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The role of the psychological contract among blue-collar workers in the underground coal mining industry

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Abstract

This research focuses on the employment contract of low and unskilled workers in the underground coal mining industry in South Africa and aims to link the concepts of psychological contract, blue-collar workers, race and gender diversity.

Due to the recent economic crisis, mining companies are under pressure to increase productivity and reduce cost. It is therefore important for mining companies to understand and manage the employment contract of blue-collar workers in order to improve labour productivity and effectiveness.

Quantitative research was conducted among 179 low and unskilled workers in a major coal mining company by means of a modified Psycones psychological contract questionnaire.

The following key results were obtained:

- Employer obligations in the psychological contract for blue-collar workers in the underground coal mining industry are not fully met;
- Significant differences were found in the level of fulfilment of the psychological contract of Black males, Females and White males. The level of fulfilment for Black males is significantly lower than White males. Females have the highest level of employer obligation expectations.
- The level of fulfilment of the psychological contract decreases with length of tenure.

The results of the research confirms the importance of the fulfilling of employer obligations such as providing “opportunities to grow” and providing an environment to “work together in a pleasant way”.

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. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

Lars Steyn

11 November 2009

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*I lift up my eyes to the hills—
where does my help come from?*

*My help comes from the LORD,
the Maker of heaven and earth.*

Psalm 121:1 & 2 (NIV)

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1. Introduction

1.1 Problem Definition

The recent global economic conditions had a major impact on the local and international mining industry. The demand and prices for resource commodities dropped significantly and this is putting pressure on financial performance and cash reserves of mining companies. The Resources 20 Index of the Johannesburg Stock Exchange (JSE) experienced a 44% year-on-year reduction from February 2008 to February 2009 (JSE Weekly Statistics, 2009).

In a recent press release, Frost and Sullivan reported that South African mining companies would have to focus on improving productivity and cash conservation (Wonder Nyanjowa, 2009). Many mining companies will try to mitigate the reduction in income by reducing their labour cost. The Mining and Quarrying Industry experienced a decrease of 11 000 employees from September 2008 to December 2008 (Statistics South Africa, 2008). Mining Weekly reported that 9 000 workers risked losing their jobs in 2009 (Swanepoel, 2009).

The low and unskilled worker category, the so-called blue-collar workers (Lee and Mohamed, 2006), are more exposed to layoffs (Lucas and Buzzanell, 2004). Blue-collar workers constitute just under one third of the total workforce in South Africa (Lee and Mohamed, 2006).

In spite of the threat of large-scale job retrenchments, companies need to maximise their employees' commitment and engagement to become more effective and productive (Zhao, Wayne, Glibkowski, and Bravo, 2007). The employment relationship is an important element for achieving good productivity (Wöcke and Sutherland, 2008).

The demographics of the labour force in terms of race and gender are also changing under new employment equity and mining charter requirements. In the 2008 Mining Research Report of Landelahni Business Leaders, it was reported that the mining industry had overcome many of the employment equity challenges it faced (Ndaba, 2008).

These changes in demographics can have an impact on the effectiveness of current organisational practices. Human resource practices are one of the biggest contributors to the strength of the employment relationship (Aggarwal & Bhargava, 2009). Differentiated labour practices could be a requirement to ensure a committed and engaged labour force (Hausknecht, Rodda and Howard, 2008).

Often white-collar models are used to build performance management and other employment programmes, which do not necessarily meet the expectations of blue-collar workers (Lucas and Buzzanell, 2004). It is therefore important for companies to understand and manage the employment contract of blue-collar workers in their organisations - even more so in the current challenging economic climate.

1.2 Research Purpose

The purpose of this research is to improve understanding of the factors affecting the employment relationship of low and unskilled workers in the underground coal mining industry in South Africa.

The research aims to link the concepts of psychological contract, blue-collar workers and race and gender diversity. The research will assist companies in the mining industry improve their understanding of the employment contract with their low and unskilled workers. They will then be better informed and able to adapt their human resource practices and reward programmes to improve the fulfilment of the employment contract with their employees.

The improvement in the fulfilment of the employment contract of low and unskilled workers will be shown to lead to increased productivity and effectiveness (Wöcke and Sutherland, 2008; Zhao *et al.*, 2007).

2. Literature Review

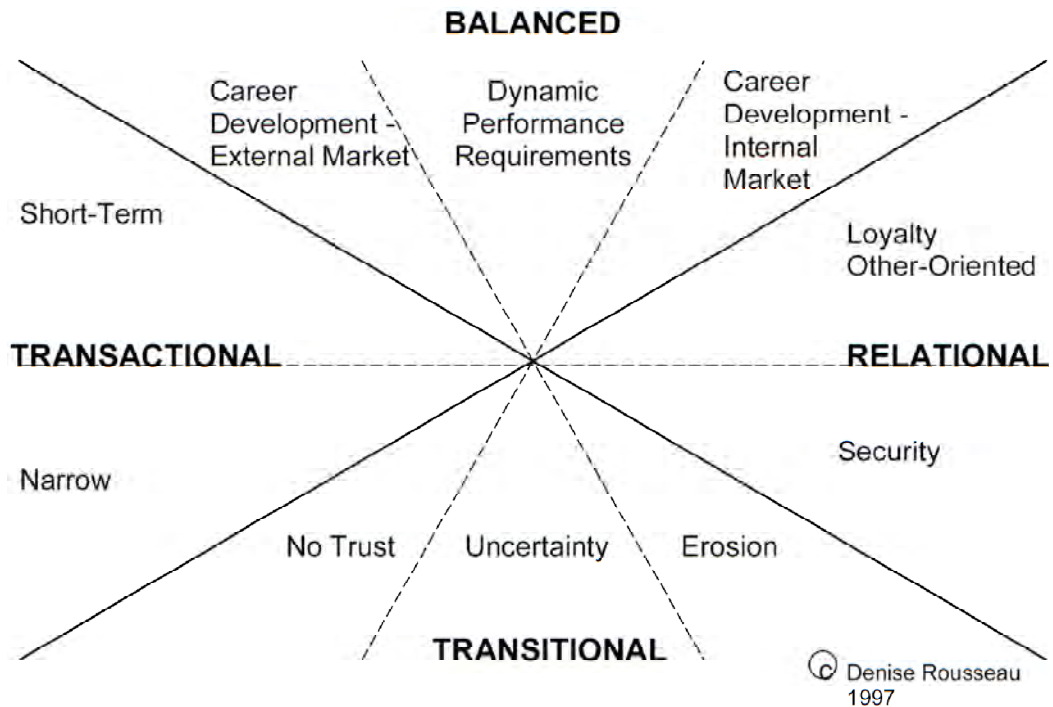
2.1 Psychological Contract

The psychological contract is understood as the expectations (Wöcke and Sutherland, 2008) an employee has of benefit, based on the employee and employer contribution to the employment relationship (Cole, 2004). "Psychological contracts are by definition perceptual and idiosyncratic" (Aggarwal & Bhargava, 2009).

A distinction is typically made between the relational and transactional features of the psychological contract (Beaumont & Harris, 2002). In a study by Atkinson and Cuthbert (2006), it was argued that managers might underestimate the impact of the transactional element of the psychological contract and focus too much on the relational element.

Figure 1: Psychological Contract on the next page is a schematic presentation of the elements of the psychological contract as described by Rousseau (2000).

Assessment of Psychological Contract



Rousseau (2000)

Figure 1: Psychological Contract

Organisations make changes in human resources practices in order to remain competitive and these changes have an impact on the employment relationship (Aggarwal & Bhargava, 2009). The psychological contract can be useful to measure and describe the impact of these changes on the relationship employers have with their employees (Wöcke and Sutherland, 2008; Zhao *et al.*, 2007).

2.1.1 Measuring the Psychological Contract

Rousseau (2000) notes three focus areas of psychological contract measurement. These focus areas are:

- Feature-oriented measures;
- Content of the psychological contract; and
- Level of fulfilment of the psychological contract (Rousseau, 2000; Freese and Schalk, 2008).

Feature-oriented measures compare certain dimensions and characteristics of the psychological contract (Rousseau, 2000; Freese and Schalk, 2008). Freese and Schalk (2008) argue that feature-oriented measurements are not the preferred way to measure psychological contracts.

“Content-oriented” measurements examine the specific terms of the psychological contract (Freese and Schalk, 2008, p.270). The level of fulfilment or “evaluation-oriented” measurements determines the extent to which each component of the psychological contract is fulfilled or violated (Freese and Schalk, 2008, p.271).

The Psycones questionnaire measures both the content and the level of fulfilment of the contents of the psychological contract (Isaksson, 2005). Isaksson (2005) describes the psychological contract in terms of the following elements:

- Employer obligations;
- Employee obligations;
- Violation of the psychological contract; and
- The state of the psychological contract (Isaksson, 2005).

2.1.2 Employer and Employee obligations

Isaksson (2005) reported that employee views of their obligations towards an organisation have a bigger impact on the job specific outcomes than the breadth of the contents of the psychological contract. **Figure 2: Employee and Employer Obligations** on the next page is a diagram that shows some examples of the elements of the psychological contract in terms of employer and employee obligations (Isaksson, 2005).



(Isaksson, 2005)

Figure 2: Employee and Employer Obligations

It was reported that the employer's perception of how employee obligations are fulfilled, are related to how satisfied employers are with the performance of their employees (Isaksson, 2005). Similarly, the employees' perceptions of how well the employer fulfilled their obligations were related to how satisfied the employees were in their jobs (Isaksson, 2005).

2.1.3 Violations of the psychological contract

A breach in the psychological contract impacts on work-related outcomes (Zhao *et al.*, 2007). The measure of psychological contract fulfilment, affects the employees' commitment towards the organization and employee turnover rates (Guerrero & Herrbach, 2008). Isaksson (2005) reported that the measure of fulfillment or violation of the psychological contract was the biggest mediator for a selection of outcome measures.

Aggarwal and Bhargava (2009) determined that managers relate unfulfilled elements of the psychological contract to resource constraints but employees tend to relate unkept promises to emotional attributes such as uncaring behaviour by management.

The diagram below shows six emotions related to the psychological contract (Isaksson, 2005):



Figure 3: Emotions related to the psychological contract (Isaksson, 2005)

A violation of the contract “corresponds to the feeling of anger, frustration and/or betrayal that may arise after the perception of a breach when the individual attributes the causes of the breach to the employer’s responsibility” (Guerrero & Herrbach, 2008, p. 5). Tallman and Bruning (2008, p. 707) suggests, “employees’ psychological contracts may be more emotionally based than cognitively based.”

2.1.4 State of the Psychological Contract

Aggarwal and Bhargava (2009) reported that human resource practices are one of the biggest determinants of the state of the psychological contract. The table below shows the dimensions describing the overall state of the psychological contract (Isaksson, 2005):

Fairly rewarded for the amount of effort put into a job
Extent to which senior management is trusted to look after employees' best interest
Organisational changes are implemented fairly
Trust the organisation to keep promises
Fairly paid
Trust line manager to look after best interests of employees
Fairly treated by managers and supervisors

Table 1: Overall Dimensions of the State of the Psychological Contract

The research will seek to further knowledge in the field of psychological contract theory by measuring and assessing the contents and level of fulfilment of the psychological contract of low and unskilled employees (Freese and Schalk, 2008) in the underground coal mining industry in South Africa.

2.2 Blue-Collar workers

The term blue-collar workers is used to describe workers doing low and unskilled labour (Lee and Mohamed, 2006) with very little scope for promotion to higher hierarchical levels in an organisation (Lucas and Buzzanell, 2004). A study by Borat (2000) showed that 72% of the labour force in the mining industry does not have a matriculation certificate. The same study indicated that only 15% of the labour force in the mining industry consists of professionals, managers and clerical workers (Bhorat, 2000).

The table below shows some characteristics differentiating blue- and white-collar workers:

Blue-collar Workers	White-collar Workers
"A manual or industrial worker" (Hawkins, 1983, p. 64)	Not involved in "manual labour" (Hawkins, 1983, p. 774)
Little scope for promotion (Lucas and Buzzanell, 2004)	"Office worker" (Hawkins, 1983, p. 774)
Low to unskilled work (Lee & Mohamed, 2006)	More oriented towards services (Beaumont & Harris, 2002)

Table 2: Characteristics of Blue-Collar and White-Collar Workers

It has been found that job level differences exist in the transactional and relational elements of the psychological contract (Hausknecht *et al.*, 2008). Differences were found in expectations regarding training, between blue and white-collar employees (Aggarwal & Bhargava, 2009).

Exploratory qualitative research by Lee and Mohamed (2006) provides some understanding of the psychology of blue-collar workers; but due to research methodology limitations, additional research is required in this field. This research will use the elements of the psychological contract to add to the understanding of the employment contract of low and unskilled workers.

2.3 Demographics

In the early 1900s, the division in the workforce in the coal mining industry was based on gender and race (Alexander, 2007). Women were prohibited from working underground by the Mineral and Works Act (Alexander, 2007). The number of white miners “fluctuated between four and seven percent” (Alexander, 2007, p. 212). The main task of white miners was to supervise teams consisting of black males (Alexander, 2007). In 2004, white males represented 82% of management and only 13% of the workforce (Chia-Chao & Krugel, 2004).

Following the first democratic elections in South Africa in 1994, the government enacted various laws to address the inequalities of Apartheid (Mohamed & Roberts, 2008). The Employment Equity Act (55 of 1998) and Mining Charter require mining companies to implement affirmative action in recruitment policies and practices (Hamann, Khagram & Rohan, 2008).

Since the implementation of the Employment Equity Act and Mining Charter, the demographics of the labour force in the mining industry changed (Ndaba, 2008). The 2008 Mining Research Report of Landelahni Business Leaders reported that the mining industry had made progress in terms of gender and employment equity (Ndaba, 2008).

Wöcke and Sutherland (2008, p. 532) maintain that there are three distinct “social identities” in South Africa: “White males, Africans and a middle group consisting of White females, Coloureds and Indians”. They found significant differences in the psychological contracts amongst the three identities (Wöcke and Sutherland, 2008). Cole (2004) found some differences in the psychological contracts of Female, White male and Black male knowledge workers.

Lee and Mohamed (2006, p. 59) found that “demographic differences in attitudes and perceptions” were not significant but reported that a bigger sample was required before conclusive findings could be made (Lee and Mohamed, 2006). Differences were found in the psychological contract of male and female employees in terms of personal development (Aggarwal & Bhargava, 2009).

The research aims to further knowledge in the field of psychological contract theory by assessing differences in the psychological contracts of Black males, White males and Females in the low and unskilled labour segment in the underground coal mining industry.

2.4 Tenure of employment

It is argued by Battu *et. al.* (2002) that longer tenure is an indication of a better match between employee and employer expectations. The employment contract characteristics changes with tenure (Battu *et. al.*, 2002). It is stated that tenure affects the employment contract and the employment contract affects tenure (Battu *et. al.*, 2002).

Lee and Faller (2005) reported that the relational aspect of the psychological contract increases significantly after six months and continues to increase over length of tenure. Relational aspects of the psychological contract include stability from the organisation and trust, loyalty and commitment from the employee (Rousseau, 2000; Lee & Faller, 2005). Isaksson (2005) on the other hand, reported slightly higher levels of satisfaction in terms of the psychological contract for temporary workers than for permanent employees.

2.5 External and Internal Rewards

“Internal rewards are obtained by individuals when they learn (knowledge of results) that they personally (experience responsibility) have performed well on a task that they care about (experience meaningfulness)” (Robbins & Judge, 2007, p 227).

Hennequin (2007) argues that even though blue-collar workers do not often get promotions into the hierarchy of organisations, they develop competencies and gain a reputation from their colleagues. This is different to the normal standards of success amongst white-collar workers of “opportunities for upward mobility” (Hennequin, 2007, p. 566). The reputation they gain from their colleagues shows characteristics of the meaningfulness as described by Robbins & Judge (2007, p. 227).

Hennequin (2007) and Lucas and Buzzanell (2004) argues that blue-collar workers are also looking for some level of internal reward through the reputation and relationships they build with their colleagues. De Klerk, Boshoff and Van Wyk (2009) hold an apposing argument that blue-collar workers care less about having work with a purpose than white-collar workers.

Atkinson and Cuthbert (2006) draw a distinct difference between relational and transactional contracts. Their definition of transactional contracts is “monetizable exchange between parties over a finite period of time” (Atkinson and Cuthbert, 2006, p. 649). Their definition of relational contracts is “open-ended, less specific agreements that establish and maintain a relationship” (Atkinson and Cuthbert, 2006, p 649).

According to on Atkinson and Cuthbert’s definition, it can be concluded that external rewards relate to transactional elements and internal rewards relate more to relational elements of the psychological contract.

2.6 Illiteracy and Language Barriers in the Mining Industry

In a research study in a platinum mining organization by Holtzhausen and Fourie (2008), it was determined that 63.78% of the stratified sample of 508 employees could understand English and only 50.98% of the total sample could read English. Van Eeden and Mantsha (2007) also highlighted the difficulties of translating personality preference questionnaires into African languages.

The questionnaire of the Holtzhausen and Fourie (2008) research project was translated from English into Setswana. The scale of the questionnaire was reduced to a four-point scale as apposed to the traditional five or seven-point Liker-type scales. During the sampling, the language and illiteracy problems were overcome by using facilitators to assist illiterate employees complete the questionnaire (Holtzhausen & Fourie, 2008).

3. Research Hypothesis

This research will investigate the role of the psychological contract among low and unskilled workers in the underground coal mining industry in South Africa.

Research Hypothesis 1: The psychological contract requirements of low and unskilled workers in the underground coal mining industry are not fully met.

Research Hypothesis 2: The transactional element of the psychological contract for blue-collar workers in the underground coal mining industry is not more significant than the relational element.

Research Hypothesis 3: The content change and the measure of fulfilment of the psychological contract for blue-collar workers in the underground coal mining industry, increases with length of tenure.

Research Hypothesis 4: There are differences in the psychological contracts of Black males, White males and Females in the low and unskilled labour force in the underground coal mining industry.

4. Research Methodology

4.1 Research Design

The psychological contract is a concept that has been in existence since 1960 and has been extensively researched and published (Freese and Schalk, 2008). Because the psychological contract has been extensively researched, exploratory research was not applicable to this research project (Zikmund, 2003). The psychological contract is intangible, but there are a number of ways to measure its content and level of fulfilment (Freese and Schalk, 2008).

This research is a descriptive study, since there is a good theory base for the concept of the psychological contract (Zikmund, 2003). A large number of quantitative questionnaires have been developed to measure different aspects of the psychological contract. Freese and Schalk (2008, p. 282) listed eight different evaluation tools for the “psychological contract”.

The research methodology was a quantitative descriptive study, which used questionnaires issued to a representative sample of low and unskilled workers in the underground coal mining industry in South Africa.

4.2 Unit of Analysis

The unit of analysis consisted of low and unskilled employees of a major coal mining company working in a large underground coal mine in South Africa.

The graph below shows the percentage of low and unskilled workers in the coal mining company:

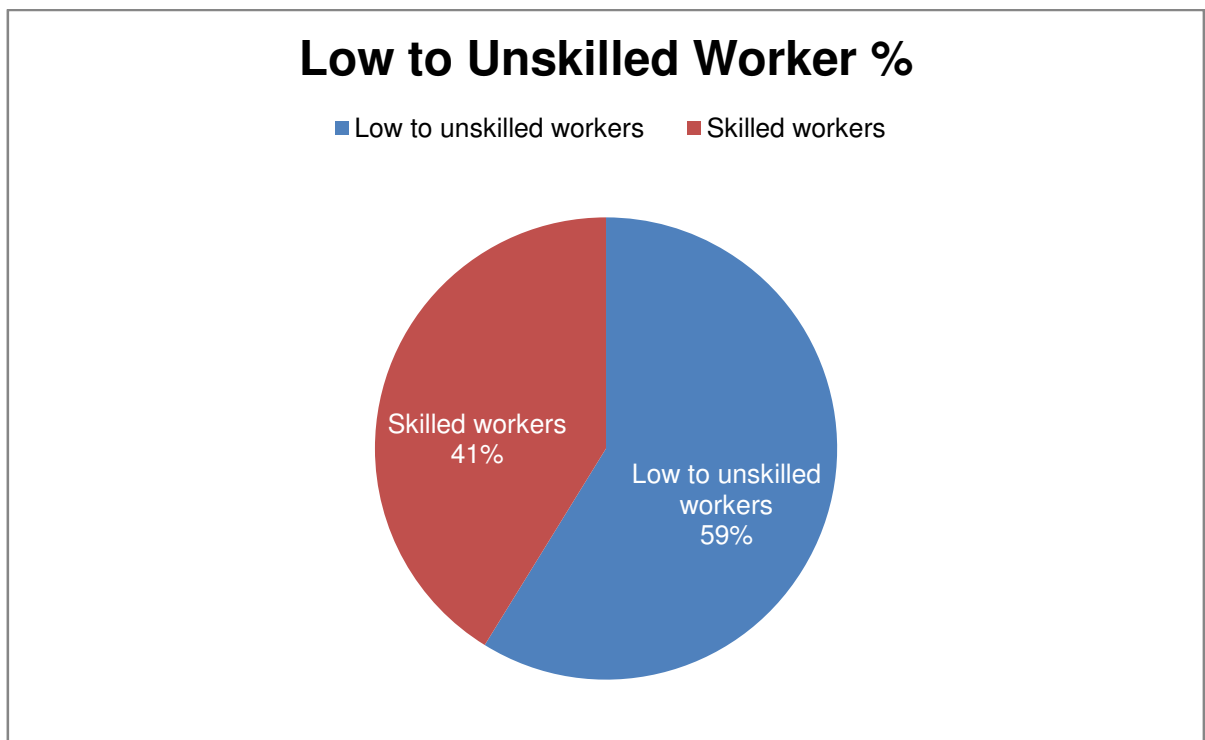


Figure 4: Low and unskilled worker percentage in the target organisation

The high percentage of low and unskilled workers in the target organisation confirms the need for this research in order to understand the psychological contract amongst the low and unskilled employees in the organisation.

4.3 Population

The population for the research consisted of the low and unskilled employees working underground for a large coal mining company in South Africa.

The graph below shows the number and the percentage representation of employees of the three demographic groups in the total population:

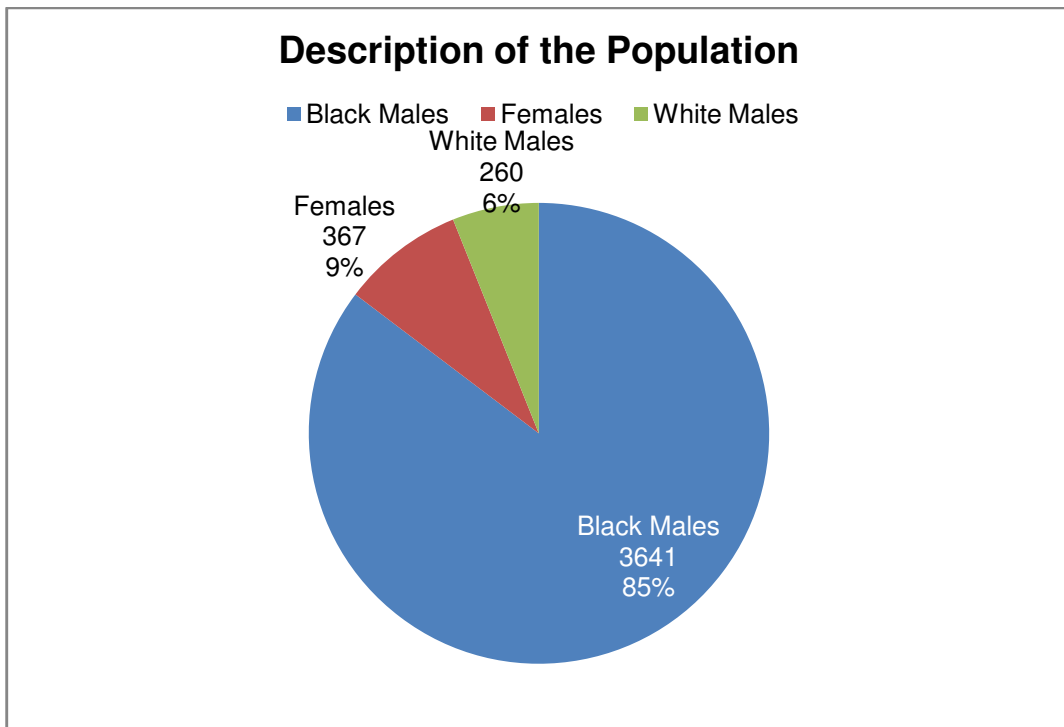


Figure 5: Description of the population

4.4 Sampling method and size

The convenience sample in an exploratory research by Lee and Mohamed (2006) resulted in the sample of some of the demographic groups being very small. The sample for this research was a non-probability sample (Zikmund, 2003) and participants to the survey were selected randomly. A minimum quota on the number of respondents from each of the three demographic groups was targeted to ensure that statistical inferences could be drawn for each of the demographic groups.

The three demographic groups are:

- Black males;
- Females; and
- White males.

The sample for this research project was designed to include at least 30 representatives from each of the three demographic groups. The sample was taken from one underground coal mining company consisting of five underground coalmines.

Very little research has been done in the blue-collar segment of the labour force in South Africa because of illiteracy and language differences (Lee and Mohamed, 2006). Communication facilitators were used to assist illiterate employees and those not conversant in English to complete the questionnaire.

4.5 Research Instrument

Freese and Schalk (2008) used seven criteria to evaluate existing questionnaires to measure the psychological contract. Freese and Schalk (2008) recommended the use of the “measurement instruments” from one of the authors below to measure the psychological contract:

- Freese and Schalk, 1997;
- Psycones, 2005;
- Rousseau, 1990; and
- Rousseau, 2000 (Freese and Schalk, 2008, p.281).

Both the Psychological Contract Inventory and the Psycones questionnaire are available in the public domain. The PCI was developed by Rousseau (2000), and is a tool to measure and assess the content of the psychological contract. The tool is based on “a conceptual framework grounded in organizational theory and research (Rousseau, 2000, p. 2). The PCI questionnaire consists of 73 questions to be answered on a 5-point Liker-type scale (Rousseau, 2000).

The Psycones research was done in Israel and six European countries (Isaksson, 2005). An inductive and theory based questionnaire was developed to measure the psychological contract across industry boundaries for the Psycones research project (Freese and Schalk, 2008). The Psycones research sample included 23.5% unskilled blue-collar workers (Isaksson, 2005).

The Psycones questionnaire contains 45 questions to be answered on a 6-point Liker-type scale (Isaksson, 2005). Each heading of the questionnaire also allows for qualitative comments from the participants for further clarification of the choices they made on the questionnaire.

The Psycones questionnaire was used for this research because it has been used across different industries as well as for blue-collar workers (Isaksson, 2005). In addition, the Psycones questionnaire has fewer questions to be answered, when compared to the PCI questionnaire. This made it easier to conduct a quantitative survey among illiterate people with the help of an interpreter.

The Psycones questionnaire covers the following main elements of the psychological contract:

- Employer obligations;
- Employee obligations;
- Emotions concerning the psychological contract; and
- The state of the psychological contract (Isaksson, 2005).

4.6 Pilot Survey

A “pilot study” (Freese and Schalk, 2008, p. 274) was conducted to validate the sampling tool and sampling technique for this research. The pilot sample consisted of one representative from each of the three distinct demographic groups. The pilot study sample was a convenience sample. One of the Communication Facilitators who assisted with the final survey conducted the pilot survey.

During the pilot survey, it became evident that the number of scales in the original questionnaire was too complex for the illiterate employees in the pilot sample. In a study by Holtzhausen and Fourie (2008) among illiterate employees in the platinum mining industry, a 4-point Likert-type scale was used for quantitative questionnaires. The Psycones questionnaire was therefore adapted to a 4-point scale for this research.

The structure of the original Psycones questionnaire also proved to be problematic. The Psycones questionnaire has four main headings with a minimum of six and a maximum of 17 sub-questions under each of the main headings. The sub-questions were structured around a statement made in the main heading only. Some of the participants of the pilot survey lost track of the link between the sub-questions and the main heading. The structure of the questionnaire was subsequently adapted to repeat the main heading statement in each of the sub-questions.

The pilot survey highlighted problems in translating the questions into the mother tongue of the participant by the Communication Facilitator. The use of Communication Facilitators (Holtzhausen & Fourie, 2008) proved to be effective during quantitative sampling with questionnaires among illiterate employees. The questionnaire for the research project by Holtzhausen and Fourie (2008) was translated into English and Setswana. It was decided to translate the Psycones questionnaire into IsiZulu. This ensured a more consistent translation by the Communication Facilitators during the sampling. The pilot surveys were all completed within 15 minutes.

4.7 Data Analysis

Descriptive and inferential statistical techniques were used to describe the characteristics of the population, based on the characteristics of the sample (Zikmund, 2003).

4.8 Limitations of the research

This research was not a longitudinal study (Wöcke and Sutherland, 2008). The research therefore did not attempt to clarify cause-and-effect relationships among the elements of the employment contract.

The tenure of employees was used in this research to measure and draw inferences on how the contents and fulfillment of the psychological contract changes over time. A longitudinal study with the same sample, would probably have given better insight into how length of tenure affects the psychological contract (Lee & Faller, 2005).

The study was conducted in one large underground coal mining company. The question remains whether the results of this study can be generalised for blue-collar workers in other mining companies or blue-collar workers in general (Isaksson, 2005).

5. Results

5.1 Return Rate and Sample Size

The questionnaires were issued with the help of Communication Facilitators and a 100% return rate was achieved. The total sample consisted of 179 respondents. The graph below shows the number and percentage representation of each of the three demographic groups in the total sample:

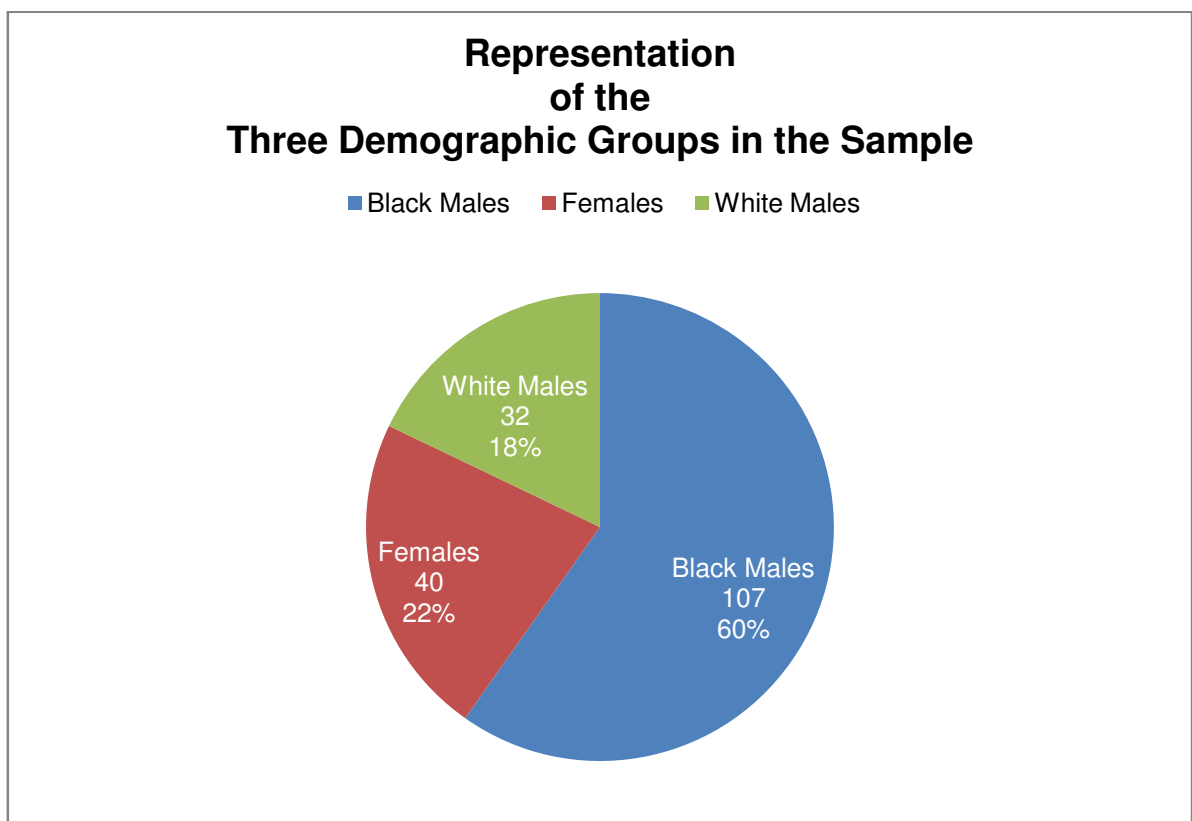


Figure 6: Three demographic groups in the sample

The graph below shows the ethnic distribution in the Female sample:

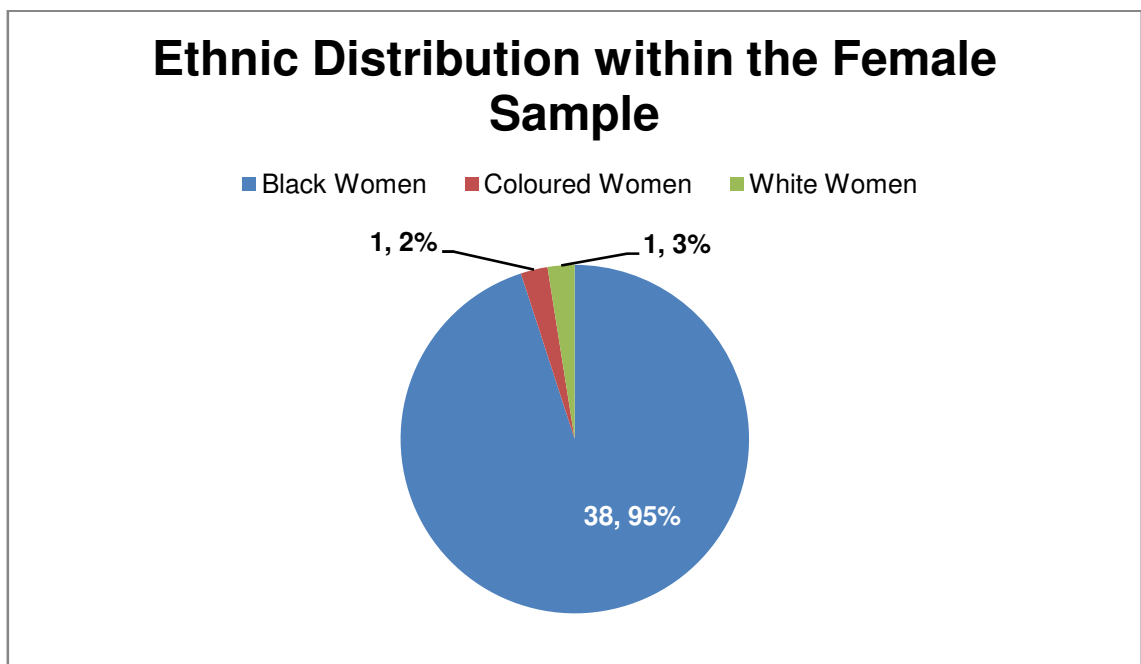


Figure 7: Ethic Distribution of the Female Sample

The female sample consists predominantly of Black females, 95% (38 out of 40 respondents). The high representation of Black females in the sample mitigates the impact of race on the results for the Female sample. The results of the Female sample can be contrasted with the Black male sample to consider differences or similarities based on gender and not race.

5.2 Omissions

The average omission percentage for the sample is 3.7%. This is higher than the omission percentage for the original Psycones research of 1.46%. The graph below shows the percentage omissions for each of the three demographic groups that participated in the research:

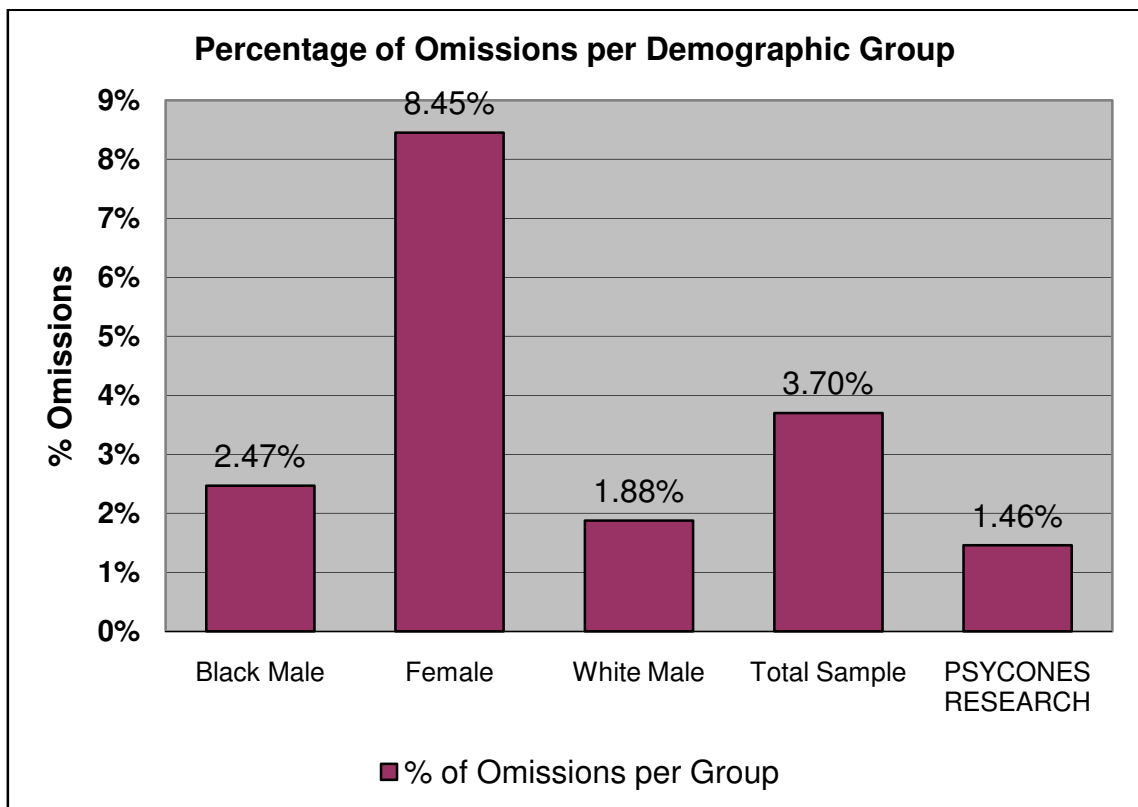


Figure 8: Percentage Omissions per Demographic Group

It is evident from the above that the omissions from the Female group are significantly higher than that of the other two groups. The omissions from all three groups exceed the percentage omissions from the original Psycones research (Isaksson, 2005).

The omissions of respondents, who left out four or fewer answers, were replaced with the demographic group average for those specific questions. Demographic group refers to Black male, White male and Female. Respondents, who left out more than four questions, were excluded from the analysis for employer and employee obligations. Emotions and the state of the psychological contract have fewer questions and respondents who left out more than two questions were excluded from the analysis.

5.3 Hypothesis 1: State of the Contract

5.3.1 Results for the four main elements of the psychological contract

The following two graphs describe the four main elements of the psychological contract for the total sample as viewed by the respondents:

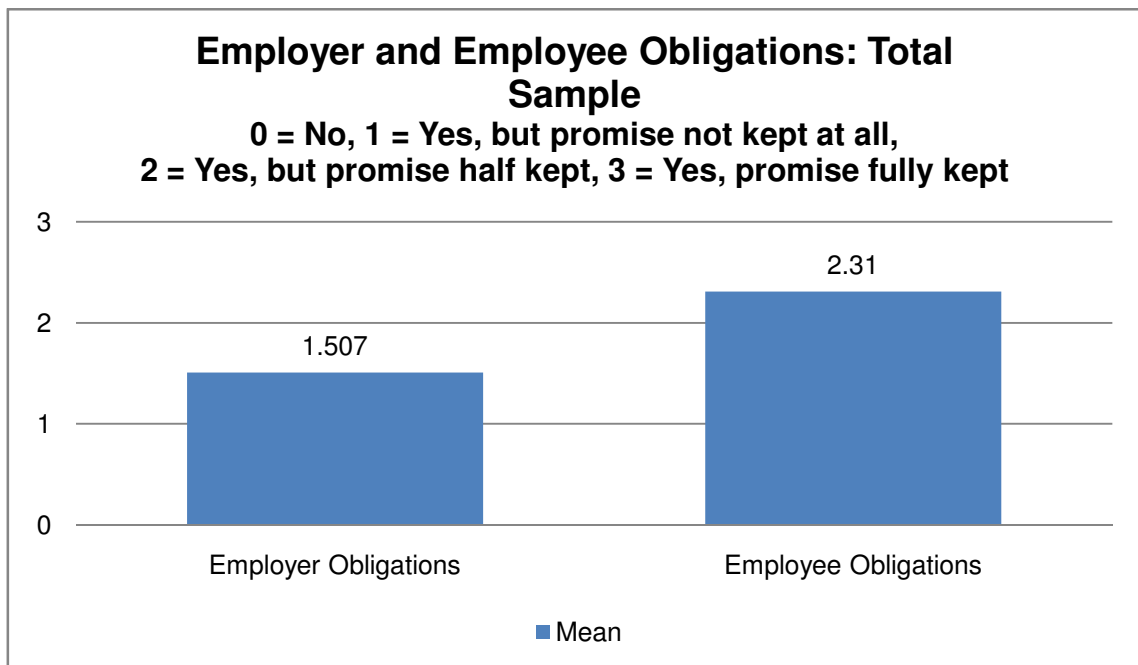


Figure 9: Employer and Employee Obligations: Total Sample

The graph above shows that employer obligations are between one and two on a four-point scale. Respondents view employer obligations as something between promises "not kept at all" and promises "half-kept". The level of fulfilment of the employer obligations of the psychological contract is low.

Respondents view employee obligations as something between “promises half-kept” and “promises fully kept”. The level of fulfilment of the employee obligations towards the organisation as viewed by respondents is high in comparison to employer obligations.

The graph below shows the emotions and the state of the psychological contract for the total sample. The closer the mean is to four, the more positive the emotion or state of the psychological contract.

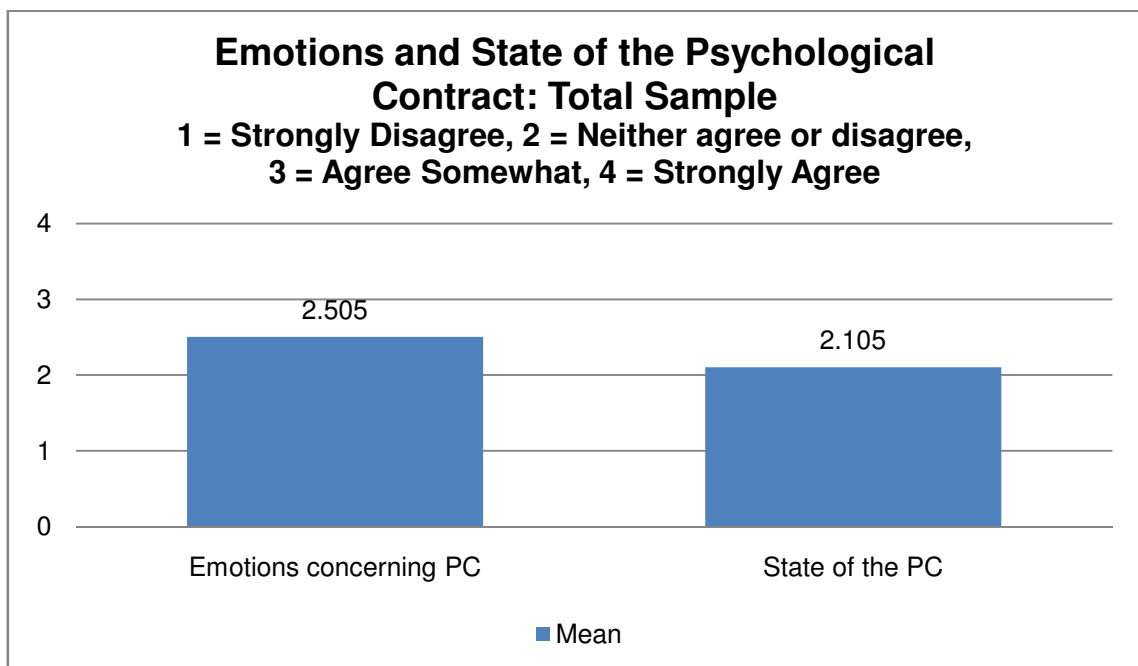


Figure 10: Emotions and State of the Psychological Contract: Total Sample

Respondents view both the emotions and the state of the psychological contract as something between “neither agree or disagree” and “agree somewhat”.

5.3.1.1 Employer Obligations

The graph below shows the detail of employer obligations per question. The full questionnaire can be seen in **Chapter 9.2 Questionnaire**.

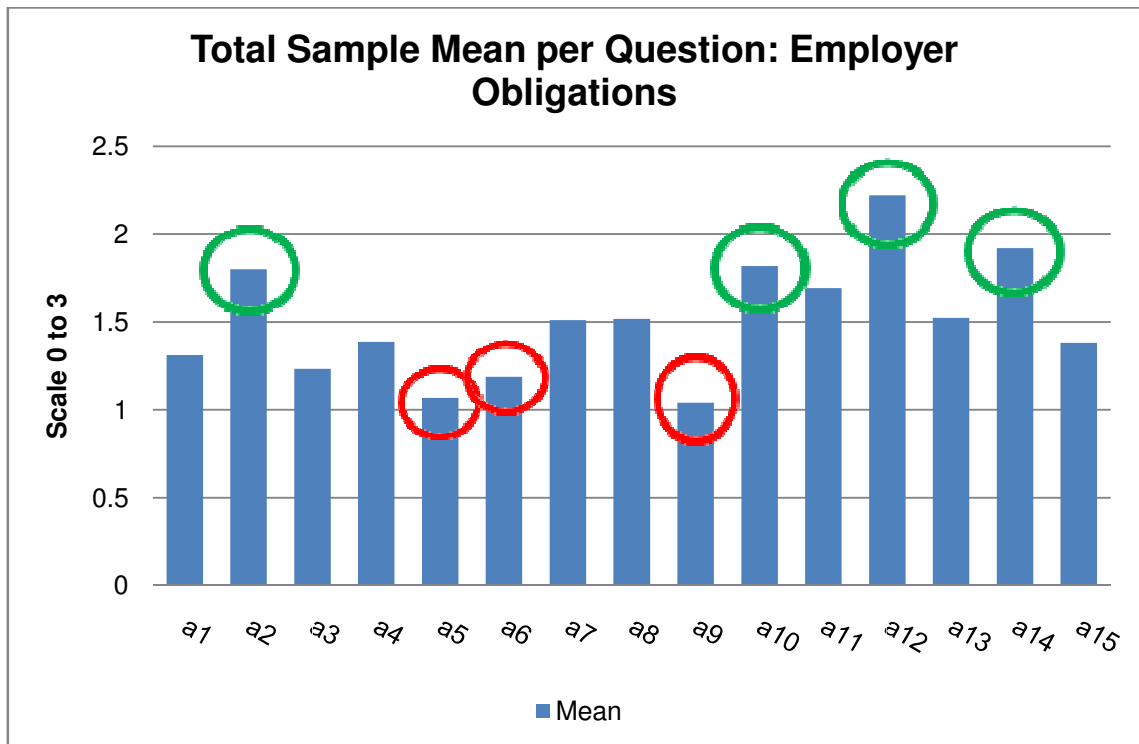


Figure 11: Total Sample Mean per question for Employer Obligations

The three lowest scoring employer obligations are “participate in decision-making”, “provide employee with a career” and “flexibility towards non-work roles of employees”. A low score indicate that the element is either not much part of the employer obligations of the psychological contract or the obligations are not fulfilled.

The four highest scoring employer obligations are “providing a reasonable secure job”, “working together in a pleasant way”, “providing a safe working environment” and “provide an environment free from violence and harassment”. A high scoring element means that the employer obligations of the psychological contract are fulfilled for that particular element.

The respondents have indicated that the organisation’s promise of a safe working environment is between “half-kept” and “fully-kept”. Respondents have indicated that the organisations’ promise of a reasonable secure job, a pleasant working environment and an environment free from violence and harassment is between “not kept at all” and “half-kept”.

5.3.1.2 Employee Obligations

The graph below shows the detail of employee obligations per question:

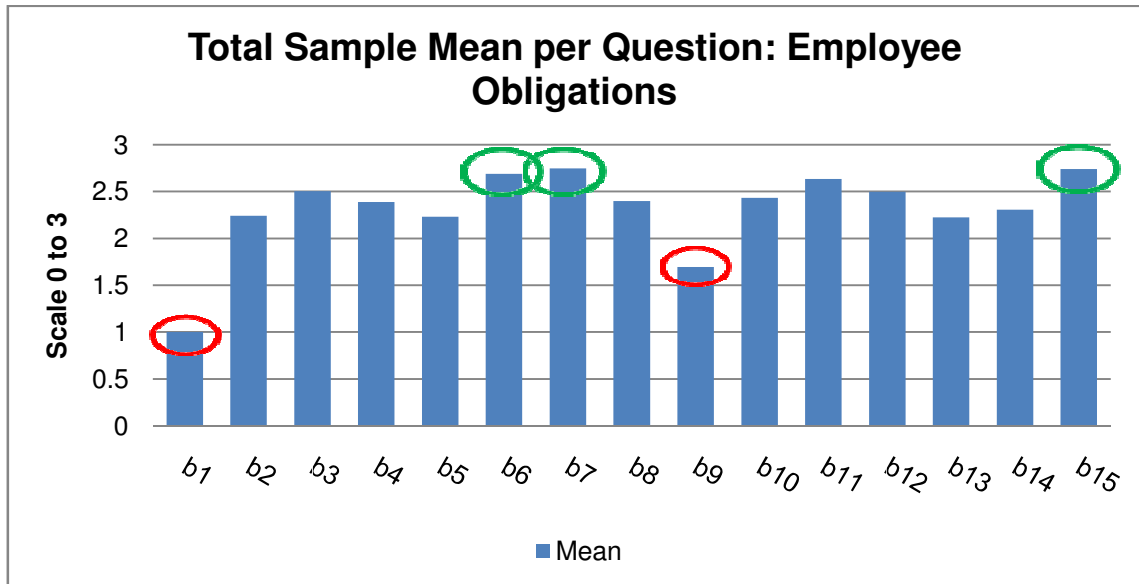


Figure 12: Total Sample Mean for Employee Obligations

The two lowest scoring employee obligations are “committed to go to work even if you do not feel particularly well” and “volunteered to do tasks outside your job requirements”. Some respondents viewed both questions from a safety perspective as indicated by one of the qualitative comments: “I can’t work if I’m sick, I will get injured” and “training is needed first before doing another task”. The results of these questions perhaps do not give a true reflection of the employee obligations of the psychological contract.

The three highest scoring employee obligations are “promised to be a good team player”, “turn up for work on time” and “respect the rules and regulations of the company”.

The respondents indicated that they strive towards working well in a team and are committed to turn up for work on time. A very strong focus on safety and safety related matters are evident from the respondents because they respect the rules and regulations of the company.

5.3.1.3 Emotions Concerning the Psychological Contract

The graph below shows the detail of the emotions concerning the psychological contract per question:

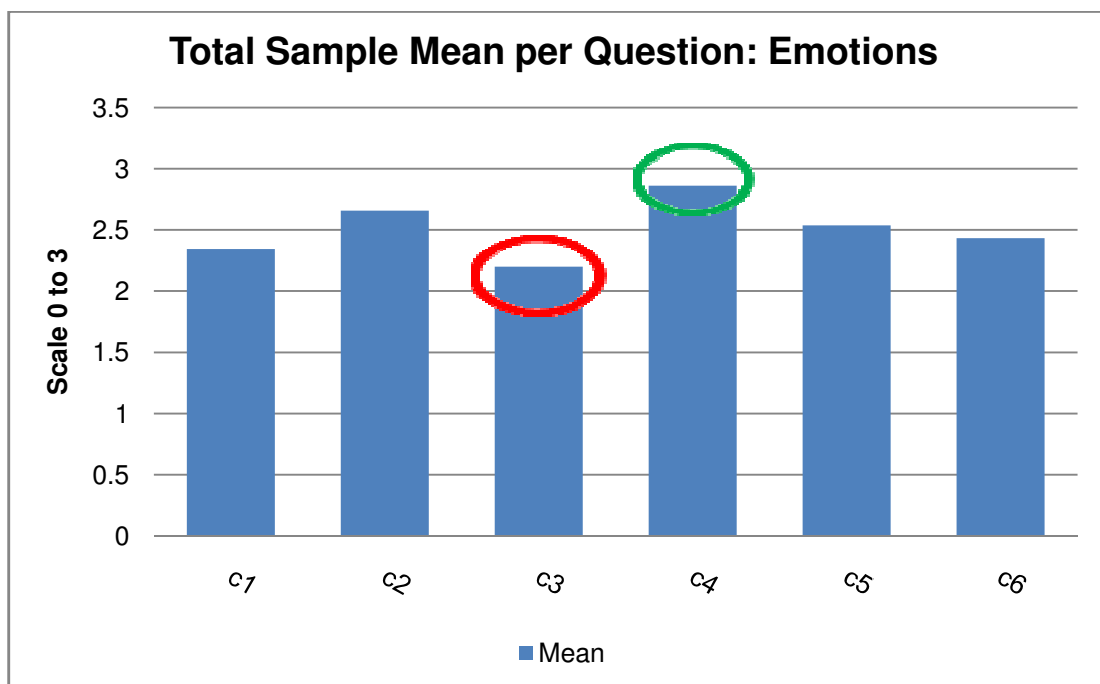


Figure 13: Total Sample Mean for Emotions

The lowest scoring emotion is “I feel pleased”. The highest scoring emotion is “I feel violated”. The respondents have indicated that they “neither agree or disagree to feeling pleased and they “agree somewhat” that they are feeling violated.

5.3.1.4 Overall State of the Psychological Contract

The graph below shows the detail of the overall state of the psychological contract per question:

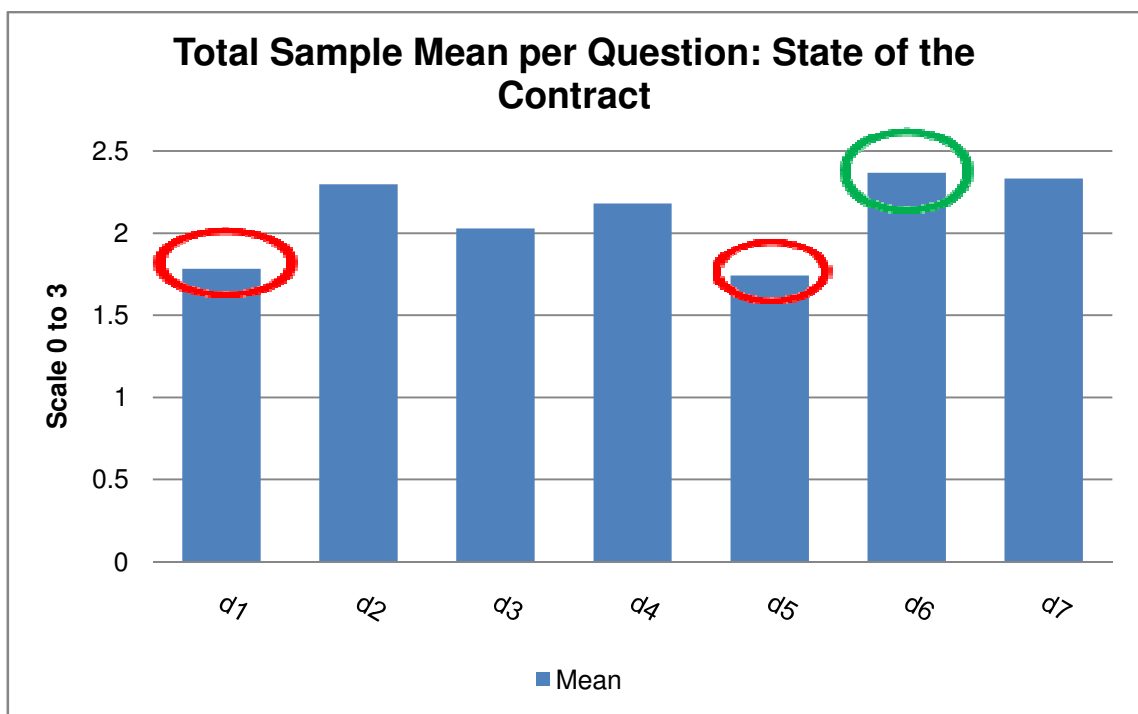


Figure 14: Total Sample Mean for the State of the Contract

The two weakest elements in the state of the psychological contract are “rewarded fairly for the amount of effort you put into your job” and “being fairly paid for the work you do”. The strongest element of the state of the psychological contract is “trusting your immediate line manager to look after your best interests”. The respondents have indicated that they are not paid fairly by the organisation but they do trust their first line supervisors to look after their best interests.

5.3.2 Correlation between the four main elements of the Psychological Contract for the total sample

A Pearson Correlation Coefficient analysis is used to measure the correlation between the main elements of the psychological contract for the total sample. The stronger the correlation, the higher the Pearson Correlation Coefficient will be. Two variables that are 100% correlated will have a Pearson Correlation Coefficient of one. Two variables with no correlation will have a Pearson Correlation Coefficient of zero.

The table below shows the Pearson Correlation Coefficients (PCC) for the different combinations of the four main fields:

Pearson Correlation Coefficients				
Prob > r under H0: Rho=0				
Number of Observations				
	Employer Obligations	Employee Obligations	Emotions	State of the Psychological Contract
Employer Obligations	1 176	0.61388 <.0001 172	0.44063 <.0001 164	0.72624 <.0001 169
Employee Obligations		1 173	0.24796 0.0014 163	0.43952 <.0001 168
Emotions			1 166	0.5446 <.0001 163
State of the Psychological Contract				1 171

Table 3: Pearson Correlation Coefficient for the Total Sample

A p-value < 0.05 for all possible combinations confirms a statistically significant correlation between all four elements with a 95% confidence level. The strength of the correlation, however, differs between the various permutations.

The table above shows that the strongest correlation exists between employer obligations and the state of the psychological contract with a PCC of 0.72 or 72%. That means that 72% of the state of the psychological contract can be described by the level of fulfilment of the employer obligations. The weakest correlation is between employee obligations and emotions with a PCC of 0.24.

The graph below shows the Pearson Correlation Coefficient for all the combinations of the elements of the psychological contract:

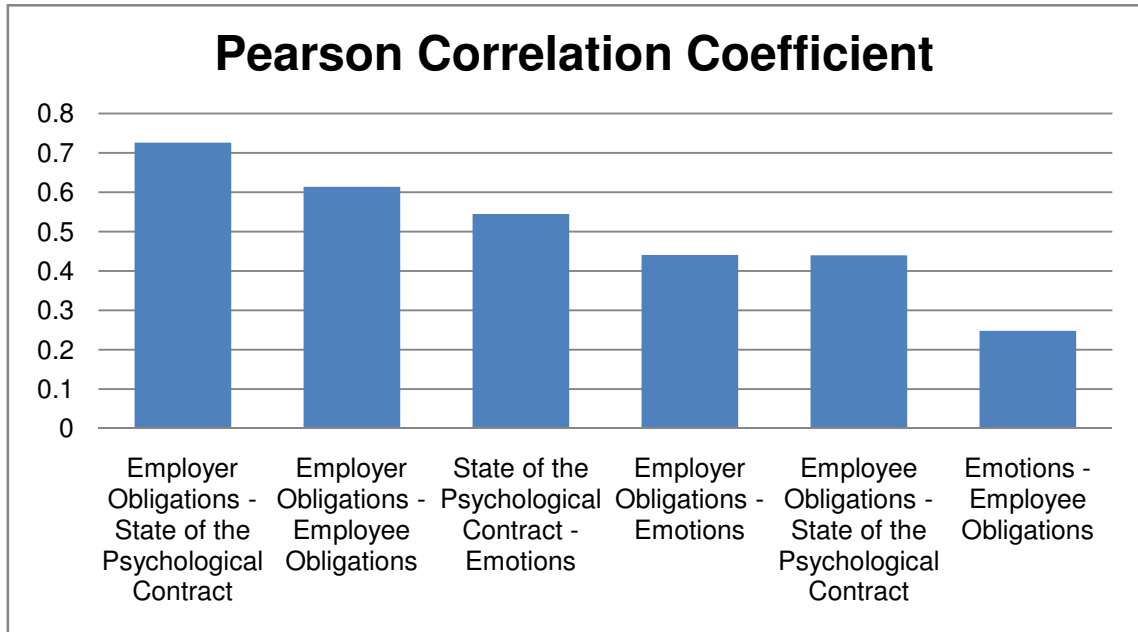


Figure 15: Pearson Correlation Coefficient between the four main elements

The emotions concerning the psychological contract are weakly correlated with employee obligations (PCC = 0.24), employer obligations (PCC = 0.44) and the state of the psychological contract (PCC = 0.54). The relative weak correlation of emotions with the three other elements of the psychological contract indicates that emotion play a less significant role in the psychological contract among blue-collar workers in the underground coal mining industry.

It is also interesting that the correlation between employee obligations and the state of the psychological contract is weak compared to the other correlations.

5.3.3 T-test of the Difference between Employer and Employee Obligations

A paired t-test was done to determine if a statistical significant difference exists between responses on employer obligations and employee obligations. The graph below shows the results of a paired t-test of the difference between the employer and employee obligations as described by the respondents.

The graph below shows the difference for the total sample as well as the difference for each of the three demographic groups:

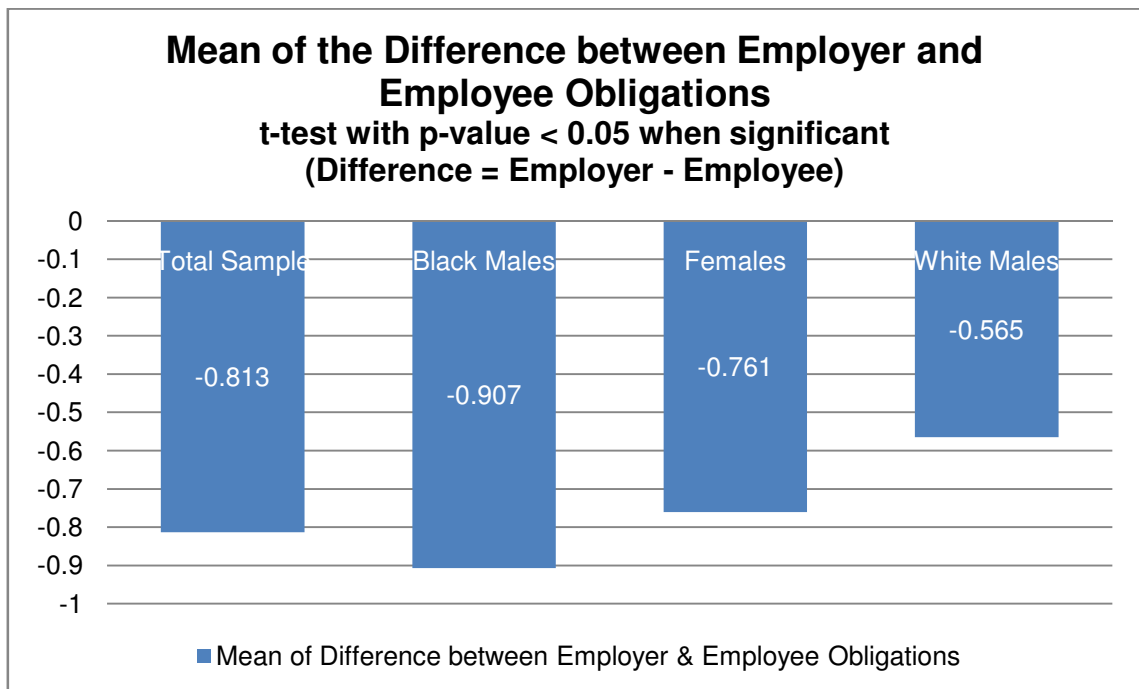


Figure 16: Difference between employer and employee obligations

The difference is indicated as a negative number because of the fact that employee obligations scored higher than employer obligations on a four-point scale. This is also evident in **Figure 9: Employer and Employee Obligations: Total Sample.**

The difference between employer and employee obligations for each of the groups individually is statistically significant due to a p-value < 0.05.

The respondents regard the fulfilment of their promises to the company as superior to the fulfilment of promises by the company.

The difference between employer and employee obligations differ for each of the three demographic groups. White males show the smallest difference and Black males show the highest difference. The significance of these differences are analysed in **Chapter 5.6.1 Anova and Duncan Test: Comparison between the three demographic groups.**

5.4 Hypothesis 2: Contents of the Contract

Part A and B of the questionnaire allowed respondents to choose whether they believe specific elements are present in the psychological contract. The questionnaire has a four-point scale, shown in the two tables below. In these tables, the first option is selected when the specific element has not been promised formally or informally by the employer and/or the employee. If “No”, scale 0, is selected, the specific element is viewed as not being part of the psychological contract for that respondent. If “Yes”, scale 1 to 3, is selected, the specific element is viewed as being part of the psychological contract and the respondent then also rated the level of fulfilment for that specific element.

EMPLOYER OBLIGATIONS: Next follows a list of some promises and commitments which organisations sometimes make to their employees. For each, I would like you to consider whether such a promise has been made by this organisation either formally or informally and the extend to which it has been fulfilled	0 No	1 Yes, but promise not kept at all	2 Yes, but promise half kept	3 Yes, promise fully kept
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Table 4: Employer Obligations Questionnaire Scale

EMPLOYEE OBLIGATIONS: The following list consist of some promises and commitments that people sometimes make to their organisation. For each, I would like you to consider whether you made such a promise to this organisation, either formally or informally, and the extend to which it has been fulfilled. Have you promised or committed yourself to....	0 No	1 Yes, but promise not kept at all	2 Yes, but promise half kept	3 Yes, promise fully kept
--	---------	--	---------------------------------------	------------------------------------

Table 5: Employee Obligations Questionnaire Scale

The data from the respondents has been analysed to determine the frequency of “No” and “Yes” selections for each element of employer and employee obligations.

5.4.1 Content Analysis for the Total Sample

The graph below shows the frequency of “Yes” for the total sample for employer obligations and hence the frequency of an element selected as being included in the contract. A high percentage of “Yes” indicates that an element forms part of the psychological contract for a high percentage of respondents.

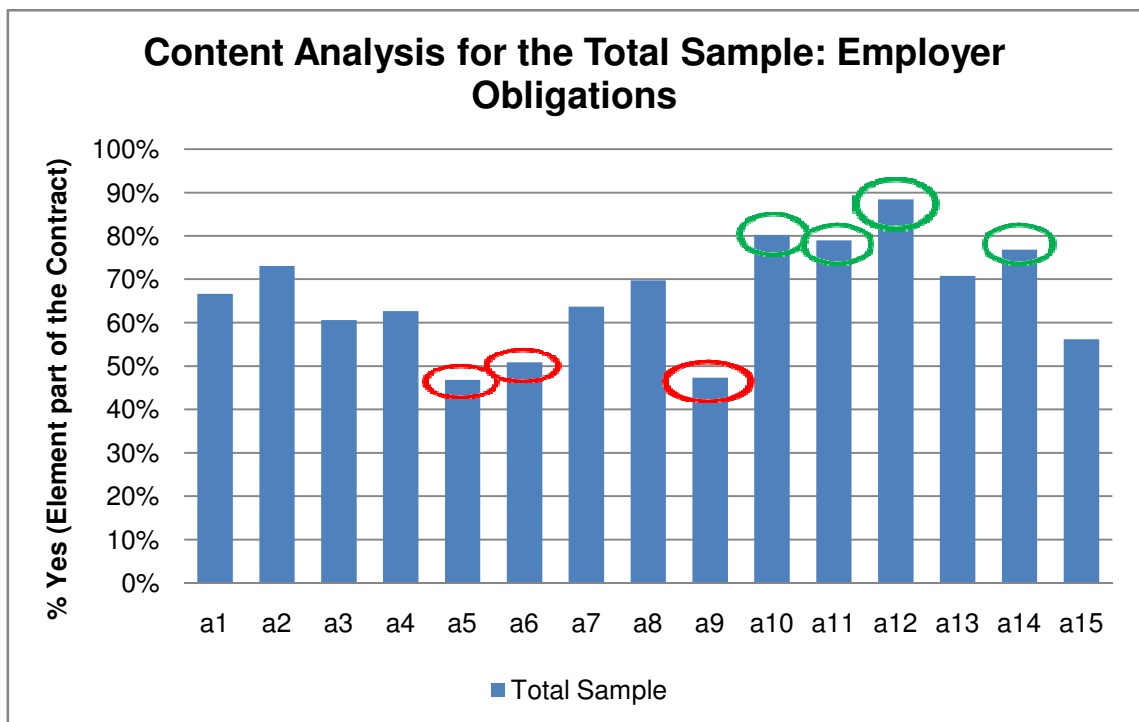


Figure 17: Content Analysis for the Total Sample: Employer Obligations

The graph shows clear differences in the number of respondents viewing elements as part of the psychological contract. More than 70% of the respondents selected “a safe working environment”, “possibilities to work together in a pleasant way”, “opportunities to advance and grow” and “an environment free from harassment and violence” as obligations from the employer that are included in the psychological contract.

Fifty percent (50%) or less of the respondents viewed “being part of decision making”, “provide employees with a career” and “being flexible in matching employees’ non-working roles” as part of the employer obligations in the psychological contract.

“Opportunities to advance and grow” is viewed by 79% of respondents as part of the contract but in contrast to this is that “being provided with a career” is only viewed by 50.9% of respondents as part of the psychological contract.

Figure 18: Content Analysis for the Total Sample: Employee Obligations shows the frequency of “Yes” for the total sample for employee obligations and hence the frequency of an element selected as being included in the contract. A high percentage of “Yes” indicates that an element forms part of the psychological contract for a high percentage of respondents.

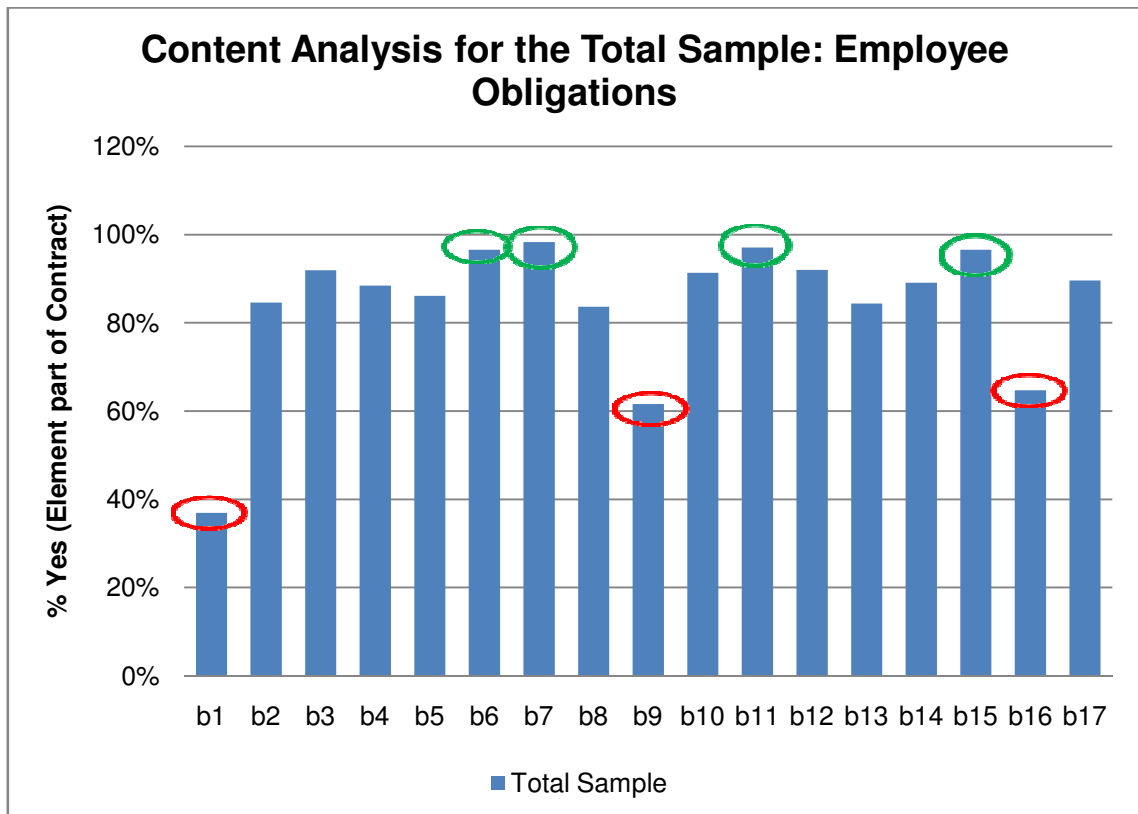


Figure 18: Content Analysis for the Total Sample: Employee Obligations

The graph above confirms a higher percentage of elements included in the employee obligations than in the employer obligations of the psychological contract. Close to 100% of the respondents viewed “being a good team player”, “turn up for work on time”, “meet performance expectations” and “respect the rules and regulations of the company” as part of employee obligations of the psychological contract.

Significantly lower percentage of respondents viewed “going to work when you are not feeling well”, “volunteer for tasks outside your job requirements” and “being committed to work enthusiastically on jobs you prefer not to be doing” as part of employee obligations of the psychological contract.

5.5 Hypothesis 3: Impact of Tenure on the Contract

5.5.1 Analysis of the Sample in terms of Tenure

In reference to **Chapter 2.4 Tenure of employment**, tenure of employees was used in this research to measure and make inferences on how the psychological contract changes over tenure. Tenure responses were divided into the following categories:

- 0 – 1 year;
- 1 – 5 years;
- 5 – 15 years; and
- 15 years +

The graph below shows the demographic representation in the research sample for each of the tenure categories:

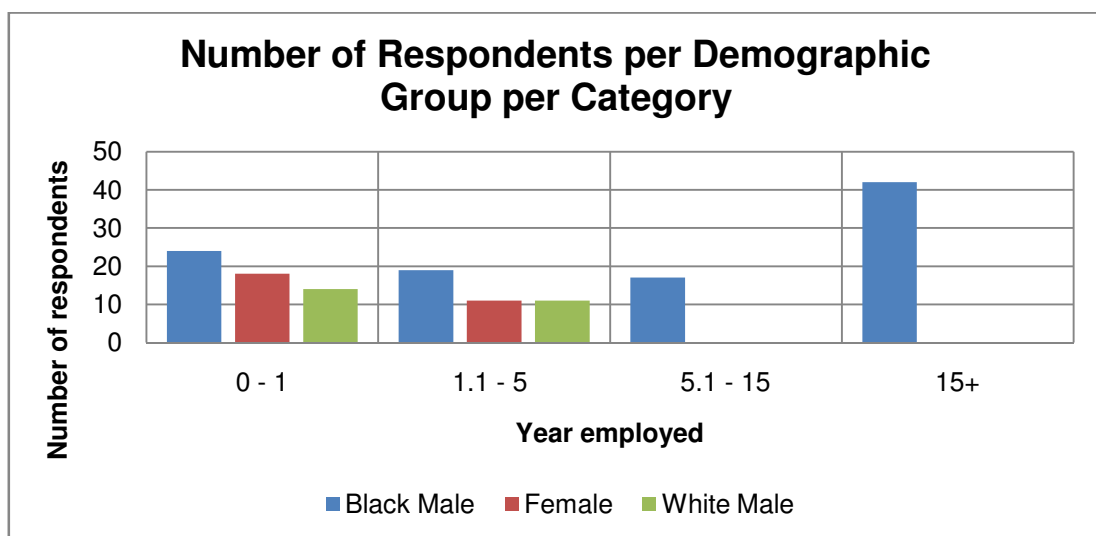


Figure 19: Number of Respondents per Tenure Category

The graph above shows a fair representation of all three demographic groups in the first two tenure categories up to five years. No White males and Females are represented in the category longer than five years. This is confirmation of the recent introduction of Females and White males in the low and unskilled job category in the mining environment (Ndaba, 2008).

5.5.2 Anova and Duncan Test: Comparison between the different categories in Tenure

An analysis of variance (ANOVA) test was done to determine if there is a significant difference between the mean for each of the categories of tenure for the four main elements of the psychological contract. Where the ANOVA test indicated a significant difference, i.e. a p-value of less than 0.05, a *post hoc* test was done to determine between which groups a significant difference exists.

A Duncan's Multiple Range test was done and the results for the ANOVA test and Duncan's Multiple Range test are summarized in the table below:

TENURE					
	0-1 year	>1 - 5 years	>5 - 15 years	+15 years	ANOVA p-value
Employer Obligations	1.7346 ^a	1.4569 ^{ab}	1.4157 ^{ab}	1.1095 ^b	0.0077*
Employee Obligations	2.6037 ^a	2.3467 ^{ab}	2.2583 ^b	1.865 ^c	0.0001*
Emotions concerning psychological contract	2.5933 ^a	2.5351 ^{ab}	2.7292 ^a	2.2937 ^b	0.0091*
State of the Psychological Contract	2.3818 ^a	2.0179 ^{ab}	1.7589 ^b	1.7286 ^b	0.0025*
Difference Between Employer and Employee Obligations	-0.8629 ^a	-0.8767 ^a	-0.8833 ^a	-0.7967 ^a	0.9530
* Significant in the 95% confidence level					
a/ab/b/c Shows between which variables a significant difference exist within the 95% confidence level					

Table 6: ANOVA test and Duncan's *post hoc* test for tenure categories and contract elements

The superscript a, ab, b or c indicates the Duncan grouping of a specific group. If the superscript is different between two groups, a statistically significant difference exists between their means. The table shows a statistical significant difference between the first category, 0-1 year, and the 15+ category for all four main elements of the psychological contract.

This means that for employer obligations, the level of fulfilment for employees working for one year or less is significantly higher than that of employees working for 15 years and longer.

The same applies to employee obligations, emotions concerning the psychological contract and the state of the psychological contract. Three significantly different category means exist for employee obligations. The category mean for employees working for one year or less is also significantly higher to the mean of employees working for more than 5 years.

The higher the category mean, the more fulfilled the psychological contract. These results thus indicate that the level of fulfilment deteriorates for employees with a longer tenure.

The graph below shows the consistent decline in level of satisfaction or fulfilment for each of the main elements of the psychological contract:

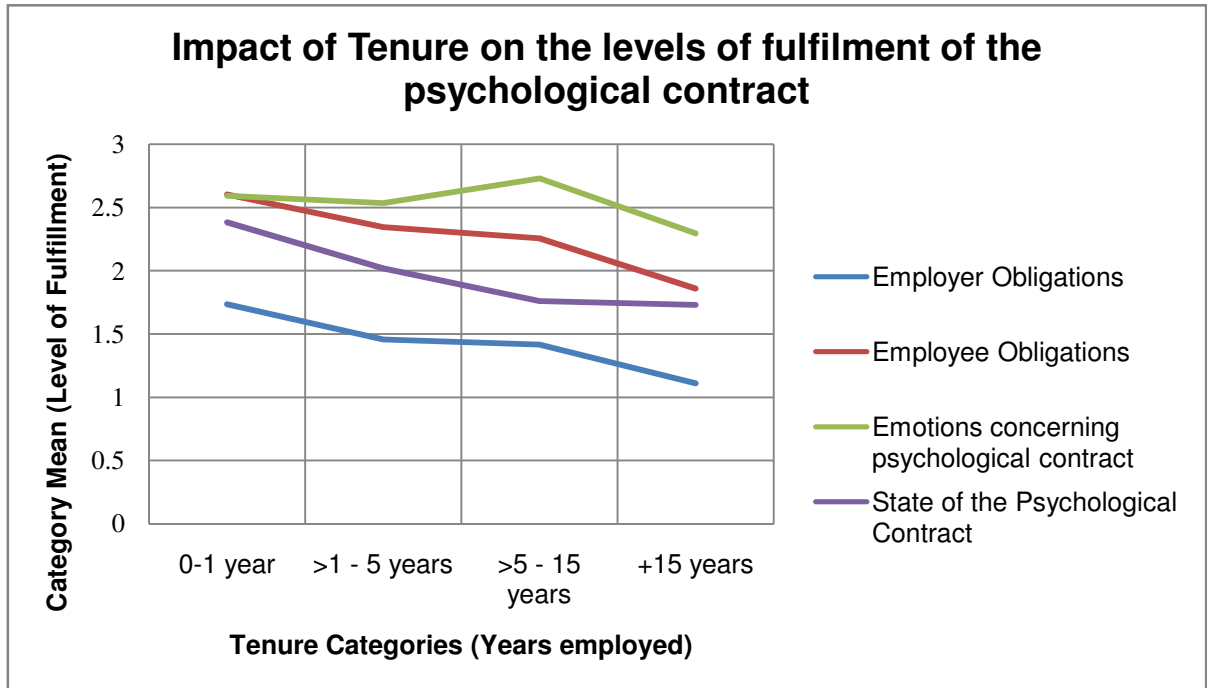


Figure 20: The impact of tenure on levels of fulfilment of the psychological contract

The graph shows a consistent decline in the fulfilment levels of the psychological contract as length of tenure increases.

Table 6: ANOVA test and Duncan’s post hoc test for tenure categories and contract elements shows the difference between employer and employee obligations is not statistically significant between any of the four categories of tenure. The p-value of 0.9530 shows that the perceived difference between employer and employee obligations does not change significantly over time.

5.5.3 Content Analysis per Tenure Category

Battu *et. al.* (2002) and Lee and Faller (2005) stated that the contents of the psychological contract changes with length of tenure. The graph below shows the frequency of “Yes” per tenure category for employer obligations and hence the frequency of an element selected as being included in the psychological contract:

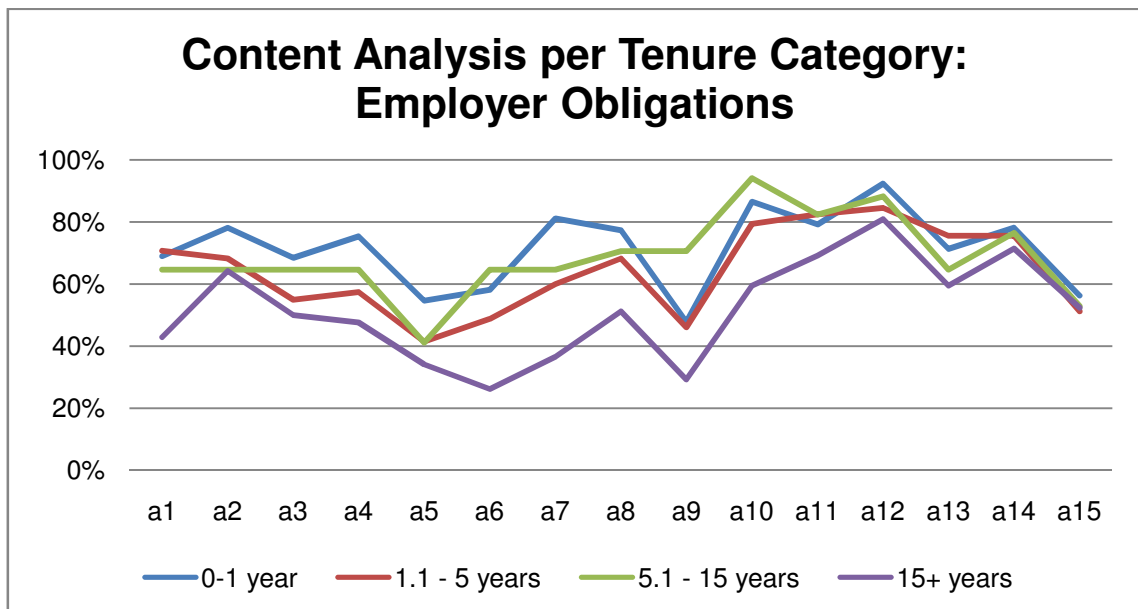


Figure 21: Content Analysis for Different Tenure Categories: Employer Obligations

Even though patterns emerge and similarities and differences exist between the various tenure categories, further analysis is required to highlight significant differences between the four tenure categories.

The result of this analysis whereby the sum of the differences² was calculated, is shown in **Figure 22: Analysis of differences between tenure categories: Employer Obligations**. This analysis was done by calculating the sum of the differences to the power of two (difference²) of the percentage representation of each employer obligation element in the psychological contract for the four tenure categories. The bigger the difference between the tenure categories, the higher the sum of the difference². The smaller the difference between the tenure categories, the lower the sum of the difference².

The result is shown in the graph below:

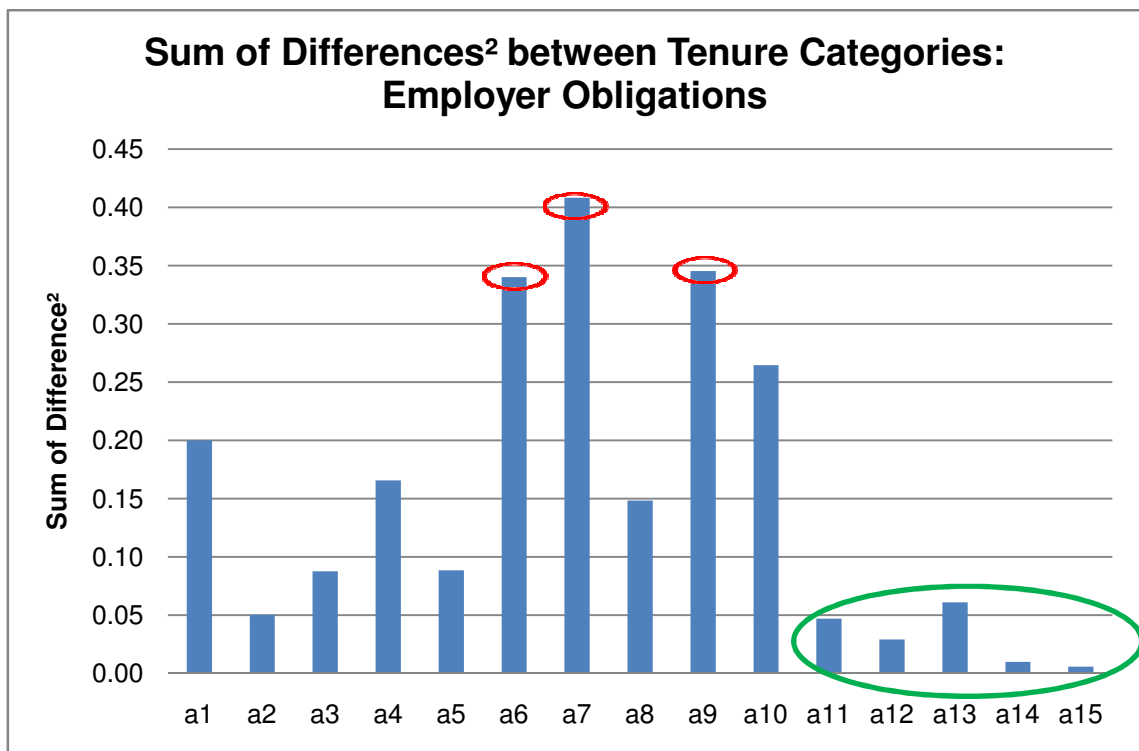


Figure 22: Analysis of differences between tenure categories: Employer Obligations

The graph shows significant differences between the four tenure categories. The significant differences exist in the elements “provide you with a career”, “provide a good working atmosphere” and “flexibility for non-working roles”.

Figure 21: Content Analysis for Different Tenure Categories: Employer Obligations and **Table 13: Percentage representation of elements per tenure category** shows that only 26.2% of employees with tenure of 15 years or longer, still view it an employer obligation to be provided with a career. This is compared to an average of 57.2% of employees in the other three tenure categories. Interestingly, employees with tenure of 5 to 15 years have the highest expectation (64.7%) of the employer providing them with a career.

Table 13: Percentage representation of elements per tenure category shows that employees with tenure of one year or less have very high expectations (81.3%) of the employer providing a good working atmosphere. This is in sharp contrast with the low expectations, only 36.6%, of employees with tenure of 15 years or longer for their expectations of the employer.

Seventy percent of employees with 5 to 15 years tenure expect the organisation to be flexible in matching demands of non-work roles. Only 41.1% of the other three tenure categories expect the employer to be flexible in matching non-work roles.

The graph also shows employer obligation elements that are consistently represented across the four tenure categories. These are “opportunities to advance and grow”, “provide a safe working environment”, “improve future prospects”, “provide an environment free from harassment and violence” and “help to deal with problems outside work”.

The graph below shows the frequency of “Yes” per tenure category for employee obligations and hence the frequency of an element selected as being included in the psychological contract:

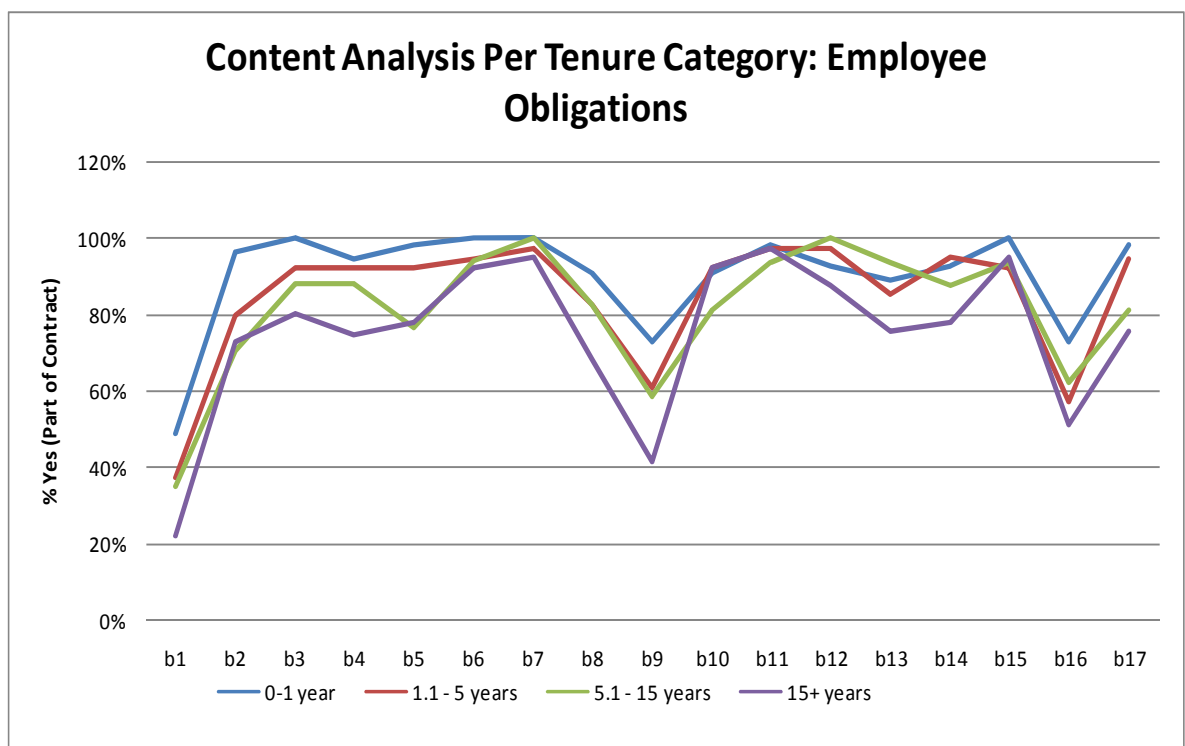


Figure 23: Content Analysis per Tenure Category: Employee Obligations

The results of the detail analysis on the difference between the categories, is shown below:

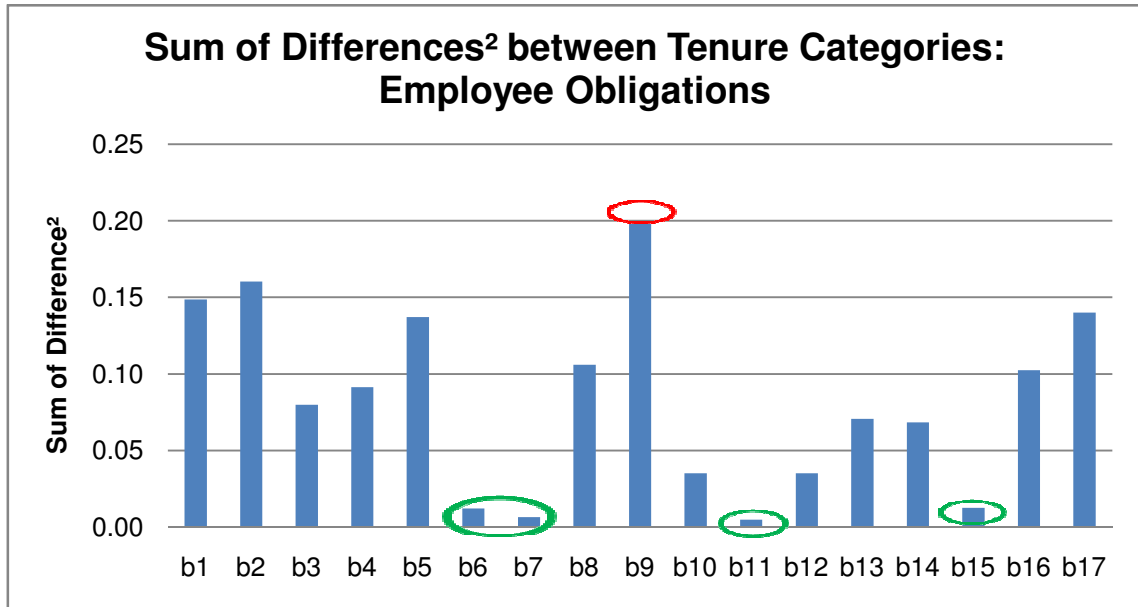


Figure 24: Analysis of Differences between Tenure Categories: Employee Obligations

A significant difference exists for “volunteering for tasks outside your job requirements”. Employees with tenure of one year or less are much more willing to perform tasks outside their normal job requirements than employees with tenure of 15 years and longer.

Significant similarities exist between the tenure categories in the employee obligation elements of “being a good team player”, “turn up for work on time”, “meet performance expectations” and “respect the rules and regulations of the company”.

5.6 Hypothesis 4: Impact of Demographics on the Contract

5.6.1 Anova and Duncan Test: Comparison between the three demographic groups

An analysis of variance (ANOVA) test was done to determine if there is a significant difference between the mean of the main elements of the psychological contract for the three demographic groups. Where the ANOVA test indicated a significant difference, i.e. a p-value of less than 0.05, a post hoc test was done to determine between which groups a significant difference exists.

A Duncan's Multiple Range test was done and the results for the ANOVA test and Duncan's Multiple Range test are summarized in the table below:

DEMOGRAPHIC GROUPS					
	Black Males	Females	White Males	ANOVA p-value	Scale
Employer Obligations	1.2816 ^c	1.6468 ^b	2.1021 ^a	0.0001	0-3
Employee Obligations	2.1615 ^b	2.4432 ^a	2.6667 ^a	0.0002	0-3
Emotions concerning psychological contract	2.4595 ^b	2.3125 ^b	2.8548 ^a	0.0001	1-4
State of the Psychological Contract	1.7535 ^c	2.4247 ^b	2.8571 ^a	0.001	1-4
Difference between Employer and Employee Obligations	-0.90741 ^b	-0.7611 ^{ab}	-0.5646 ^a	0.0506	
* Significant in the 95% confidence level a/ab/b/c Shows between which variables a significant difference exist within the 95% confidence level					

Table 7: ANOVA and Duncan post hoc test for the three demographic groups

The superscript a, ab, b or c indicates the Duncan grouping of a specific group. If the superscript is different between two groups, a statistically significant difference exists between their means.

The table shows a significant difference between White males and Black males for all four the main elements of the psychological contract. Females significantly differ from the Black males and White males in the fields of employer obligations and state of the psychological contract.

There is a significant difference between how Black males and White males view the fulfilment of the employer obligations of the contract. Black males are very close to one on the 4-point scale. This in effect means that promises made, are “not kept at all”. For White males, promises are made and “half-kept”.

5.6.2 Correlation between the four main elements of the psychological contract for the three demographic groups

The table below show the Pearson Correlation Coefficient (PCC) between the main elements of the psychological contract for each of the three demographic groups:

Pearson Correlation Coefficients (Prob > [r] under H0: Rho = 0, i.e. p-value in brackets)					
		Employer Obligations	Employee Obligations	Emotions	State of the Contract
Employer Obligations	Black male	1.000	0.60352 (<.0001)	0.39336 (<.0001)	0.67842 (<.0001)
	Female	1.000	0.43622 (0.0078)	0.43748 (0.0156)	0.8374 (<.0001)
	White male	1.000	0.54081 (0.0014)	0.46241 (0.0088)	0.48644 (0.0048)
Employee Obligations	Black male		1.000	0.22634 (0.0222)	0.39361 (<.0001)
	Female		1.000	0.05259 (0.7825)	0.35654 (0.355)
	White male		1.000	0.25866 (0.1600)	0.19224 (0.2919)
Emotions	Black male			1.000	0.51542 (<.0001)
	Female			1.000	0.51020 (0.0034)
	White male			1.000	0.72936 (<.0001)
State of the Contract	Black male				1.000
	Female				1.000
	White male				1.000

Table 8: Pearson Correlation Coefficient for the Three Demographic Groups

The table above shows that employer obligations are correlated to all the other three elements of the psychological contract for all three groups. This shows that the fulfilment of employer obligations play a major role in how employees perceive the fulfilment of the psychological contract. Employer obligations are the strongest when correlated to the state of the psychological contract for Females (PCC = 0.83) and the weakest for White males (PCC = 0.48). The PCC for Black males between employer obligations and the state of the psychological contract is 0.67.

For Black males, employee obligations are significantly correlated to emotions and the state of the psychological contract. For Females and White males, employee obligations are not significantly correlated to emotions and the state of the psychological contract.

Emotions are significantly higher correlated with the state of the psychological contract for White males (PCC = 0.72) than for the other two groups (PCC = 0.51).

5.6.3 Content Analysis per Demographic Group

The graph below shows the frequency of “Yes” per demographic group for employer obligations and the frequency of an element selected as part of the psychological contract:

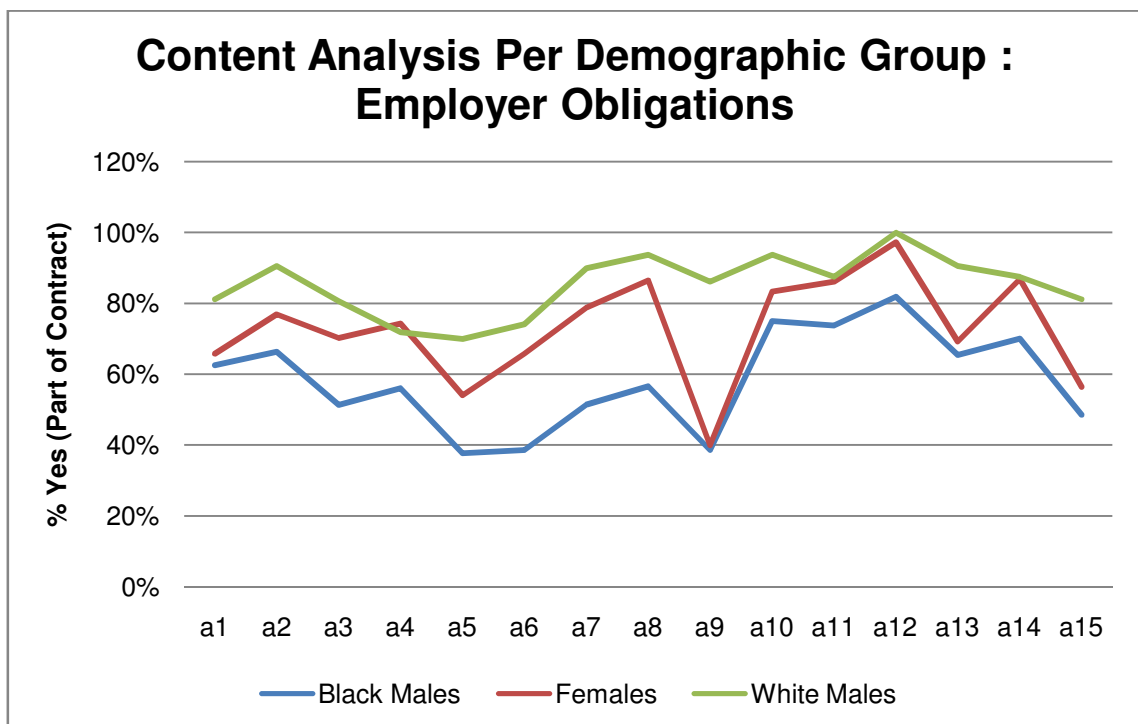


Figure 25: Content Analysis per Demographic Group: Employer Obligations

The graph indicates that White males perceive more elements to be part of the employer obligations. Even though patterns emerge and similarities and differences exist between the three demographic groups, further analysis is required to highlight significant differences.

The result of this analysis whereby the sum of the differences² was calculated, is shown in **Figure 26: Analysis of difference between Demographic Groups: Employer Obligations**. The bigger the difference in representation of an element between the demographic groups, the higher the sum of the difference². The smaller the difference between demographic groups, the lower the sum of the difference².

The results are shown in the graph below:

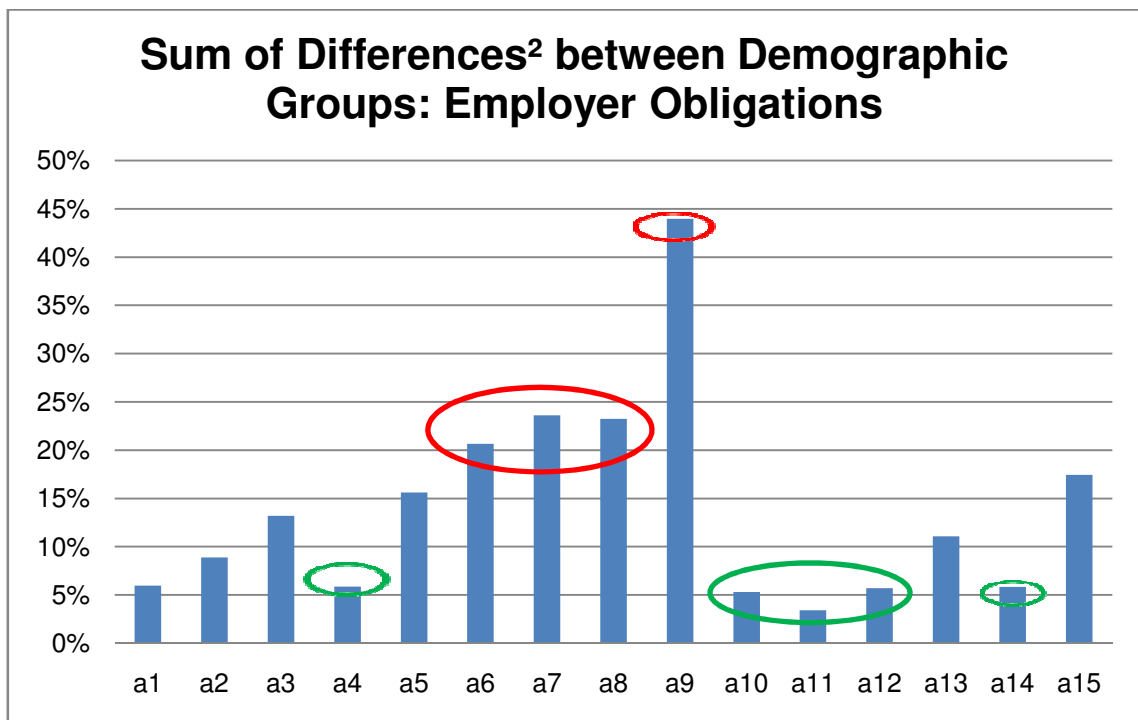


Figure 26: Analysis of difference between Demographic Groups: Employer Obligations

The biggest difference exists on the element of “flexibility in matching demands for non-work roles with work” between the three demographic groups. **Table 14: Percentage Representation of elements for the Demographic Groups** in the Appendices indicate that 86.2% of White males in the sample selected this element to be part of the employer obligations in their psychological contract in contrast to only 38.7% of Black males and 40% of Females.

Both Females (65.8%) and White males (74.2%) perceive it the employer’s obligation to provide them with a career. This is in contrast to only 38.7% of Black males including “being provided with a career” as part of the employer obligation within the psychological contract.

Differences also exist in the elements of “providing a good working atmosphere” and “fair treatment by managers and supervisors”. Both White males and Females have a higher regard for these elements to be part of the employer obligations in the psychological contract.

The graph below shows the frequency of “Yes” per demographic group for employee obligations and the frequency of an element selected as part of the psychological contract:

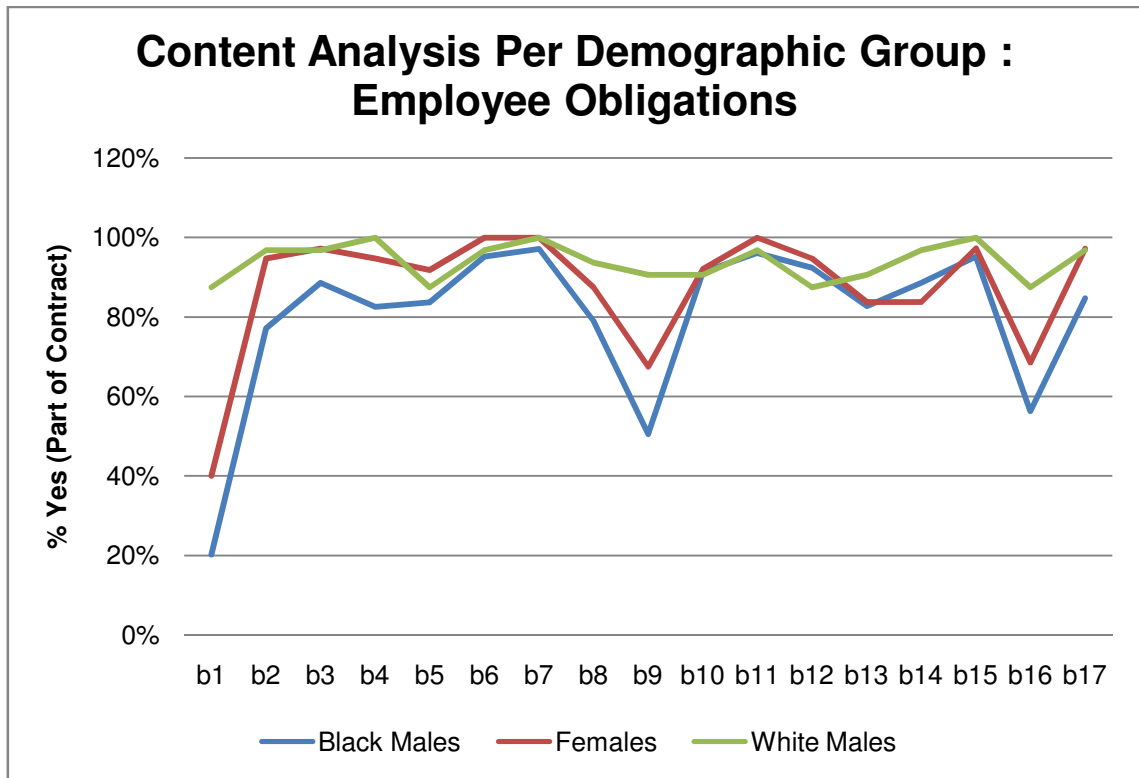


Figure 27: Content Analysis per Demographic Group: Employee Obligations

The results of the detail analysis for employee obligations are shown below:

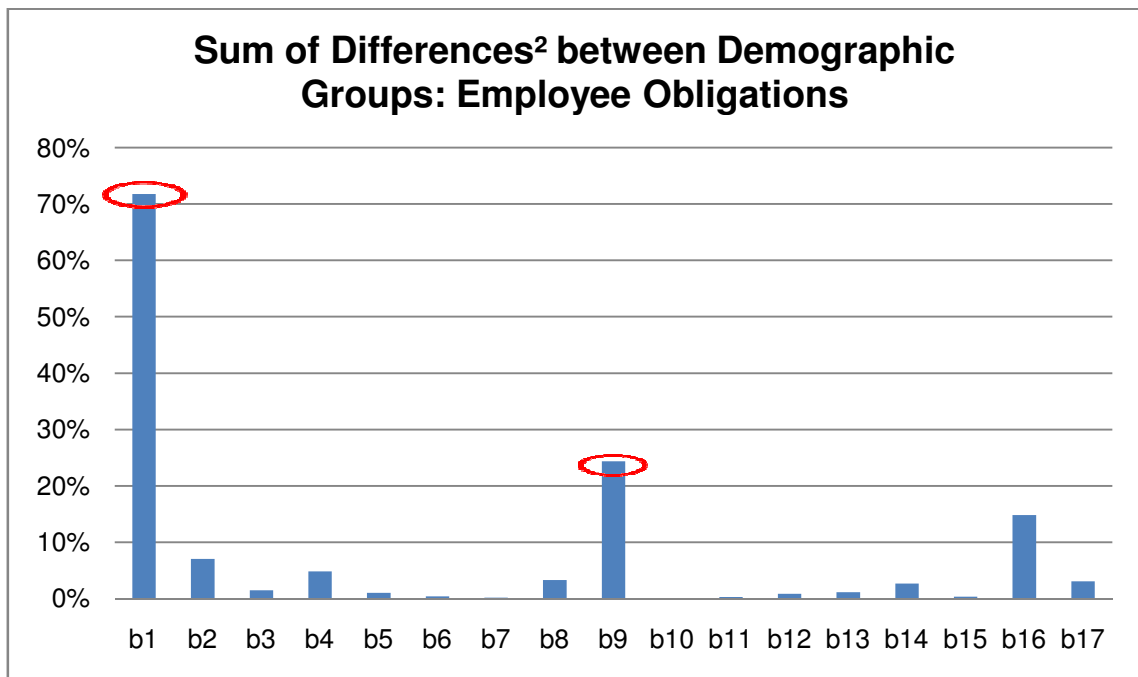


Figure 28: Analysis of Differences between Demographic Groups: Employee Obligations

This analysis shows a large number of similarities in how each demographic group views the employee obligations as part of the psychological contract. Employee obligations represent common ground between all three demographic groups.

White males perceive “going to work even if you don’t feel particularly well” and “volunteering to do tasks outside your normal duties” as part of the employee obligations as apposed to Females and Black males.

6. Discussion of Results

6.1 Hypothesis 1: State of the Contract

Hypothesis 1 states that the psychological contract requirements of low and unskilled workers in the underground coal mining industry are not fully met.

The results shown in **Figure 9: Employer and Employee Obligations: Total Sample** indicate a low mean for employer obligations of 1.507 on a scale of 0 to 3 for the total sample. The lower the score, the lower the level of fulfilment of the employer obligations. The employer obligations in the psychological contract of the respondents are not fully met. The respondents regard promises by the organisations as somewhere between “not kept at all” and “half-kept”.

Figure 10: Emotions and State of the Psychological Contract: Total Sample shows that the state of the psychological contract among low and unskilled employees in the organisation is very low.

The results shown in **Figure 15: Pearson Correlation Coefficient between the four main** and **Table 3: Pearson Correlation Coefficient for the Total Sample** show a very strong correlation between the level of fulfilment of the employer obligations and the state of the contract. It represents the strongest correlation between all four of the main elements of the contract.

It can therefore be assumed that the low level of fulfillment of the employer obligations lead to a deterioration of the overall state of the psychological contract.

The specific elements responsible for the unfulfilled employer obligations are shown in **Figure 11: Total Sample Mean per question for Employer Obligations**. The non-fulfillment of obligations regarding “career progression”, “flexibility towards non-work roles” and “not participating in decision-making” led to the deterioration in the overall state of the contract.

The fulfillment of the employer’s obligation to “provide good pay for the work employees do” was rated higher than the above-mentioned elements. On the other hand, **Figure 14: Total Sample Mean for the State of the Contract** shows that financial reward for the work done is the biggest concern regarding the overall state of the contract. It can therefore be argued that the lack of career progression and other job benefits result in employees feeling underpaid for the work they do. The solution to this would not necessarily be to pay employees more, but to ensure that a balanced set of perceived employer obligations are met.

The best-fulfilled elements among employer obligations are “providing of a reasonable secure job”, “providing an environment free from violence and harassment” and “providing a safe working environment”. **Figure 14: Total Sample Mean for the State of the Contract** revealed that the fulfillment of these elements results in an above-average score for “the extent to which line supervisors and managers can be trusted to look after employees’ best interests” and “being fairly treated by supervisors” in the overall state of the contract.

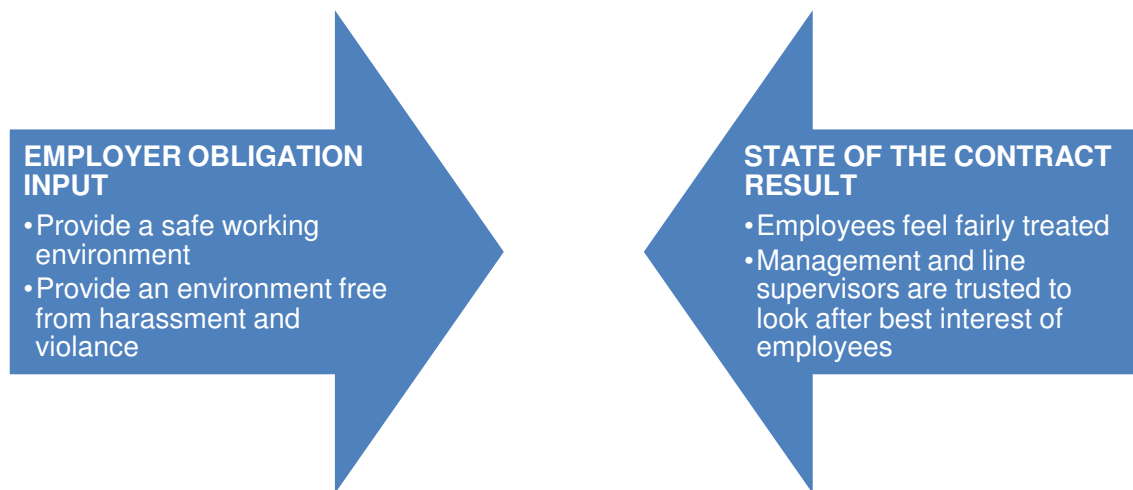


Figure 29: Positive elements from Employer Obligations correlated to the State of the Contract

The positive result of meeting employer obligations is due to the strong and statistically significant correlation between the employer obligations and the state of the psychological contract.

Employees highly regard their obligations towards the company.

Figure 9: Employer and Employee Obligations: Total Sample and **Figure 12: Total Sample Mean for Employee Obligations** show that the respondents regarded the fulfilment of their obligations towards the company to be superior to that of the fulfilment of the employer's obligations. This represents a perception by employees that the promises they make to the organisation lies somewhere between "half-kept" and "fully-kept". **Table 6: ANOVA test and Duncan's post hoc test for tenure categories and contract elements** shows that this view by employees does not change over length of tenure.

The correlation between employee obligations and the state of the psychological contract is relatively weak compared to the other correlations as shown in **Figure 15: Pearson Correlation Coefficient between the four main elements**. Even though employees view the fulfilment of their obligations as superior, it does not have a big impact on the state of the contract. The state of the contract is mainly determined by how well the employer fulfils its obligations.

Aggarwal and Bhargava (2009) found that employees tend to relate unkept promises to emotional attributes such as uncaring behaviour by management. Guerrero and Herrbach (2008) noted that the violation of the contract due to the employer's responsibility, results in emotions of anger, frustration or betrayal.

Figure 10: Emotions and State of the Psychological Contract: Total Sample and **Table 3: Pearson Correlation Coefficient for the Total Sample** show that employer obligations were found to be significantly correlated to emotions concerning the contract. Employer obligation violations may have lead to the respondents' average response of "agreeing somewhat" that they feel violated. This correlates to the findings by Aggarwal & Bhargava (2009) and Guerrero & Herrbach (2008).

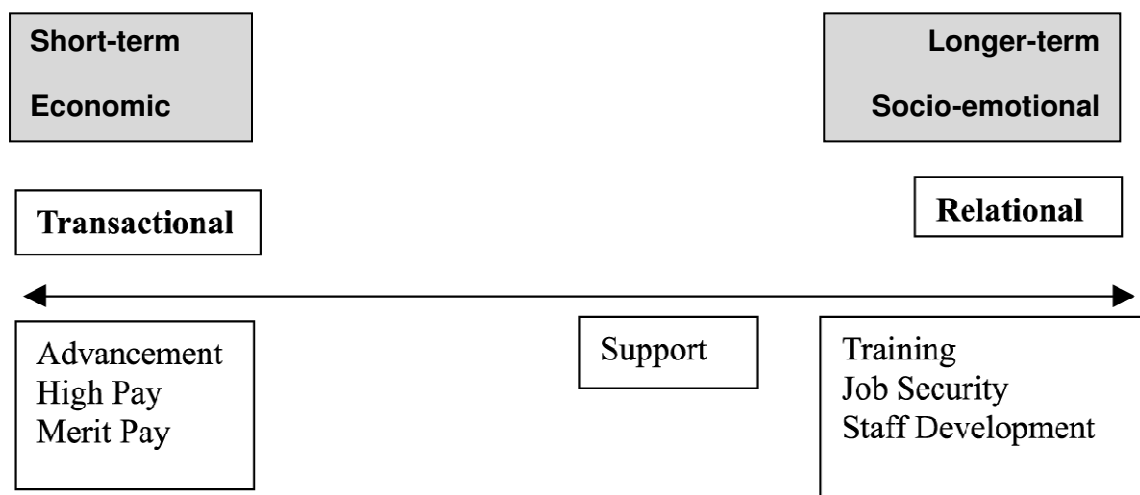
Their findings can be expanded by comparison with the results of this research. **Figure 15: Pearson Correlation Coefficient between the four main elements** shows the correlation between employee obligations and emotions concerning the contract is statistically valid, but it is significantly lower than the correlation between the other main elements of the psychological contract. It can be argued that the violation of employer obligations results in strong emotions felt by employees, but the violations of employee obligations towards the organisation, does not lead to an emotional response by employees.

The results of this research fail to reject Hypothesis 1, which states that the psychological contract requirements of low and unskilled workers in the underground coal mining industry are not fully met.

6.2 Hypothesis 2: Contents of the Contract

Hypothesis 2 states that the transactional element of the psychological contract for blue-collar workers in the underground coal mining industry is not more significant than the relational element.

Tallman and Bruning (2008) define transactional contracts to be “short-term and economic” and relational contracts as “longer-term and socio-emotional in nature” (Talmann & Bruning, 2008, p. 691). The elements of the employer and employee obligations in the research results were classified as either transactional or relational by combining Talmann & Bruning’s definitions with that of Atkinson and Cuthbert. The combined definition is presented in the diagram below:



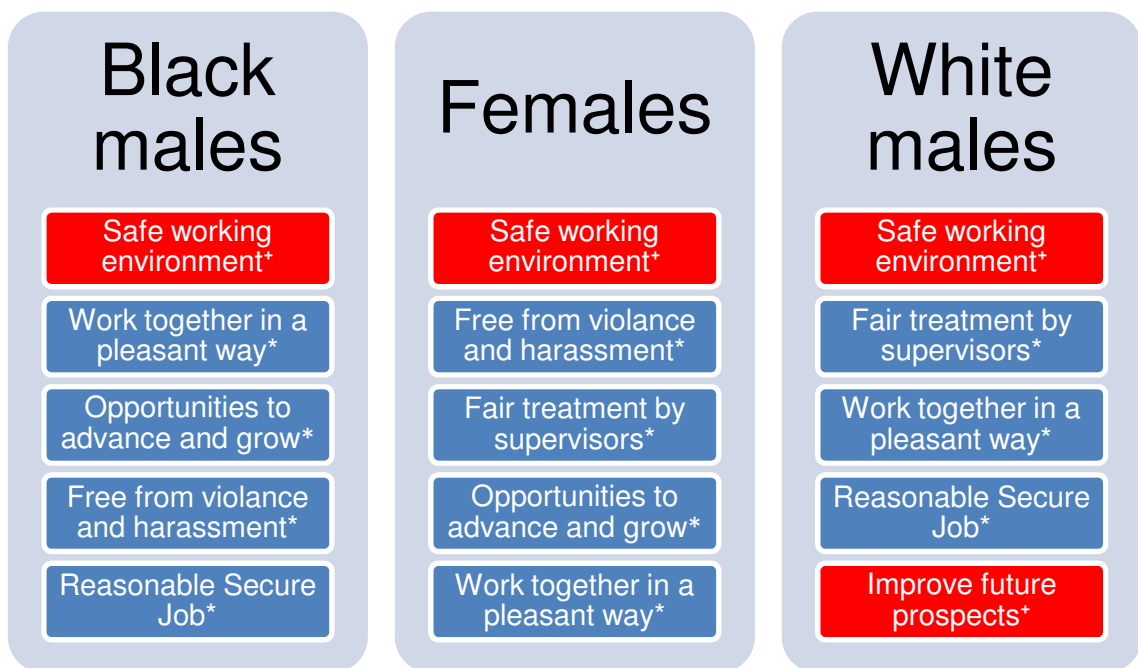
Atkinson and Cuthbert, 2006, p. 649; Talmann and Bruning, 2008, p. 691

Figure 30: Transactional and Relational Aspects of the Psychological Contract

The top five elements of the employer obligations per demographic group were derived from:

Figure 25: Content Analysis per Demographic Group, Figure 17: Content Analysis for the Total Sample: Employer Obligations and Figure 18: Content Analysis for the Total Sample: Employee Obligations. Each of the top five elements for each of the three demographic groups is shown to be either transactional or relational.

The results are shown in the table below:



+ *Transactional element*

* *Relational element*

Figure 31: Top Five Employer Obligation Elements for the three demographic groups

Figure 31: Top Five Employer Obligation Elements for the three demographic groups shows that more than half of the top five elements of the employer obligations, as chosen by respondents, are relational elements. The finding of Atkinson and Cuthbert (2006) that employees other than management are less likely to have psychological contracts leaning towards relational elements, is therefore rejected for low and unskilled employees in the underground coal mining industry. What is even more significant, is the absence of a key transactional element, i.e. “providing good pay for the work done”, in the top five elements.

The employer’s obligation to provide “opportunities to advance and grow” is viewed by 79% of respondents as part of the psychological contract. In contrast “being provided with a career” is only regarded by 50.9% of respondents as part of the psychological contract - **Figure 17: Content Analysis for the Total Sample: Employer Obligations**. The difference is even more significant for Black males with **Table 14: Percentage Representation of elements for the Demographic Groups** showing that only 37% of Black males expect the employer to provide them with a successful career.

In white-collar terms, “opportunities for upward mobility”, is a sign of a successful career (Hennequin, 2007, p. 566). The diagram below shows that blue-collar worker’s perception of “career success” is not based solely on transactional rewards (Hennequin, 2007, p. 573). While money is important to blue-collar workers, “internal status hierarchies are also important for them to establish a sense of dignity” at work (Lucas and Buzzanell, 2004, p. 288).

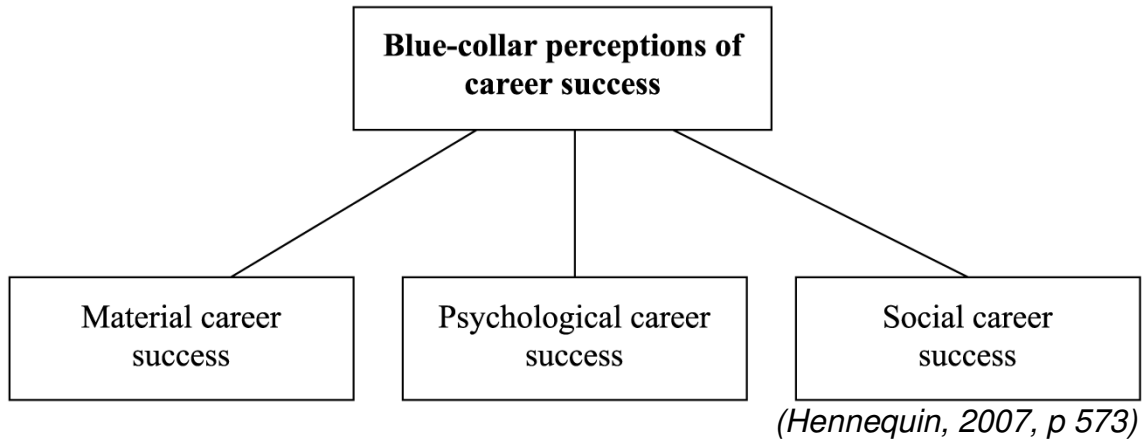


Figure 32: Blue-collar perceptions of career success (Hennequin, 2007)

The importance of social bonds among blue-collar workers is confirmed in **Figure 31: Top Five Employer Obligation Elements for the three demographic groups** with all three demographic groups listing the employer’s obligation to “provide possibilities for employees to work together in a pleasant atmosphere”, in the top five employer obligations.

A qualitative statement by one of the respondents emphasised this statement: *“I’m always happy to work with my colleagues and they always give the motivation to each other (sic).”*

Even though relational elements came out strongly in the analysis of the results, comments were received by respondents such as *“Funa imali - I want money”* and *“Faka imali uzobona : Put the money and you will see!”*. **Figure 14: Total Sample Mean for the State of the Contract** indicates that “being fairly rewarded for work done” remains a very important element of the psychological contract for low and unskilled workers.

The results of this study fail to reject Hypothesis 2, which states that the transactional element of the psychological contract for blue-collar workers in the underground coal mining industry is not more significant than the relational element.

6.3 Hypothesis 3: Impact of Tenure on the Contract

Hypothesis 3 states that the content changes and the measure of fulfilment of the psychological contract for blue-collar workers in the underground coal mining industry, increases with length of tenure.

Table 6: ANOVA test and Duncan's post hoc test for tenure categories and contract elements showed a statistically significant reduction in levels of fulfilment across the different tenure categories for all four main elements of the psychological contract. Isaksson (2005) reported that employers have a broader commitment to permanent employees and hence increased the likelihood to fail employee expectations. It is possible, that within these research results, the psychological contract for employees with a longer tenure, is broader; and lower levels of employee satisfaction results because of higher employee expectations.

Figure 22: Analysis of differences between tenure categories: Employer Obligations and **Figure 24: Analysis of Differences between Tenure Categories: Employee Obligations** show that there are significant differences in the content of the psychological contracts between different categories of tenure. Accepting the limitation as discussed in **Chapter 4.8 Limitations of the research**, the content of the psychological contract changes over length of tenure. This confirms the finding from Battu *et. al.* (2002) that the employment contract characteristics changes with tenure.

The implications of this are best described in the example from the research results that 70.6% of employees with 5 to 15 years tenure expect the organisation to be flexible in matching demands of non-work roles. The other three categories have an average expectancy from the employer of only 41.1% for the same element. Even though this is viewed as a very important element for employees in the 5 to 15 year category, the level of fulfilment for this specific element is low and somewhere between promise “not kept at all” and promises only “half-kept”.

In the questionnaire, a White male respondent said: “*At this time, promises are made but it is too early to say whether they are kept or not*”. This quote is not representative of the total sample, but highlights the possible impact tenure can have on the psychological contract.

Battu *et. al.* (2002) stated that longer tenure is an indication of a better match between employee and employer expectations. The results shown in **Figure 20: The impact of tenure on levels of fulfilment of the psychological contract** shows that longer tenure does not relate to a stronger and more fulfilled psychological contract.

Hennequin (2007) points out that blue-collar workers often lack the opportunity for promotion. It can be argued that the propensity for low and unskilled employees to leave is lower because of the high unemployment rate in South Africa. This means that length of tenure does not necessarily indicate a better match between employees and employers for low and unskilled employees in the underground coal mining industry.

Table 6: ANOVA test and Duncan's post hoc test for tenure categories and contract elements reveals that the gap between the fulfillment of employee obligations and employer obligations does not change over time. Tallman and Bruning (2008) related employees' personalities to the perceptions employees have of the psychological contract between the employer and themselves.

Tallman and Bruning (2008, p. 703) also "related personality to beliefs and attitudes". It is suggested that the gap between employer and employee obligations is based on personality, values and beliefs of employees, which does not change over time. This confirms the "idiosyncratic" nature of the psychological contract (Aggarwal & Bhargava, 2009).

The results of this study fail to reject the first part of Hypothesis 3, stating that the content of the psychological contract changes with an increase in tenure. The results of this study reject the second part of Hypothesis 3, which argues that the measure of fulfilment of the psychological contract for blue-collar workers increase over time.

6.4 Hypothesis 4: Impact of Demographics on the Contract

Hypothesis 4 states that there are differences in the psychological contracts of Black males, White males and Females in the low and unskilled labour force in the underground coal mining industry.

Duncan's Multiple Range Test in **Figure 15: Pearson Correlation Coefficient between the four main elements** shows that there is a significant difference between the state of the psychological contract for each of the three demographic groups. **Table 7: ANOVA and Duncan post hoc test for the three demographic groups**, shows significantly lower levels of satisfaction of the state of the contract for Black males (1.753) compared to Females (2.424) and White males (2.8571).

The Pearson Correlation between the four main fields of the contract, **Table 8: Pearson Correlation Coefficient for the Three Demographic Groups**, shows that employer obligation is strongly correlated to the state of the psychological contract and hence has the bigger impact on the health of the state of the contract. In understanding the low level of fulfilment, it is therefore important to analyse the level of fulfilment of employer obligations as seen by the respondents.

Figure 33: Mean per Question for Employer Obligations per Demographic

Group in the appendices shows that the biggest discrepancies between the fulfilment of obligations between Black males and White males are ascribed to the following employer obligation elements:

- No career advancement;
- No flexibility for non-work roles; and
- No participation in decision-making.

In a non-representative statement, one of the Black male respondents made the following comment: “*The Company does not fulfil their promises. The company has not done anything on my behalf because I worked for the company for 15 years being an operator with my standard 10 and some basic courses but no promotion (sic)*”. This comment voices his personal view on the level of fulfilment of employer obligations.

Table 7: ANOVA and Duncan post hoc test for the three demographic groups also shows that the level of fulfillment of employee obligations is significantly higher for White males compared to Black males but not compared to Females.

Tallman and Bruning (2008) argue that Females experience higher levels of obligations from employers because of gender inequality in the labour market in the past. The same argument could be used for Black males and Females in the mining industry in the current labour environment.

High levels of inequality and discrimination in the past may currently lead to Black males and Females to hold high expectations of obligation fulfillment from their employers.

Table 8: Pearson Correlation Coefficient for the Three Demographic Groups confirms that Females and Black males have high expectations from their employer. Employer obligations are the strongest when correlated with the state of the psychological contract for Females (PCC = 0.83) and Black males with a PCC of 0.67. The PCC for White males is the lowest with 0.48. White males, who were the “beneficiaries” of the inequality of the past, do not seem to be that much concerned with how well employer obligations are met (Tallman and Bruning, 2008, p. 705). The lower expectations they have of the employer, could lead them to have lower expectations of their obligations towards the employer. Lower expectations will result in a psychological contract that is easier to fulfill.

The results of this study fails to reject Hypothesis 4, which states that there are differences in the psychological contracts of Black males, White males and Females in the low and unskilled labour force in the underground coal mining industry.

6.5 Limitations of the Research

The demographic representation between the various tenure categories is inconsistent. Two of the tenure categories consist only of Black males. Females and White males only very recently found employment in the low and unskilled levels in the underground coal mining industry (Ndaba, 2008).

The research has shown that different demographic groups have different psychological contracts. The inconsistent representation in tenure categories is therefore a research limitation when analysing the impact of tenure on the psychological contract.

Figure 8: Percentage Omissions per Demographic Group, shows that the omission rate of this research exceeded that of the original Psycones research by Isaksson (2005). The high omission rate could result in the misrepresentation of employees' true responses to questions. The impact of this is the highest for the Female sample that had an average omission rate of 8.45%.

This study was done in one large underground coal mining company. Organisational practices and culture may have an influence on the beliefs and attitudes of respondents. This poses a limitation to extrapolating the results of this research at other coal mining companies and related industries. This limitation opens up an opportunity to test these hypotheses among blue-collar workers at other coal mining companies and in related industries.

7. Conclusion

7.1 State of the Contract

The results shown in **Figure 9: Employer and Employee Obligations: Total Sample** indicates that the employer obligations in the psychological contract of the respondents are not fully met. The strong correlation of employer obligations with the state of the contract, **Figure 15: Pearson Correlation Coefficient between the four main elements**, confirms the critical role of the employer in maintaining and improving the state of the psychological contract. Employers can do this by fulfilling the elements associated with employer obligations as perceived by employees.

Figure 22: Analysis of differences between tenure categories: Employer Obligations indicates that there are significant differences between the various tenure categories' perception of which elements are included in the psychological contract. **Figure 25: Content Analysis per Demographic Group: Employer Obligations** also indicates that significant differences exist between the contents of psychological contracts of the different demographic groups. Managers can make wrong assumptions about which elements are important for employees, which will lead to lower fulfilment of the employer obligations and the deterioration of the state of the contract.

Minimising psychological contract violations, involves managing the gaps between expectations and reality (Lee & Faller, 2005, p. 842). Aggarwal and Bhargava (2009, p. 13) highlight the concept of making the psychological contract more “explicit” through effective communication.

Aggarwal and Bhargava (2009) note that effective organisational communication in three specific areas, lead to a more positive perception of psychological contract fulfillment among employees. The three communication focus areas are:

- Introduction into the company during recruitment;
- Ongoing communication through performance reviews and training; and
- Ongoing discussions with employees on job and personal issues (Aggarwal and Bhargava, 2009)

Effective bottom-up communication is necessary to understand which promises are the important ones. Effective top-down communication is important to make the promises more explicit. interpersonal communication is required to give blue-collar employees the opportunity to discuss personal and job related aspects with their employers.

Figure 12: Total Sample Mean for Employee Obligations shows that the respondents regarded the fulfilment of their obligations towards the company superior to that of the fulfilment of the employer's obligations. **Table 6: ANOVA test and Duncan's post hoc test for tenure categories and contract elements** shows that this view of employees does not change over length of tenure.

Figure 10: Emotions and State of the Psychological Contract: Total Sample and **Table 3: Pearson Correlation Coefficient for the Total Sample**, show that the violations in employer obligations lead to an emotional response among employees. By contrast, violations of employee obligations do not lead to an emotional response by employees.

Tallman and Bruning (2008, p. 706) report that "psychological contracts may be more emotionally based than cognitively based and may also be less rational than we would like them to be". This is true for employer obligations but not employee obligations.

7.2 Content of the Contract

Figure 31: Top Five Employer Obligation Elements for the three demographic group, shows that more than half of the top five employer obligation elements in the psychological contract are relational elements.

The importance of social bonds amongst blue-collar workers is confirmed in this research with all three demographic groups listing the employer's obligation to "provide possibilities for employees to work together in a pleasant atmosphere", in the top five. This confirms the finding of Lucas and Buzzanell (2004) that blue-collar workers have been found to turn down promotion to supervisory levels rather than risk losing social bonds with fellow blue-collar workers. The psychological contract of blue-collar workers among peers can be verified and tested in future research.

Even though the top five employer obligations consist predominantly of relational elements, the transactional element of the psychological contract cannot be neglected. **Figure 14: Total Sample Mean for the State of the Contract**, shows that respondents are not feeling well rewarded for the job they are doing.

Table 3: Pearson Correlation Coefficient for the Total Sample, shows that employee obligations are weakly correlated to the state of the contract. This could indicate an external locus of control for low and unskilled employees.

Robbins and Judge (2007, p 114) defines people with an external locus of control as “individuals who believe that what happens to them is controlled by outside forces”. Atkinson and Cuthbert (2006) argue that managers might underestimate the impact of the transactional element of the psychological contract and focus too much on the relational element. This could very well be the case for employees with an external locus of control.

However, **Figure 31: Top Five Employer Obligation Elements for the three demographic groups**, shows that most of the top five elements in the employer obligations are relational elements. In motivating low and unskilled employees with an external locus of control, managers might over emphasise the use of external rewards. The excessive use of external rewards and transactional elements when employees indeed want more relational attention, leads to lower levels of fulfilment of the psychological contract. This leads to further deterioration of a state of the contract and lower performance (Aggarwal and Bhargava, 2009).

Reward programmes based on bonuses for exceeding targets may also have other harmful effects (Lucas and Buzzanell, 2004). Reward systems based on financial rewards only, may result in acceptance of risk in order to reach the objective, leading to an increase in safety violations.

7.3 Impact of Tenure on the Contract

Table 6: ANOVA test and Duncan's post hoc test for tenure categories and contract elements shows a significant reduction in levels of fulfilment across the different tenure categories in all four main elements of the psychological contract. **Figure 22: Analysis of differences between tenure categories: Employer Obligations** and **Figure 24: Analysis of Differences between Tenure Categories: Employee Obligations**, also shows there are significant differences between different categories of tenure.

The satisfaction levels thus go down for all four main categories of the psychological contract as tenure increases. **Table 6: ANOVA test and Duncan's post hoc test for tenure categories and contract elements**, shows that the fulfillment for employees with tenure of longer than 15 years is significantly lower than other categories. This could indicate a level of disengagement at this level.

Table 6: ANOVA test and Duncan's post hoc test for tenure categories and contract elements shows that the gap between the fulfillment of employee obligations and employer obligations does not change over time.

The results shown in **Figure 20: The impact of tenure on levels of fulfilment of the psychological contract**, apposes the findings of Battu *et. al.* (2002) who state that long tenure is an indication of a better match between employee and employer expectations. The results of this research indicate that long tenure does not relate to a stronger and more fulfilled psychological contract.

Organisations need to establish flexible and differentiated management and human relation practices to fulfill their obligations to employees in different tenure categories.

Figure 22: Analysis of differences between tenure categories: Employer Obligations and **Figure 24: Analysis of Differences between Tenure Categories: Employee Obligations**, show evidence that common ground exists between the various tenure categories. Management and human relations practices should also focus on enhancing and leveraging common ground between the various tenure categories.

7.4 Impact of Demographics on the Contract

Figure 15 shows a significant difference in the level of fulfillment between the three demographic groups for each of the main elements of the psychological contract. The level of fulfillment of all the main elements is significantly higher for White males than for Black males.

Table 8: Pearson Correlation Coefficient for the Three Demographic Groups, shows that Females and Black males have higher expectations from their employer, compared to White males. This is due to the stronger correlation between employer obligations and the state of the contract for Black males and Females compared to White males. Lee and Faller (2005) state that contract violations could be minimised by managing the expectations from employees. Higher expectations of Black males and Females result in the lower levels of fulfillment. Lower expectation levels from White males result in higher levels of fulfillment.

Tallman and Bruning (2008) found that Females experience a stronger sense of obligation from their employers. **Table 8: Pearson Correlation Coefficient for the Three Demographic Groups**, confirms that Females have the strongest correlation between employer obligations and the state of the contract. Once employers manage to fulfill these obligations, Females will also show a stronger sense of obligation and commitment towards the employer (Tallman & Bruning, 2008).

Figure 26: Analysis of difference between Demographic Groups: Employer Obligations, shows that Black males do not perceive “being provided with a career” as part of the employer obligations. **Figure 25: Content Analysis per Demographic Group: Employer Obligations** shows that only 38.7% of Black male respondents perceive the “providing of a career” as an employer obligation within the psychological contract. This is in contrast to White males (74.2%) and Females (65.8%) perception of the employer obligation of providing a career.

Figure 20: The impact of tenure on levels of fulfilment of the psychological contract show that the level of fulfillment has a consistent decline with tenure for all four main elements of the psychological contract. Black males in the mining industry have given up on the employer’s promise of a career. This is symbolised in a non-representative comment from one of the Black male respondents: “*The Company promises us that they are going to develop us, but its only whites and women who are being developed (sic)*”.

Organisations need to understand that career success for blue-collar workers is not only “material career success”, but also include other elements such as “psychological career success” and “social career success” (Hennequin, 2007, p. 573). Organisations often create career paths for low and unskilled employees based on “white-collar” perceptions of success (Lucas and Buzzanell, 2004).

Other career path and growth alternatives for Black males with low educational levels need to be developed. Borat (2000) showed that 72% of the labour force in the mining industry does not have a matriculation certificate. This is a career constraint for Black males in the mining industry.

Promotions for low and unskilled workers should also include elements to give blue-collar workers more social-status. Hennequin defines three criteria that are necessary for social career success:

- “Social status” among peers and based on the “social group they belong to”;
 - “Recognition” for “knowledge, behaviour and work quality from inside the organisation and from outside groups”; and
 - “Reputation” of the company they work for. “Blue-collar workers feel more respected when the company they work for is well known”.
- (Hennequin, 2007, p. 576)

Hausknecht, Rodda and Howard (2008) stated that differentiated labour practices could be required to ensure a committed and engaged labour force.

Figure 26: Analysis of difference between Demographic Groups: Employer Obligations, confirms the need for organisations to establish flexible and differentiated management and human relation practices to fulfill their obligations towards employees in different demographic groups.

Figure 26: Analysis of difference between Demographic Groups: Employer Obligations, shows that common ground exists between the different demographic groups. Management and human relations practices should also focus on enhancing and leveraging the common ground among the different demographic groups.

7.5 Summary of Main Findings

The main findings of this research for blue-collar workers in the underground coal mining industry in South Africa, are listed below:

- Employer obligations are not fully met for blue-collar workers in the underground coal mining industry.
- The state of the psychological contract is strongly correlated to the fulfillment of employer obligations in the psychological contract of blue-collar workers. Unfulfilled employer obligations leads to the deterioration of the state of the psychological contract.
- Employees in all demographic groups view the fulfillment of their obligations to be superior to the fulfillment of employer obligation.
- The gap between employee and employer obligations does not change over time.
- Employee obligations are weakly correlated to the state of the psychological contract for all tenure categories and demographic groups. This indicates that employees have an external locus of control (Robbins & Judge, 2007)
- Employer obligation violations lead to an emotional response by employees while employee obligation violations do not.
- At least three out of the top five employer obligation elements in the psychological contract are relational.
- Blue-collar workers have a broad range of criteria in how they define a successful career.
- “Being fairly rewarded” for a job remains an important element in the overall state of the psychological contract.

The main findings of this research for blue-collar workers in the underground coal mining industry in South Africa, continue below:

- Fulfillment levels for the four main elements of the psychological contract reduce significantly with length of tenure.
- There are significant differences in the contents of the employer and employee obligations contracts of employees in different tenure categories.
- Long tenure is not an indication of a better match between the employee and the employer for blue-collar workers.
- The state of the psychological contract differs significantly for blue-collar among the three demographic groups.
- Black males experience significant lower levels of fulfillment of employer obligations of the psychological contract.
- White males have the highest level of fulfillment of employer obligations of the psychological contract.
- Females have the highest expectations from the employer, followed by Black males. White males have the lowest level of expectations from the employer.

7.6 Future Research

Future research to confirm and measure the psychological contract blue-collar workers have with their peers will enhance the knowledge of the psychological contract among blue-collar workers. Knowledge of peer-focussed contracts could give provide new opportunities to manage and motivate blue-collar workers. This could lead to an increase in organisational effectiveness and productivity.

Atkinson and Cuthbert (2006) pointed out that research on psychological contracts are likely to depend on the specific context and that comparative studies in other contexts will be of value to improve the understanding of blue-collar psychological contracts. This research should be repeated among blue-collar workers at other coal mining companies and related industries.

The results of research of this nature can only enhance clear understanding of the psychological contracts of blue-collar workers. Organisational performance is bound to improve when management and human resource practices are adapted to ensure psychological contract obligations are better understood and fulfilled in the mining industry in particular and related industries in general.

8. References

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9. Appendices

9.1 Consistency Matrix

Title: The role of the psychological contract among blue-collar workers in the underground coal mining industry

Hypothesis	Literature Review	Data Collection Tool	Analysis
Research Hypothesis 1: The psychological contract requirements of low and unskilled workers in the underground coal mining industry are not fully met.	Lee and Mohamed, 2006 Freese and Schalk, 2008 Zhao, Wayne, Glibkowski, and Bravo, 2007	Pilot survey Quantitative research using a questionnaire (Psycones, 2005)	Descriptive and inferential statistics using statistical software NCCS
Research Hypothesis 2: The transactional element of the psychological contract for blue-collar workers in the underground coal mining industry is not more significant than	Lucas and Buzzanell, 2004 Aggarwal & Bhargava, 2009 Hausknecht, Rodda and Howard, 2008	Pilot survey Quantitative research using a questionnaire (Psycones, 2005)	Descriptive and inferential statistics using statistical software

the relational element.	Atkinson and Cuthbert, 2006		NCCS
Research Hypothesis 3: The content change and the measure of fulfilment of the psychological contract for blue-collar workers in the underground coal mining industry increases with length of tenure.	Lee and Faller, 2005 Battu, H., McMaster, R. & White, M., 2002	Pilot survey Quantitative research using a questionnaire (Psycones, 2005)	Descriptive and inferential statistics using statistical software NCCS
Research Hypothesis 4: There are differences in the psychological contracts of Black males, White males and Females in the low and unskilled labour force in the underground coal mining industry.	Wöcke and Sutherland, 2008 Cole, 2004	Pilot survey Quantitative research using a questionnaire (Psycones, 2005)	Descriptive and inferential statistics using statistical software NCCS

9.2 Questionnaire

BACKGROUND INFORMATION

Make a cross (x) in the appropriate square and complete where required.

1.	<u>Gender?</u>	Female	1
		Male	2
2.	<u>Years employed at your current employer?</u>		
3.	<u>Ethnic Group</u>	Asian	1
		Black	2
		Coloured	3
		White	4
4.	<u>Job Level</u>	MSP New (Previously Wage)	1
		MSP (Artisan & Miner)	2
		SP	3
5.	<u>Language Preference for Questionnaire</u>	English	1
		Zulu	2



This questionnaire:		ENGLISH				
Question number	Items	Question	Type a X into the most applicable box			
A		EMPLOYER OBLIGATIONS: Next follows a list of some promises and commitments which organisations sometimes make to their employees. For each, I would like you to consider whether such a promise has been made by this organisation either formally or informally and the extend to which it has been fulfilled	0 No	1 Yes, but promise not kept at all	2 Yes, but promise half kept	3 Yes, promise fully kept
1	q17a	Did your organisation promise to provide you with interesting work?				
2	q17b	Did your organisation promise to provide you with a reasonably secure job?				
3	q17c	Did your organisation promise to provide you with good pay for the work you do?				
4	q17d	Did your organisation promise to provide you with a job that is challenging?				
5	q17e	Did your organisation promise to allow you to participate in the decision-making?				
6	q17f	Did your organisation promise to provide you with a career?				
7	q17g	Did your organisation promise to provide a good working atmosphere?				
8	q17h	Did your organisation promise to ensure fair treatment by managers and supervisors?				
9	q17i	Did your organisation promise to be flexible in matching demands of non-work roles with work?				
10	q17j	Did your organisation promise to provide possibilities to work together in a pleasant way?				
11	q17jk	Did your organisation promise to provide you with opportunities to advance and grow?				
12	q17l	Did your organisation promise to provide you with a safe working environment?				
13	q17m	Did your organisation promise to improve your future prospects?				
14	q17n	Did your organisation promise to provide an environment free from violence and harassment?				
15	q17o	Did your organisation promise to help you deal with problems you encounter outside work?				
<p><i>Please indicate your general experience of the employer's promises made and kept to you :</i></p>						



Question number	Items	Question	Type a X into the most applicable box			
			0 No	1 Yes, but promise not kept at all	2 Yes, but promise half kept	3 Yes, promise fully kept
B		EMPLOYEE OBLIGATIONS: The following list consist of some promises and commitments that people sometimes make to their organisation. For each, I would like you to consider whether you made such a promise to this organisation, either formally or informally, and the extend to which it has been fulfilled. Have you promised or committed yourself to....				
1	q19a	Have you promised or committed yourself to go to work even if you do not feel particularly well?				
2	q19b	Have you promised or committed yourself to protect your company's image?				
3	q19c	Have you promised or committed yourself to show loyalty to your organisation?				
<i>If you indicated No (0) above, please explain why you did not make this promise :</i>						
4	q19d	Have you promised or committed yourself to work overtime or extra hours when required?				
5	q19e	Have you promised or committed yourself to be polite to customers or the public when they are being rude and unpleasant to you?				
6	q19f	Have you promised or committed yourself to be a good team player?				
<i>If you indicated No (0) above, please explain why you did not make this promise :</i>						
7	q19g	Have you promised or committed yourself to turn up for work on time?				
8	q19h	Have you promised or committed yourself to assist others with their work?				
9	q19i	Have you promised or committed yourself to volunteer to do tasks outside your job requirements?				
<i>If you indicated No (0) above, please explain why you did not make this promise :</i>						
10	q19j	Have you promised or committed yourself to develop your skills to be able to perform well in this job?				
11	q19k	Have you promised or committed yourself to meet the performance expectations in your job?				
12	q19l	Have you promised or committed yourself to accept an internal transfer if necessary?				
13	q19m	Have you promised or committed yourself to provide the organisations with innovative suggestions for improvement				
14	q19n	Have you promised or committed yourself to develop new skills and improve your current skills				
15	q19o	Have you promised or committed yourself to respect the rules and regulations of the company?				
16	q19p	Have you promised or committed yourself to work enthusiastically on jobs you would prefer not to be doing?				
17	q19q	Have you promised or committed yourself to take responsibility for your career development				
<i>Please indicate your general experience of the promises you made and kept to the employer :</i>						

Question number	Items	Question	Type a X into the most applicable box			
			1 Strongly Disagree	2 Neither agree or disagree	3 Agree Somewhat	4 Strongly Agree
C			EMOTIONS CONCERNING PSYCHOLOGICAL CONTRACT (EMPLOYMENT CONTRACT): Looking overall at how far this organisation has or has not kept its promises and commitments, to what extend do you agree with the following statements? I feel..			
1	q18a	Looking overall at how far this organisation has or has not kept its promises and commitments, to what extend do you agree with the following statement? <u>I feel happy?</u>				
2	q18b	Looking overall at how far this organisation has or has not kept its promises and commitments, to what extend do you agree with the following statement? <u>I feel angry?</u>				
3	q18c	Looking overall at how far this organisation has or has not kept its promises and commitments, to what extend do you agree with the following statement? <u>I feel pleased?</u>				
4	q18d	Looking overall at how far this organisation has or has not kept its promises and commitments, to what extend do you agree with the following statement? <u>I feel violated?</u>				
5	q18e	Looking overall at how far this organisation has or has not kept its promises and commitments, to what extend do you agree with the following statement? <u>I feel disappointed?</u>				
6	q18f	Looking overall at how far this organisation has or has not kept its promises and commitments, to what extend do you agree with the following statement? <u>I feel grateful?</u>				
<i>You are welcome to make further comments on your emotions concerning your relationship with the employer:</i>						
D			STATE OF THE PSYCHOLOGICAL CONTRACT (EMPLOYMENT CONTRACT): Please answer the following questions			
1	q20a	Overall, do you feel you are rewarded fairly for the amount of effort you put into your job?				
2	q20b	To what extend do you trust senior management to look after your best interests?				
3	q20c	Do you feel that organisational changes are implemented fairly in your organisation?				
4	q20d	In general, how much do you trust your organisation to keep promises or commitments to you and other employees?				
5	q20e	Do you feel you are fairly paid for the work you do?				
6	q20f	To what extend do you trust your immediate line manager to look after your best interests?				
7	q20g	Do you feel fairly treated by managers and supervisors?				
<i>You are welcome to make further comments on the state of your psychological contract (employment contract):</i>						

Isaksson, K. (2005). Psychological contracts across employment situations: Psycons. Available from www.uv.es/~psycon

THANK YOU

9.3 Missing Values

Table Number and percentage of missing values for each question

Questions	Total n = 179	Missing	%
Background Information			
v1	Gender	0	0.0%
v2	Years Employed	23	12.8%
v3	Ethic Group	0	0.0%
v4	Job Level	2	1.1%
v5	Language	1	0.6%
Employer Obligations			
a1	Interesting Work	2	1.1%
a2	Secure Job	1	0.6%
a3	Good Pay	4	2.2%
a4	Challenging Job	5	2.8%
a5	Participative Decision-making	6	3.4%
a6	Career Provided	4	2.2%
a7	Good Working Atmosphere	11	6.1%
a8	Fair Treatment	4	2.2%
a9	Non-work Roles	14	7.8%
a10	Work Together in a Pleasant way	7	3.9%
a11	Opportunities to Advance & Grow	8	4.5%
a12	Safe Working Environment	6	3.4%
a13	Future Prospects	1	0.6%
a14	Violance and Harassment	2	1.1%
a15	Problems Outside Work	1	0.6%
Employee Obligations			
b1	Not Feeling Well	3	1.7%
b2	Protect Company Image	4	2.2%
b3	Show Loyalty	5	2.8%
b4	Overtime	6	3.4%
b5	Polite to Customer	6	3.4%
b6	Good Team Player	6	3.4%
b7	Turn up for Work On Time	3	1.7%
b8	Assist Others	2	1.1%
b9	Volunteer outside Job Requirements	2	1.1%
b10	Develop Own Skills	6	3.4%
b11	Performance Expectations	7	3.9%
b12	Accept Internal Transfer	4	2.2%

b13	Provide Innovative Suggestions	6	3.4%
b14	Develop New Skills	5	2.8%
b15	Respect Rules and Regulations	4	2.2%

Emotions

c1	Happy	10	5.6%
c2	Angry	12	6.7%
c3	Pleased	14	7.8%
c4	Violated	13	7.3%
c5	Disappointed	14	7.8%
c6	Grateful	14	7.8%

State of the Psychological Contract

d1	Fairly rewarded	8	4.5%
d2	Senior management is trusted	9	5.0%
d3	Organisational changes implemented fairly	11	6.1%
d4	Trust the organisation to keep promises	8	4.5%
d5	Fairly paid	9	5.0%
d6	Line manager is trusted	12	6.7%
d7	Fairly treated by managers and supervisors	8	4.5%

9.4 Omissions for the Four Main Questions

The tables below shows the number and percentage of questions not answered per main heading of the questionnaire:

Employer Obligations		
Number of Questions Not Answered	Number of Respondents	Percentage Completed
0	147	82.12
1	20	11.17
2	6	3.35
3	1	0.56
4	2	1.12
9	1	0.56
12	2	1.12

Table 9 Omissions on Employer Obligation Questions

Employee Obligations		
Number of Questions Not Answered	Number of Respondents	Percentage Completed
0	166	92.74
1	2	1.12
2	3	1.68
3	1	0.56
4	1	0.56
5	1	0.56
6	1	0.56
7	1	0.56
9	1	0.56
12	1	0.56
15	1	0.56

Table 10 Omissions on Employee Obligations Questions

Emotions		
Number of Questions Not Answered	Number of Respondents	Percentage Completed
0	162	90.5
1	4	2.23
4	2	1.12
5	1	0.56
6	10	5.59

Table 11: Omissions on Emotions Questions

State of the Psychological Contract		
Number of Questions Not Answered	Number of Respondents	Percentage Completed
0	163	91.06
1	7	3.91
2	1	0.56
7	8	4.47

Table 12: Omissions on State of the psychological contract Questions

9.5 Percentage representation of elements per Tenure Category

Question	% Yes (i.e. Included in PC)			
	0-1 year	1.1 - 5 years	5.1 - 15 years	15+ years
a1	69.1%	70.7%	64.7%	42.9%
a2	78.2%	68.3%	64.7%	64.3%
a3	68.5%	55.0%	64.7%	50.0%
a4	75.5%	57.5%	64.7%	47.6%
a5	54.7%	41.5%	41.2%	34.1%
a6	58.2%	48.8%	64.7%	26.2%
a7	81.3%	60.0%	64.7%	36.6%
a8	77.4%	68.3%	70.6%	51.2%
a9	47.9%	46.2%	70.6%	29.3%
a10	86.5%	79.5%	94.1%	59.5%
a11	79.2%	82.5%	82.4%	69.2%
a12	92.5%	84.6%	88.2%	81.0%
a13	71.4%	75.6%	64.7%	59.5%
a14	78.2%	75.6%	76.5%	71.4%
a15	56.4%	51.2%	52.9%	52.4%
b1	49.1%	37.5%	35.3%	22.0%
b2	96.3%	80.0%	70.6%	73.2%
b3	100.0%	92.5%	88.2%	80.5%
b4	94.4%	92.3%	88.2%	75.0%
b5	98.1%	92.5%	76.5%	78.0%
b6	100.0%	95.0%	94.1%	92.7%
b7	100.0%	97.6%	100.0%	95.1%

b8	90.9%	82.9%	82.4%	68.3%
b9	72.7%	61.0%	58.8%	41.5%
b10	90.9%	92.3%	81.3%	92.7%
b11	98.1%	97.4%	93.8%	97.6%
b12	92.7%	97.6%	100.0%	87.8%
b13	88.9%	85.4%	93.8%	75.6%
b14	92.6%	95.1%	87.5%	78.0%
b15	100.0%	92.7%	93.8%	95.1%
b16	73.1%	57.5%	62.5%	51.2%
b17	98.1%	95.0%	81.3%	75.6%

Table 13: Percentage representation of elements per tenure category

9.6 Percentage representation of elements per Demographic Group

Question	% Yes (i.e. Included in PC)		
	Black Males	Females	White Males
a1	62.6%	65.8%	81.3%
a2	66.4%	76.9%	90.6%
a3	51.4%	70.3%	80.6%
a4	56.1%	74.3%	71.9%
a5	37.7%	54.1%	70.0%
a6	38.7%	65.8%	74.2%
a7	51.4%	78.8%	90.0%
a8	56.6%	86.5%	93.8%
a9	38.7%	40.0%	86.2%
a10	75.0%	83.3%	93.8%
a11	73.8%	86.1%	87.5%
a12	81.9%	97.2%	100.0%
a13	65.4%	69.2%	90.6%
a14	70.1%	86.8%	87.5%
a15	48.6%	56.4%	81.3%
b1	20.2%	40.0%	87.5%
b2	77.1%	94.7%	96.9%
b3	88.6%	97.3%	96.9%
b4	82.5%	94.7%	100.0%
b5	83.7%	91.9%	87.5%
b6	95.2%	100.0%	96.9%

b7	97.1%	100.0%	100.0%
b8	79.0%	87.5%	93.8%
b9	50.5%	67.5%	90.6%
b10	91.3%	92.1%	90.6%
b11	96.1%	100.0%	96.9%
b12	92.4%	94.7%	87.5%
b13	82.7%	83.8%	90.6%
b14	88.6%	83.8%	96.9%
b15	95.2%	97.4%	100.0%
b16	56.3%	68.6%	87.5%
b17	84.8%	97.2%	96.9%

Table 14: Percentage Representation of elements for the Demographic Groups

9.7 Mean per Question per Demographic Group

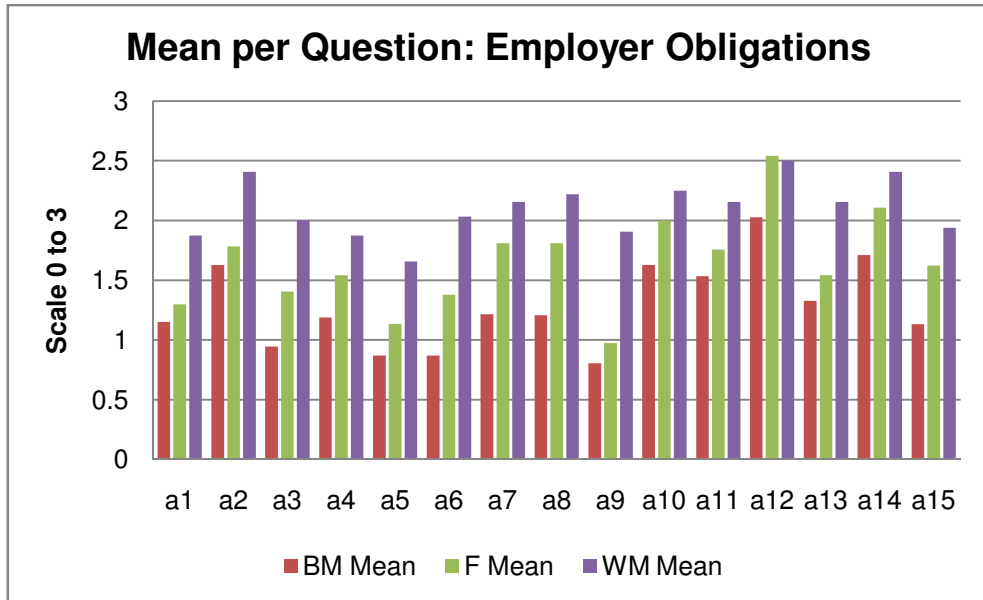


Figure 33: Mean per Question for Employer Obligations per Demographic Group

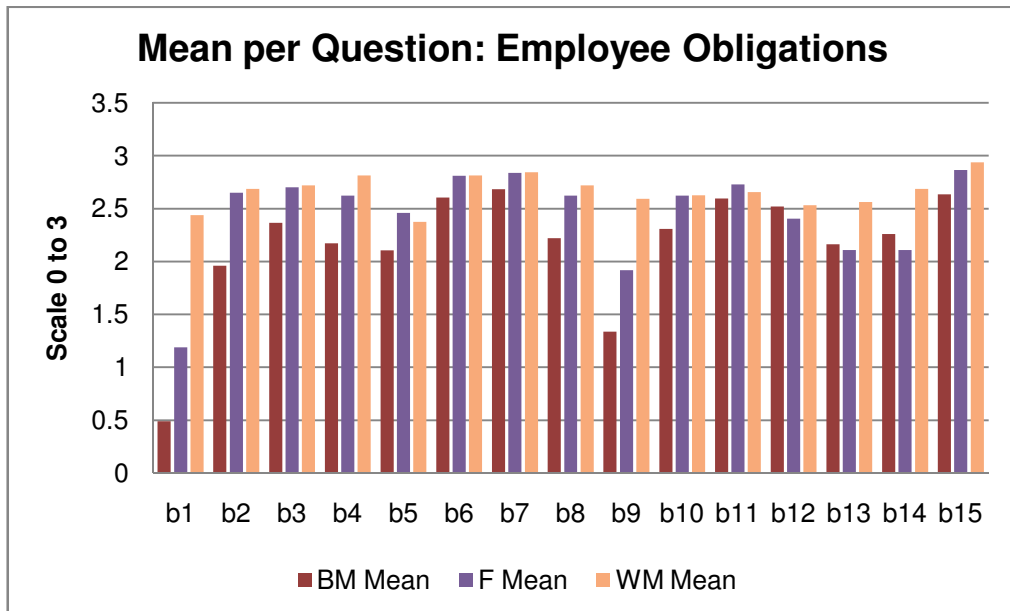


Figure 34: Mean per Question for Employee Obligations per Demographic Group

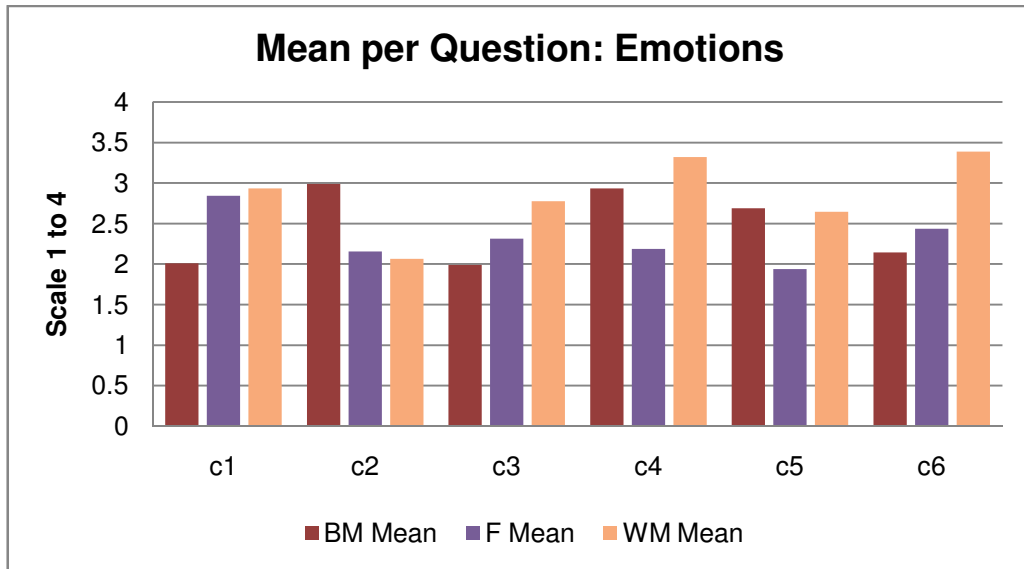


Figure 35: Mean per Question for Emotions per Demographic Group

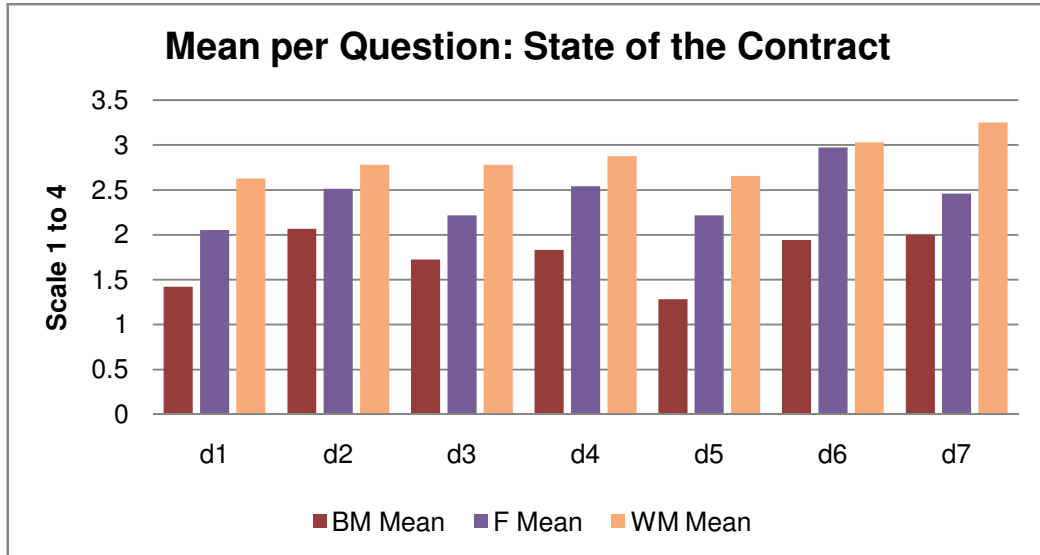


Figure 36: Mean per Question for State of the Contract per Demographic Group

9.8 Mean per Question per Tenure Category

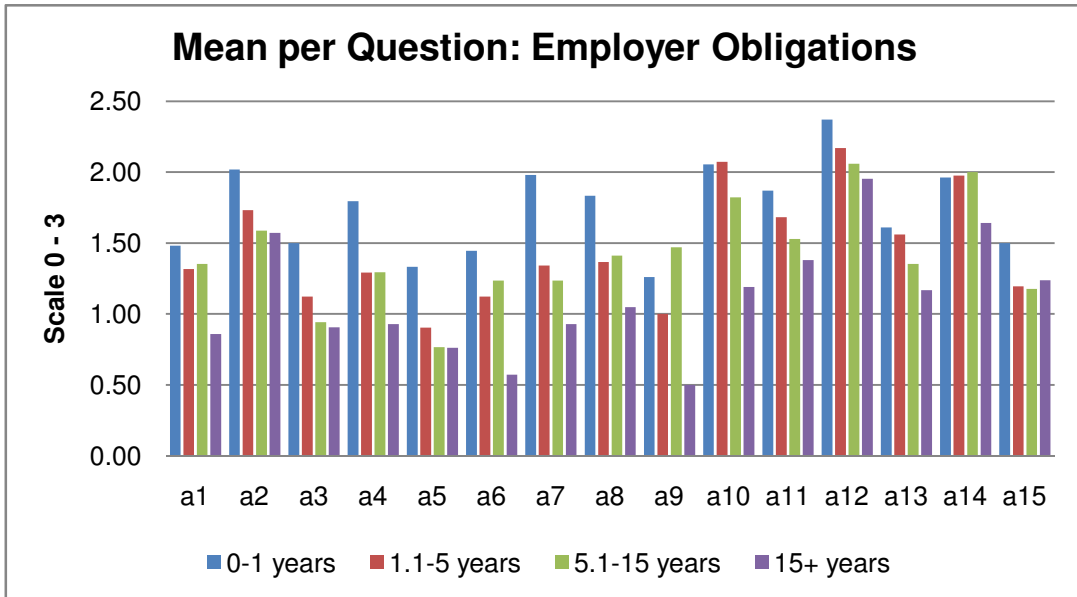


Figure 37: Mean per question for Tenure Categories: Employer Obligations

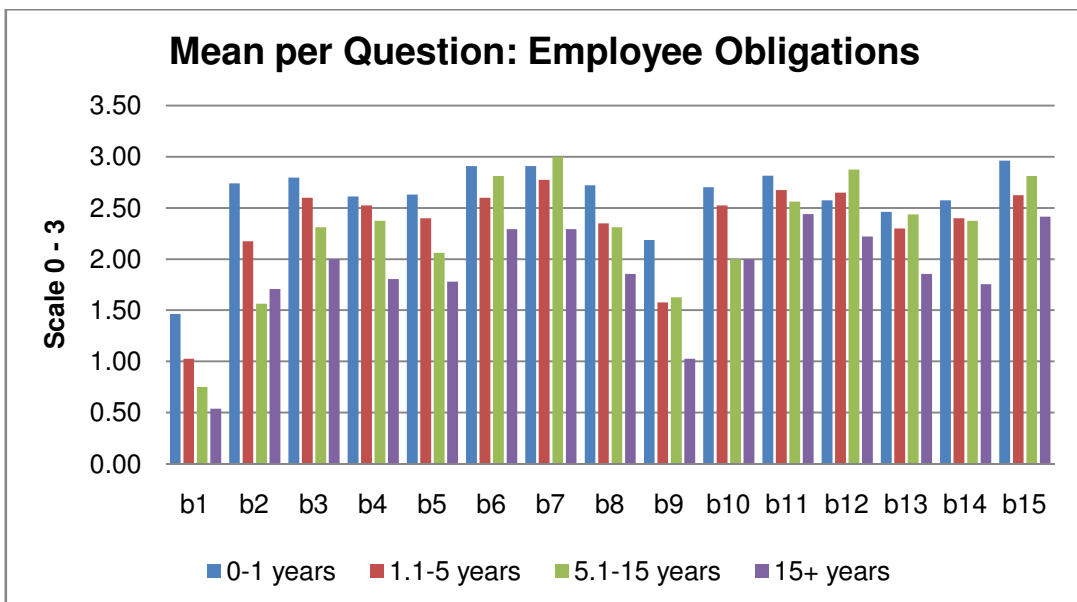


Figure 38: Mean per question for Tenure Categories: Employee Obligations

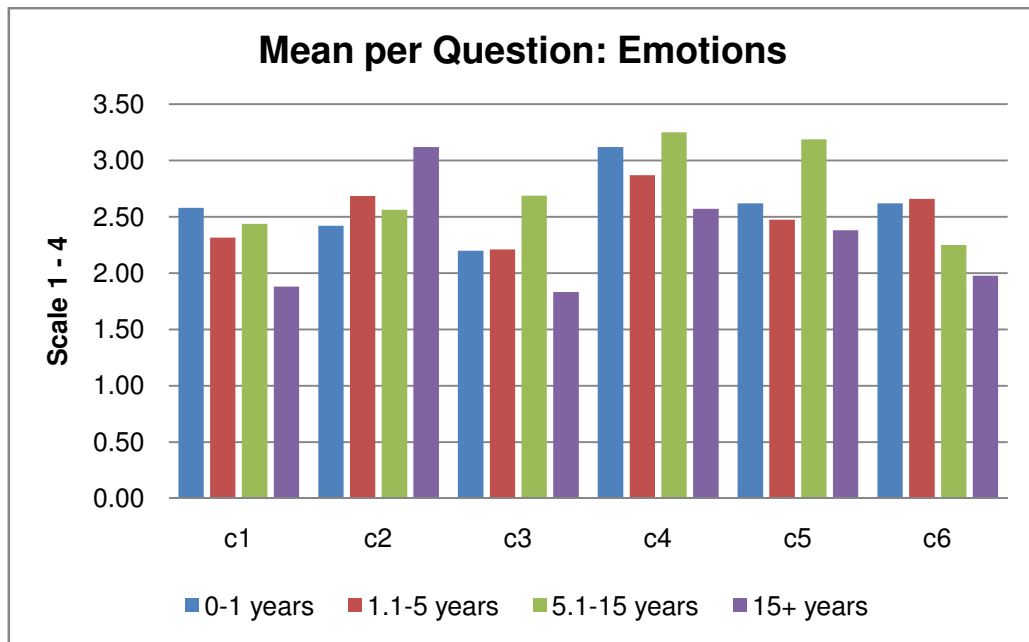


Figure 39: Mean per question for Tenure Categories: Emotions

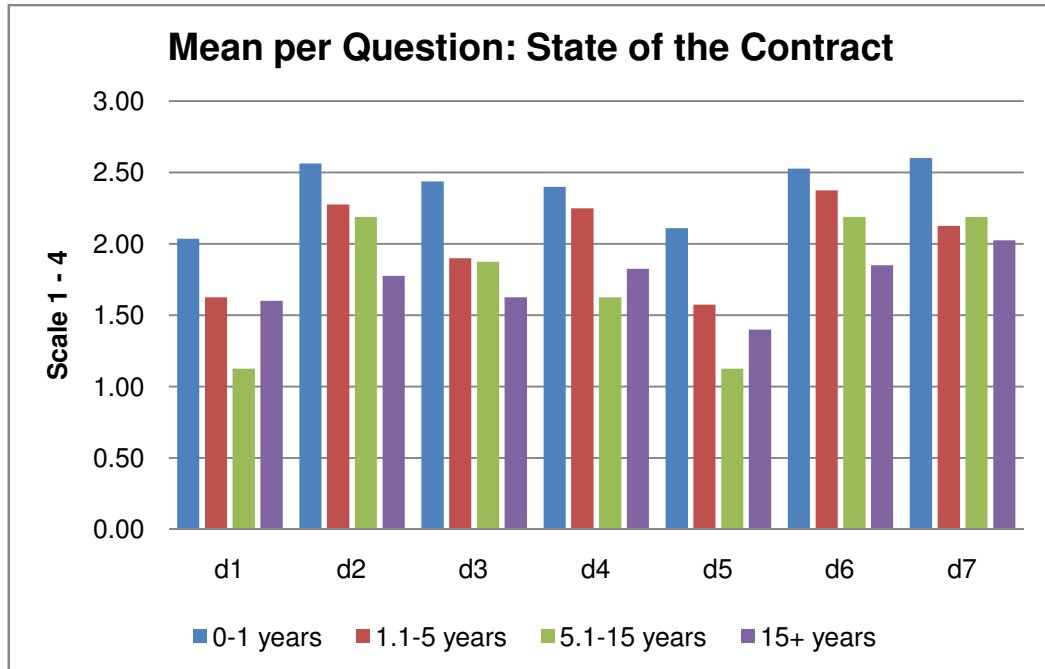


Figure 40: Mean per question for Tenure Categories: State of the Contract