



indicated that they felt excluded. Race was given as the main reason for feeling excluded and it should be noted that both Black and White respondents indicated that as a reason. The same cohesive effects binding homogeneous networks may work against the integration of individuals with dissimilar characteristics (Ibarra, 1995). Of paramount importance is the fact that 45% of respondents felt excluded, a finding supported by the literature that race can act as one of the most divisive issues in personal environments (McPherson et al, 2001).

II. race of respondents

More than half of the Black respondents (55%, Table 5.35) indicated that they feel excluded from informal network participation in their companies. These differences between the races are approaching significance and more research will have to be done to examine these issues in detail. Only 35% of White respondents indicated that they felt excluded.

III. gender of respondents

The same situation occurs in the case of the gender sub-groups. More than half of the female respondents (55%, Table 5.53) indicated that they feel excluded from informal network participation in their companies. These differences between the genders are approaching significance and more research will have to be done to examine these issues in detail. Only 35% of male respondents indicated that they feel excluded. More detail as to the type of companies, the openness and history will have to be collected in order to achieve a better understanding of the reasons for these effects. The differences approached significance and because a small sample was used the likelihood of a type 2 error is higher which can lead to failing to reject the null hypothesis when it is in fact false. The levels of exclusion is definitely an area for future research



q. deliberate network

I. all respondents

Most of the respondents indicated that they only sometimes deliberately target people they want to build relationships with (Figure 5.3). Only 21% reported that they always network deliberately. This small percentage is surprising and diverges from the findings of Nardi, Whittaker and Schwarz (2000) who found that more and more people wield their social networks to get things done. The authors also found that rapid structural change forced workers to rely increasingly on their own social networks, which makes the creation and maintenance of these networks imperative.

II. race of respondents

The biggest percentage of White and Black respondents indicated that they only sometimes target people deliberately (Table 5.36). 12.5% Black respondents said they target deliberately and 30% of White respondents. Although these differences approached the level of significance they were not significant.

III. gender of respondents

Eighteen out of 40 male respondents (45%, Table 5.54) and 24 out of 40 female respondents (60%) deliberately target network contacts sometimes. 32.5% of male respondents target network contacts deliberately while only 10% of female respondents do the same. This is in conflict with the finding of Mtizira-Nondo (1997) that women network more intentionally than men because they feel that they have a disadvantage to make up. An extremely interesting issue comes to the fore in this regard, namely that, female respondents seem to act in a deliberate manner in other spheres but only 10% reported that they target network contacts deliberately.



r. preference for networking

I. all respondents

Most respondents seemed to have a preference for networking inside their current organisations (54%, Figure 5.4). Since the questionnaire requested people to give details of contacts only in their current organisations some of their contacts may not have been described.

II. race of respondents

There was no real difference between Black and White respondents in terms of preference to network inside or outside the organisation (Table 5.37). Both groups had a slight preference for networking inside.

III. gender of respondents

There was no real difference between male and female respondents in terms of preference to network inside or outside the organisation (Table 5.55). Both groups had a slight preference for networking inside.

6.5. Results in Terms of Race and Gender

Results analysed by race and by gender provide clearly observable discrepancies when comparing Table 5.38 and Table 5.56.

Eight areas revealed significant differences between the race groups: race, age, frequency, planning, proximity, department, length of time known and reasons for networking. The difference in degree of exclusion approached statistical significance. Because of the small sample a type 2 error was more likely which means that this result could be significant in a bigger sample and is therefore also discussed.

White respondents | contacts whereas Black respondents had more diverse contacts, almost 50-50 Black and White. Black women provided the major contribution to this result because they had more white contacts than black male respondents. This may have been caused by a double dose of racism and sexism experienced by Black women as explained by Johnson-Bailey and Cervero (2004).

Black respondents appear to have more diverse weak contacts at work, which makes the assumption that they have more strong ties in the community or at home not too farfetched. Burt (2000) describes the ideal form of networking as one where there is close-knit strong tie network in combination with a more distant network of weaker, diverse ties providing more variety in information. Weaker ties refer to acquaintances and friends (including colleagues) and stronger ties to family and very close friends (Sabatini, 2006). Because of greater balance in their networks Black respondents appeared to act like minorities. The literature supports the claim that Black respondents network in a more diverse manner because they intentionally improve their networks. They understand the importance of integration of racial and professional identity in network strategies. Despite the above only 12.5% of Black respondents indicated that they network deliberately.

Black respondents significantly preferred networking for friendship and support. This finding agrees with the results of Mtizira-Nondo (1997) of socially based networking.

More than half of the respondents are being excluded from network participation in their companies. This is important as exclusion is a key reason for turnover (Stephenson and Lewin, 1996).

Only three areas revealed significant differences between the gender groups. Gender, education and deliberate networking displayed statistical significant differences between the genders. The difference in terms of the degree of exclusion approached statistical significance.

The differences in networking in terms of the gender groups proved to be smaller than those between the race groups. This is supported in literature where gender is reported as a weaker divisive factor in personal environments than race (McPherson, *et al*, 2001).

Female respondents networked predominantly with more qualified people and therefore have more diverse networks because of various levels of expertise (Cross, *et al.*, 2002).

Male respondents networked significantly more deliberately than female respondents. Nardi, *et al*, (2000) refer to intentional networks - the spelling referring to the effort and deliberateness with which people create and maintain personal social networks.

The degree of exclusion may seem small but is extremely important. Clark (2006) report that 16 out of 21 women executives cited exclusion from male networks as one of their reasons for leaving.

6.6. Results: Con

Ibarra (1993) refers to emergent or informal networks alluding to the deliberate actions of network participants to network up, which is referred to in this report as aspirational networking. He also refers to planned patterns of relationship formation to enhance self interests.

The respondents were asked to provide details of their most important contacts inside their companies, which may indicate an inherent bias in the questionnaire. The effects of homophily is noticeable in the results collated. Homophily restricts free thought and intermingling (McPherson et al, 2001) while recreating redundant information (Hanson, 2000). In order to be successful, Ibarra (1995) advises that minority members (i.e. managers in SA) must develop the type of networks displayed by the majority. Where disparities between male and female respondents were observed the concomitant issue dissected by race displayed more variation, which is a finding substantiated by McPherson et al (2001).



7. CHAPTER 7: CC

7.1. Introduction

Businesses are faced with perpetual organisational change and therefore many organisations search for ways to increase agility. In South Africa demographic and psychodynamic forces adds more complexity to the business environment. A review of the literature affirms that diversity in social networks can aid alertness in organisations for improved operation and innovation. The existing research also provides evidence of a low level of heterogeneity in the social networks considered.

7.2. Main Findings

This project provides further evidence that social networks in South African companies substantially mirror informal networks described in literature from other countries.

Unplanned, frequent and informal engagements are the most popular. This supports the concept of serendipitous interactions described by Cross and Parker (2004). In addition, close proximity of networking members was found to increase the likelihood of unpremeditated meetings. Most of the respondents reported networking with contacts in the same function and in their own department. While proximity encourages serendipitous interaction, it may also act as a barrier to more diverse contacts.

In this light, barriers such as closeness and same function- and department networking may contribute to weaken innovation and reduce the ability of the organisation to rapidly sense environmental changes and appropriately respond

to them. This empowers networkers to link different networkers from divergent areas.

Most of the respondents networked with older people. Highly educated respondents networked with people with similar and fewer qualifications and lesser qualified respondents networked with similar and more highly educated people. The above leads to the following potential explanation: the younger, less educated respondents recognise their need for more support and are willing to seek it. On the other hand, the older, more educated respondents are willing to deliver such support.

Respondents slightly (52.7%, Table 5.3) favoured interacting with male contacts but predominantly (64.1%, Table 5.4) endorsed networking with White contacts. The respondents reported that their companies consisted of roughly the same number of White and Black employees. The same composition was valid for male and female employees. One reason for the anomaly could therefore be that there are more senior White employees than Black employees in the companies involved. This implies that knowledge and power are still concentrated White hands. Black respondents may act like minorities (still a minority in terms of management in business) in that they deliberately diversify their networks to get ahead (Ibarra, 1995).

The primary wished-for outcomes of networking activities were technical advice, and friendship and support. Putnam (2000) and Gladwell (2000) referred to increasing social interaction in the workplace signifying a concomitant reduction in after-hours social engagements.

The results also support the importance of networking as recognised by Nardi, Whittaker and Schwarz (2000).

In terms of race and gender specific networking it was clear that homophily is strongly present in South African business networks. There were more differences in the networking of White and Black respondents than between the networking of male and female respondents. Evidence suggests that Black respondents networked with equal percentages of Black and White contacts while White respondents networked with predominantly White contacts. In delving deeper into the numbers to explain the above it became clear that an anomaly presented itself between the networking of Black men and Black women respondents. This forms an interesting contrast with the international literature (Hanson, 2000) which shows that women in general have more diverse networks.

In addition, women and Black respondents reflected minorities, as described in literature dealing with business social networks in the United States (Ibarra, 1995). Women seemed to pursue knowledge by networking upwards, and Black respondents strove for more diversity in their networks by networking more than expected with White contacts. An alternative explanation may be that such minorities are structurally forced to network in that manner because of past disadvantages which manifests itself in a demographic under-representation in management ranks.

As mentioned above the primary reasons given by respondents for networking were to gain technical advice and friendship and support. Noteworthy though is

the difference between more political networking – White respondents indicated significantly more that they network for purposes of coalition building and sound boarding. Given that the respondents were not required to report their actual positions, interesting future research could possibly determine if networking reasons differ in terms of seniority of position.

A very small percentage indicated that they target people deliberately with whom to build relationships. Most respondents declared that they only sometimes target contacts for relationships. It seems that male respondents target more specifically than female respondents and that White respondents target more deliberately than Black respondents. This despite the evidence that female and Black respondents (as well as male and White respondents) networked with people in positions higher than themselves.

It is interesting to note that most respondents networked with people older than themselves which also reinforces upward networking.

An important finding was that almost half the respondents felt excluded from social network affiliation in their companies. This finding casts doubt on claims of successful social integration in many organisations. Black and female respondents reported a higher feeling of being excluded than the other groups. Exclusionary networks or experiencing exclusion from important company networks can have social and political ramifications including voluntary turnover (Stephenson and Lewin, 1996). Mtizira-Nondo (1996) referred to the perception of purposeful exclusion of Black employees by White employees, a notion, true or not, already damaging to collaboration. The Policy Coordination and Advisory

Services (2006) report this negatively perceived situation to be value systems of the old guard propping up racism and sexism. Companies need to pay attention to this potentially divisive situation. Finding a way to break through these barriers will assist in creating efficient and more diverse networks.

7.3. The Context Appropriate Support Exchange (CASE)

The findings lead to the construction of a process to stimulate and enhance social networks with aspirational and educational elements. The model provides a procedure for identifying and optimising real support flows in company networks.

7.3.1. The Background to the Model

Reflecting on the results the foundation of a model of knowledge sharing became apparent. Knowledge sharing appeared to be more intentional than the respondents admitted to. Most respondents networked with older people in higher positions than theirs. Highly educated people networked with similar and less qualified people while people with fewer qualifications networked with similar and more highly qualified people. Black respondents appeared to seek out the social networks of White colleagues. The most wished-for outcomes were technical advice and friendship and support.

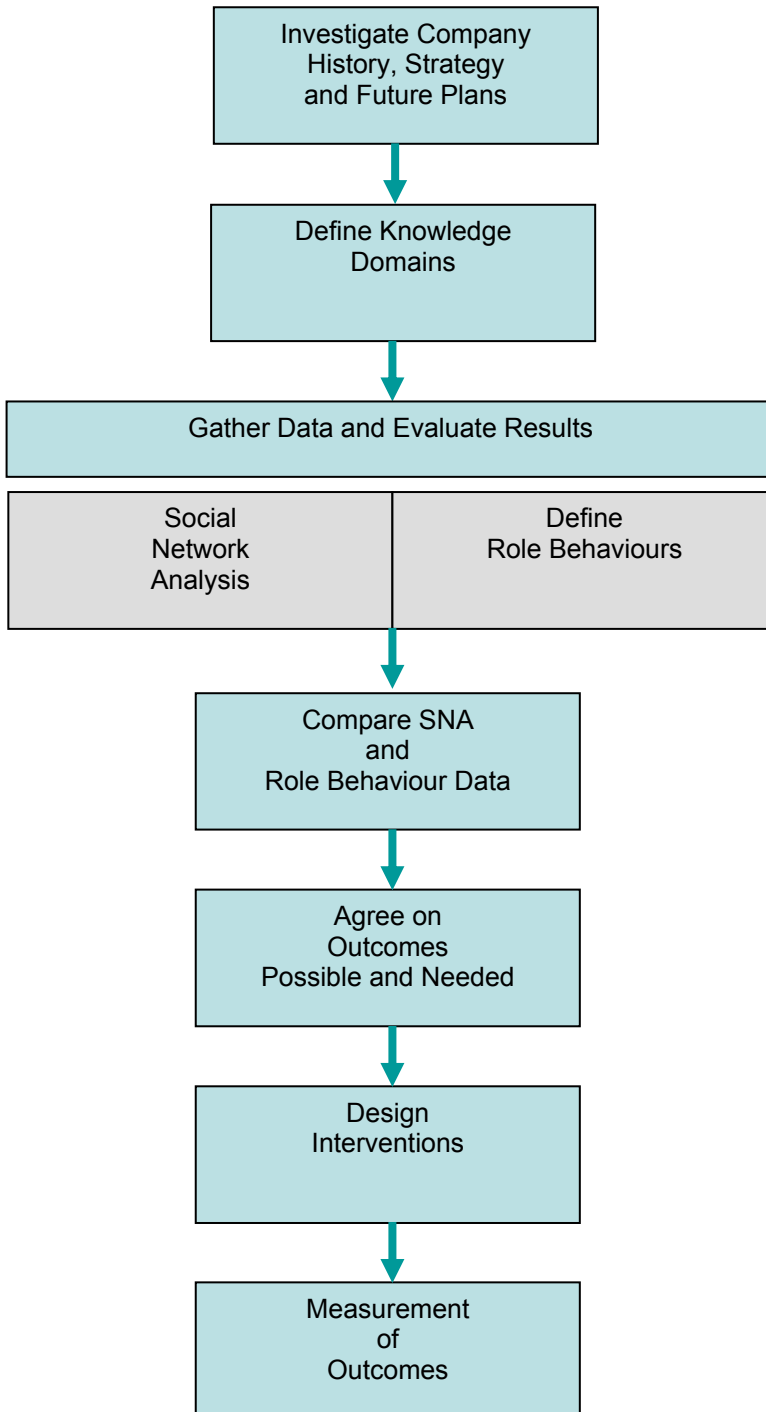
Knowledge sharing and support were executed in an upward and downward direction, which lead to the coining of two phrases: aspirational and educational networking. These two terms do not necessarily represent the outermost edges



of one continuum, b
in a relationship.

no streams of knowledge

Figure 7-1 The CASE model



The social network n of a context in which networks can proliferate (Cross *et al*, 2005, Ibarra, 1995). The context can be affected by environmental factors such as national culture (Tanaka, Takai, Kahyama, Fujihara and Minami, 1997), organisational level factors such as corporate culture, organisation structure, leadership behaviour, human resource- and work management practices (Cross *et al.*, 2005) and individual level factors in including personal circumstances.

Respondents satisfied their divergent information and support needs with different people. Clearly they did not consider one person an expert in all areas. The above and also literature indicate the learning and innovation creation ability of networks of contacts (Cross and Parker, 2004).

Since modification of social networks can be effected through context alteration, change theory provided the best approach. The CASE model (Figure 7.1) is a revision of the action research model described by Cummings and Worley (2005) infused with elements of the positive model (appreciative inquiry) (Cummings and Worley, 2005).

7.3.2. The CASE Philosophy

The approach objectively measures multi-dimensional support flows and contrasts the observed flows with context specific role demands. The model is a cyclical process depicted in Figure 7.1, commencing with data gathering for organisation research. The process has nine steps. The implementation of the model in a real world context is structured as follows:

7.3.2.1.

In order to form a clear concept of the context within which the social networks operate, various areas such as the history of the company, industry, strategy, human resource and work management practices and systems, company culture and future plans are investigated.

7.3.2.2. *Step 2 – Define Knowledge Domains*

This step commences by recognising context appropriate knowledge domains for the company, with reference to:

- nature of business
- life-stage, recent history and future plans of the company
- strategic intent
- people dynamics

Knowledge domains refer to different areas requiring expertise. Expertise is defined as the relative mastery a certain sphere of knowledge through academic studies, career experience or natural talent. Examples of such domains are:

- technical expertise (in field)
- technical expertise (other fields)
- mentoring
- organisational knowledge (tacit rules, company culture and history)
- career development
- talent management
- social skills

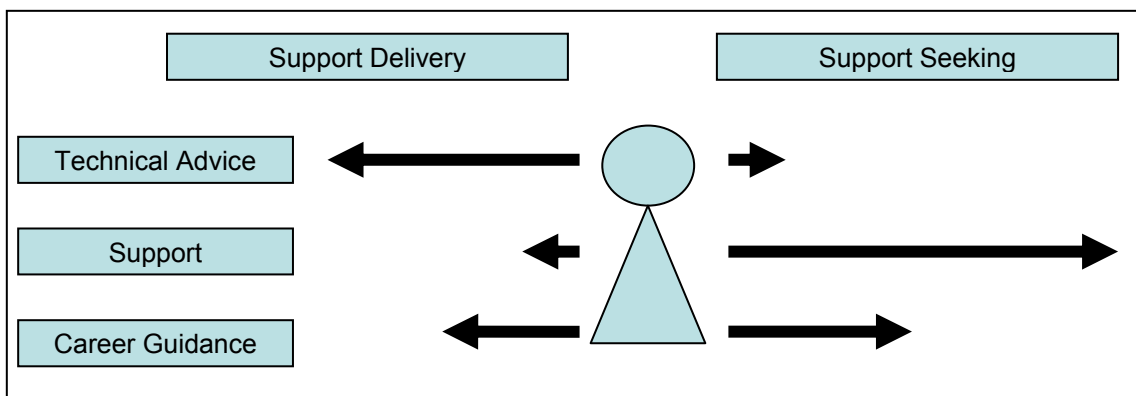
The professional then carries out a Social Network Analysis (SNA) to identify informal networks operating in the organisation. This step involves developing domain and context appropriate survey instruments (paper, electronic, face-to-face). The survey instruments prompt respondents to identify and rank the contacts they draw support and information from in the various knowledge domains. The survey may enable graphic representation of the support seeker lens of company networks, i.e. the form of the company social networks is reported from the perspective of people looking for support. The same information gathered thus is then transformed into a view of company social networks from the support provider perspective.

In the spirit of appreciative inquiry and action research, data is analysed to identify problem areas and areas that are working well. Positive natural dynamics are identified to be used in future creation and modification of networks.

Identify generic roles and categorise them according to appropriate support delivery behaviours e.g. along the domain of aspirational networking a general manager may be more appropriately positioned in a support delivery mode while the same manager in the domain of out of field technical knowledge may be in a support seeking mode. In contrast a new recruit may be support seeking along all dimensions or an engineering recruit support seeking in all dimensions but in field technical knowledge.

The relationship between expert and knowledge seeker can be typified by two potential simultaneous flows of knowledge i.e. support seeking and support delivering. The strength of each flow will be determined by a number of factors such as the level of expertise of the participants, the openness to knowledge exchange and the confidence to seek outside knowledge. The expert imparts knowledge to the seeker while at the same time assimilating some (maybe to a lesser extent) information from the seeker.

Figure 7-2 Streams of knowledge



7.3.2.4. Step 4 - Compare SNA Data and Role Behaviour Data

Step four therefore constitutes measuring the identified roles against the survey subjects observed. The results and inconsistencies identified can then be discussed with participants and appropriate interventions designed, if necessary.

7.3.2.5. Step 5 – Decide on Outcomes Possible and Needed

After the comparing SNA and Role Behaviour data decisions need to be made about possible and wished-for outcomes. The analysis must indicate where social capital is created or destroyed.

This step comprises the design of unique and context specific interventions for optimisation of the knowledge sharing networks. Examples of interventions are mentioned below:

- Create knowledge sharing sessions
- Implement individual mentorship of role incumbents
- Facilitate linking between important experts in the company through establishing shared contexts
- Reinforce successful behaviours
- Diversity training to increase self evaluation (Robbins, 2005)

In designing interventions, cognisance must be taken of the homophily principle discussed at length throughout this report. People must be encouraged to step outside of their age, gender and race specific networks to optimise their learning from others. In order for these interventions to work, it may be helpful to change the performance reward system to support the approach.

7.3.2.7. *Step 7 – Measurement of Outcomes*

Measurement of domains and role behaviours should be done frequently as relationships will continually evolve. Without prompting in a required direction the established relationships may become even more entrenched. The goal of this model is culture change. This necessitates strong leadership because culture is comprised of unconsciously accepted basic assumptions, and such assumptions are not easily changed (Schein, 2004). Habits entrenched through

social interaction and networks in an organisation, as explained by Schein (2004), must be supplanted into additional networks bound by new-found similarities between people.

7.3.3. Employee Centred Focus

The same model can be utilised when counselling individuals. A role and context appropriate support flow prototype per individual can be created, which may entail the following elements:

- identify the domains for the specific employee
- identify the expertise domain ranking of the employee
- identify the needs of the company for expertise in the various roles
- design an appropriate support seeking and delivering stance for the employee
- design a range of optimal support exchange behaviours and activities for the employee
- measure and adjust

7.4. Recommendations to Managers

The first recommendation to managers would be to facilitate the formation of networks actively. This does not mandate the specific relationships that need to be formed, but provides an organisational context wherein networks can form on their own, for instance by encouraging serendipity (Cross and Parker, 2004). Managers need to understand and provide for the interplay between member demographics, social networks and the environment (Cross and Parker, 2004).



A holistic approach to the management of social networks is necessary. While creating a contributive environment and context for interaction other matters must be integrated:

- human resource practices
- talent management
- on-boarding
- work management practices
- organisational structure
- leadership
- career development

Part of the holistic view or approach is the active involvement of various levels of business. By getting people to interact and integrate a subtle reward and punishment system can be reinforced. Granovetter (2005) referred to the fact that reward and punishment holds more sway when imposed by people known to the person. Social networks can be improved by studying three areas: contextual (environmental and organisational), individual level and stage/structure of networks.

Managers need to encourage diversity in informal company networks as diversity, despite adding complexity, can have the effect of non-redundant information being shared (Burt, 2000). The key recommendation is therefore to use the main enemy to diversity in social networks, namely homophily, to break through the confines of similarity networking. In other words mobilise homophily to fight homophily. Interventions around other points of similarity apart from race

and gender must education, experiences, adventure, conferences and others. Strata to form new groups should be promoted, for example, interests (such as music, movies, games and sport), places (such as where they work, studied, live, restaurants they frequent), life stage, age, environment and other shared experiences. One-off interventions will not be effective, social networks like diversity management; will require continual and fundamental changes to the organisational culture (Human, 1996). Having access to a broad range of relationships will ensure greater access to instrumental resources (Burt, 2000). Adaptability to each new situation, communication skills and enunciating the value of people are essential for diversity stimulation (Human, 1996).

Care must be taken to bolster more diverse and effective network connections where strategic payoff is needed (Cross, *et al*, 2002) as managing too many unnecessary contacts can be time consuming (Cross, *et al*, 2005). People should be drawn in by discussing their network maps, which can be determined by doing a Social Network Analysis (Cross and Parker, 2004).

A context where interrelation is effortless can be the impetus for developing shared values, trust and social reciprocity (Sabatini, 2006). To embolden connections, cooperation and innovation companies must become more permeable by striving to break down barriers to interactions, such as hierarchies and organisational silos (Beardsley, *et al*, 2006).

7.5. Recommendations to Employees

The literature indicates that informal networks play an important role in job satisfaction, performance and the reduction of turnover (Cross, Borgatti and

Parker, 2002). Research indicates that well-connected people are better performers (Cross and Parker, 2004) and have better access to job openings and career advancement. People with more diversity in their networks have better access to cutting-edge information (McPherson, Smith-Lovin and Cook, 2001). The case for maintaining personal networks is clear.

An individual can identify possible biases in his or her own network by gauging the similarity and geographical proximity of network contacts. If a substantial number of the contacts share the same race, gender, age, education, skill set or other distinguishing characteristic, a bias may be present. When one-sidedness has been diagnosed an individual can increase diversity by targeting people with dissimilar characteristics.

Cross and Parker (2004) reassure that personality is not a predictive factor of good social networking ability. Networking is important for all employees to acquire the information, guidance, feedback, and social support necessary for career success.

7.6. Future Research

The research under review attempted to capture a snapshot of typical South African business social networks. A longitudinal study can provide interesting information as people, networks and environments evolve over time. It will be extremely interesting to track individuals over a period of time, to assess if and how their networks change. Individuals may change their networking approaches and strategies, their reasons for networking and desired results over time.



An interesting extension of these findings and motivation for networking linked to seniority of position, subcultures in South African business, value systems and performance of employees.

The literature has shown innovation and social capital leading to business development to be consequences of successful informal networks (Beardsley, *et al*, 2006 and McPherson, *et al*, 2001). Future research can focus on a specific cost-benefit study calculating the monetary benefits of networking.

Another issue often appearing in the literature is the link between social networks and employee turnover (Mitchell, *et al*, 2001, Miller McPherson, *et al*, 1992 and Feeley and Barnett, 1997). A longitudinal project studying companies, their social networks and voluntary turnover may provide insight into such issues in South Africa. The type and structure of companies, structure and nature of social networks operating and individual and environmental issues involved will all have to be integrated.

An interesting investigation would be to study the possibility of accelerating the achievement of Employment Equity targets and probe the potential of social networks for retaining promising Employment Equity employees.

7.7. Conclusion

It is clear from the evidence presented in Chapter 5 that the homophily principle abounds in South African business. White people in business still predominantly associate with other White contacts. Social capital as the outcome of positive networking leading to competitive advantage will only be

achieved with a m specially in South Africa.

The findings suggest that social networks in South African business still play an exclusionary role and that there are many areas in which these networks may be improved to enhance integration and collaboration. Although this research is but a small beginning it points towards a topic of future research that may benefit business immensely. It seems that Black respondents are not as isolated as one may have thought but more than what one would have liked. However, there is room for improvement.

Einstein said that the formulation of a problem is often more essential than its solution. By doing a social network analysis and by being aware of the implications of bad integration and collaboration as well as aware of how networks operate in the South African environment, managers may be able to perform their duties according to the results of the analysis.



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APPENDICES

1. APPENDIX 1 – Final Questionnaire
2. APPENDIX 2 – Guide to Analysis



Appendix 1 – Quest

SECTION A		DEMOGRAPHIC DETAILS	
<i>Please tell us a bit about yourself. Fill in OR colour the correct answer.</i>			
	1/ age	<input type="text"/>	2/ gender <input type="checkbox"/> male <input type="checkbox"/> female
4/ highest level of education	less than matric	matric	tertiary qualification
	post graduate	5/ race <input type="checkbox"/> black	
		<input type="checkbox"/> coloured	
		<input type="checkbox"/> Indian	
		<input type="checkbox"/> white	
6/ nature of employment	full time	part time	7/ years with current employer <input type="text"/>
SECTION B OTHER INFORMATION			
<i>Please tell us a bit about your networking habits. Please fill in OR circle/colour the appropriate answer.</i>			
1/ do you intentionally target people that you want to build relationships with?			
<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> sometimes			
2/ for professional contacts, would you rather network inside or outside the organisation? (indicate your preference on the scale below)			
<input type="checkbox"/> only outside <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> only inside			
<i>Please tell us a bit about your work environment. If you work in a big company, please focus on your immediate department. If you work in a small company, consider the whole company.</i>			
Diversity of workforce			
3/ Please estimate the percentage of people in your company falling in the following categories:			
% females			
% white people			
% people over 40			
4/ does your company actively facilitate the formation of networks?			
<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4			
active facilitation		no facilitation at all	
5/ do you feel excluded from social networks at work because of your (you can circle more than one answer here)			
age gender race personality skill level experience I do not feel excluded other (please specify) <input style="width: 200px;" type="text"/>			



SECTION C		NE						
<p>We now would like you to provide details of your 5 most important relationships in your company , i.e. the people you most commonly interact with within your organisation. We have given an example of what the answers may look like.</p> <p>We suggest that you complete one person before moving on to the next.</p> <p>Please complete all 5 columns.</p> <p>Please circle OR colour in the appropriate answer.</p>								
			Example	1	2	3	4	5
Initials of person being described			AB					
a	gender of the person	f - female m - male	<input checked="" type="radio"/> f m	f m	f m	f m	f m	f m
b	race group of the person	b - black (include coloured and Indian) w - white	<input checked="" type="radio"/> b w	b w	b w	b w	b w	b w
c	approximate age of the person (estimate of age)		35					
d	approximate education level of person	A - lower than yours B - similar to yours C - higher than yours	A B <input checked="" type="radio"/> C	A B C	A B C	A B C	A B C	A B C
e	similarity of this person's skill set to yours?	A - more or less the same as yours B - some overlapping areas with yours C - not similar to yours at all	A <input checked="" type="radio"/> B C	A B C	A B C	A B C	A B C	A B C
f	how often do you interact with this person?	A - once a day B - a few times a week C - a few times a month D - a few times a year	A B C <input checked="" type="radio"/> D	A B C D	A B C D	A B C D	A B C D	A B C D
g	what is your main medium of interaction with this person? if you have more than one - please rank using the most important one on top	A - unplanned face-to-face meetings B - planned face-to-face meetings C - telephone D - e-mail E - instant messaging	C E A					
h	please mark your style of interaction (most frequent on top)	A - informal discussion during working hours B - informal discussion after working hours C - formal discussion during working hours D - formal discussion after working hours	D C B A					
i	is your engagement with this person planned?	A - never B - sometimes C - always	A B <input checked="" type="radio"/> C	A B C	A B C	A B C	A B C	A B C



NETWORK CHARACTERIST		Example	1	2	3	4	5
j	<p>what are your main reasons for networking with this person?</p> <p><i>tick appropriate reasons</i></p> <p>career advancement</p> <p>technical advice</p> <p>friendship and support</p> <p>mentorship</p> <p>coalition building</p> <p>to gain social acceptance</p> <p>sound boarding ideas</p> <p>improving job security</p> <p>to gain access to outside networks</p> <p><i>if you network for other reasons not mentioned above please indicate the reasons below</i></p>	<p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p>					
k	<p>what is your proximity to this person ?</p> <p>A - works within 10 metres of you</p> <p>B - same floor</p> <p>C - different floor</p> <p>D - different building</p> <p>E - different city</p> <p>F - different country</p>	<p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p> <p>F</p>	<p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p> <p>F</p>	<p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p> <p>F</p>	<p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p> <p>F</p>	<p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p> <p>F</p>	<p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p> <p>F</p>
l	<p>what is the position of this person in the organisation?</p> <p>A - higher than yours</p> <p>B - equal to yours</p> <p>C - lower than yours</p> <p>D - not applicable</p> <p>E - do not know</p>	<p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p>	<p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p>	<p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p>	<p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p>	<p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p>	<p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p>
m	<p>is the person in the same type of function as you?</p> <p>(secretary, management etc)</p> <p>y - yes</p> <p>n - no</p>	n					
n	<p>is the person in the same department as you?</p> <p>(marketing, accounting etc)</p> <p>y - yes</p> <p>n - no</p>	y					
o	<p>how long have you known this person?</p> <p>please state number of years</p>	3					
p	<p>which one of these 5 relationships is the most important to you?</p> <p><i>(please tick the appropriate one within the double lines)</i></p>	✓					
q	<p>why is he/she the most important?</p> <p>(please use the block provided to explain)</p>						
<p>THANK YOU FOR YOUR PARTICIPATION!</p>							



Appendix 2 – Guide

	Parameters	Section in Questionnaire			Type data	Type Question	Analysis
		All Respondents	Race of Respondent	Gender of Respondent			
a.	gender of contacts	C.a	A.5, C.a	A.2, C.a	nominal	m/f	Chi-Square
b.	race of contacts	C.b	A.5, C.b	A.2, C.b	nominal	1, 2, 3, 4	Chi-Square
c.	age of contacts	C.c	A.5, C.c	A.2, C.c	interval	value	Independent Sample Test (Levene and T-Test)
d.	education level of contacts	C.d	A.5, C.d & A.4, C.d	A.2, C.d	ordinal	likert scale	Chi-Square
e.	skill set of contacts	C.e	A.5, C.e	A.2, C.e	ordinal	likert scale	Chi-Square
f.	frequency of interaction	C.f	A.5, C.f	A.2, C.f	ordinal	likert scale	Chi-Square
g.	medium of interaction	C.g	A.5, C.g	A.2, C.g	ordinal	rank multiple choices	Chi-Square
h.	style of interaction	C.h	A.5, C.h	A.2, C.h	ordinal	rank multiple choices	Chi-Square
i.	planned or unplanned interaction	C.i	A.5, C.i	A.2, C.i	ordinal	ordinal scale	Chi-Square
j.	proximity to contact	C.k	A.5, C.k	A.2, C.k	ordinal	ordinal scale	Chi-Square
k.	position of contact	C.l	A.5, C.l	A.2, C.l	higher/lower		Chi-Square
l.	function of contact	C.m	A.5, C.m	A.2, C.m	yes/no	yes/no	Chi-Square
m.	department of contact	C.n	A.5, C.n	A.2, C.n	yes/no	yes/no	Chi-Square
n.	length of time known contact	C.o	A.5, C.o	A.2, C.o	interval	ratio scale	Independent Sample Test (Levene and T-Test)
o.	main reasons for interacting	C.j	A.5, C.j	A.2, C.j	nominal	multiple choice	Chi-Square
p.	feeling excluded from networks or not	B.5	A.5	A.2	nominal	multiple choice	Chi-Square
q.	deliberate networking or not	B.1	A.5	A.2	nominal	yes/no/sometimes	Chi-Square
r.	networking inside or outside organisation	B.2	A.5	A.2	ordinal	likert scale	Chi-Square



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