



Women in mining: a conceptual framework for gender issues in the South African mining sector

D. Botha

10147284

Thesis submitted for the degree

Doctor Philosophiae in Sociology

on the Potchefstroom Campus of the North-West University

Promoter: **Prof. JF Cronjé**

November 2013

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to the following people and organisations, without which this thesis would not have been possible:

- My Heavenly Father, for giving me the ability, strength and courage to complete this thesis
- My husband, Christoff, for his patience, continued assistance and support (also academically) to enable me to complete this study
- My children, Nestene and Ockert-Johan, for their support and encouraging words during the times I needed it the most
- My parents, Lambert and Neeltjie, for believing in me and teaching me to never give up during hard times
- My promoter, Prof. Freek Cronjé, for his wealth of knowledge, insight, continued support and professional guidance throughout this project
- The mining companies included in the study, for granting me permission to conduct this research and providing me with the necessary assistance and support during the fieldwork
- All the research participants, for offering their valued time to complete the questionnaires and to participate in the semi-structured interviews and focus group discussions – without their participation, this study would not have been possible
- Prof. Dewald van Niekerk and all my other colleagues at the African Centre for Disaster Studies, for their interest and support, which made it possible for me to spend more time on writing this thesis
- Ms Laetitia Bedeker, for the professional manner in which she conducted the language and reference editing
- Mrs Susan van Biljon, for the professional manner in which she conducted the technical and typographical editing
- Mrs Suria Ellis of the Statistic Consultation Service of North-West University, for her professional statistical guidance and support

SUMMARY

Keywords: affirmative legislation; core mining activities; gender equality; gender inequality; transformation; mining industry; women in mining

The Mineral and Petroleum Resources Development Act (28 of 2002) (MPRDA) and the accompanied Broad-based Socio-economic Empowerment Charter aimed to rectify previous inequalities and disadvantages in the mining sector and specifically provide for the inclusion of women in core mining activities. According to the Act and the Charter, the mining industry was supposed to reach a quota of 10% women in core mining activities by 2009. The amendment of the Broad-based Socio-economic Empowerment Charter for the South African Mining and Minerals Industry (launched in 2010) set further requirements in terms of employment equity targets; the Charter requires a 40% historically disadvantaged South African representation in core and critical skills by 2015. Although well intended, the establishment of gender equality in the male-dominant mining sector remains one of the biggest equity challenges in the country and numerous problems accompany the deployment of women in core mining activities.

Against this background, the main objective of the study was to critically analyse gender issues in the mining sector and to subsequently develop a conceptual framework that will enable the mining sector to contribute to and ensure the sustainable employment of women in the mining sector. A literature review was done, firstly to provide an understanding of persistent inequalities in society and the workplace, and secondly to gain an in-depth understanding of the variables that have an impact on women in the world of work in general and in the mining sector specifically. An empirical study was conducted to determine and investigate relevant gender-related issues in the mining sector. Quantitative (questionnaires) and qualitative (semi-structured interviews, focus group discussions and direct observation) research paradigms were used.

From the literature review as well as the empirical study, it is evident that the deployment of women in core positions is still accompanied by various challenges, not only for managers but also for male co-workers as well as the women themselves. Although the numbers of women in the South African mining industry have risen, there is still a long way to go to successfully and sustainably ensure women's participation in the industry. Through the literature study and the empirical research, it became clear that various

factors need to be considered for the successful and sustainable deployment of women in the mining sector. The study concludes by making recommendations and offering a conceptual framework, with the main pillars being company policies, workplace opportunities, infrastructure facilities, physical ability, health and safety and workplace relations. This framework can be implemented and used by various stakeholders in the mining sector to contribute to the successful and sustainable deployment of women in the mining sector.

OPSOMMING

Sleutelwoorde: regstellende wetgewing; kernmynaktiwiteite; geslagsgelykheid; geslagsongelykheid; transformasie; mynbedryf; vrou in mynwese

Die Wet op Minerale- en Petroleum-hulpbronontwikkeling (28 van 2002) (MPRDA) en die gepaardgaande Handves vir Breedgebaseerde Sosio-ekonomiese Bemagtiging is gemik op die regstelling van voormalige ongelykhede en benadeling in die mynsektor en spesifiek op die insluiting van vroue by kernmynaktiwiteite. Ingevolge die Wet en die Handves was die mynbedryf veronderstel om teen 2009 'n kwota van 10% vroue in kernmynaktiwiteite te behaal. Die wysiging van die Handves vir Breedgebaseerde Sosio-ekonomiese Bemagtiging vir die Suid-Afrikaanse Myn- en Mineralebedryf (in 2010 uitgevaardig) het verdere vereistes met betrekking tot mikpunte vir diensbillikheid gestel; die Handves vereis 40% verteenwoordiging deur histories benadeelde Suid-Afrikaners in kern- en kritiese vaardighede teen 2015. Alhoewel die bedoeling goed is, bly die vestiging van geslagsgelykheid in die mynsektor, wat steeds deur mans gedomineer word, een van die grootste uitdagings in die land en hou die benutting van vroue in kernmynaktiwiteite steeds verskeie probleme in.

Ten hierdie agtergrond was die vernaamste doelstelling van hierdie studie om geslagskwessies in die mynsektor krities te ontleed en gevolglik 'n konseptuele raamwerk te ontwikkel wat die mynsektor in staat sal stel om by te dra tot die volhoubare indiensneming van vroue in die mynsektor. 'n Literatuuroorsig is uitgevoer om eerstens begrip te bewerkstellig van volgehoue ongelykhede in die samelewing en werkplek, en tweedens om 'n grondige begrip te verkry van die veranderlikes wat 'n impak het op vroue in die wêreld van werk in die algemeen en spesifiek in die mynsektor. 'n Empiriese studie is uitgevoer om geslagsverwante kwessies in die mynsektor te bepaal en te ondersoek. Kwantitatiewe (vraelyste) en kwalitatiewe (semigestruktureerde onderhoude, fokusgroepbesprekings en direkte waarneming) navorsingsparadigmas is gebruik.

Uit die literatuuroorsig en die empiriese studie is dit duidelik dat die benutting van vroue in kernposisies steeds verskeie uitdagings inhou, nie net vir bestuurders nie, maar ook vir manskollegas en die vroue self. Alhoewel die getal vroue in die Suid-Afrikaanse mynbedryf toegeneem het, lê 'n lang pad na die suksesvolle en volhoubare versekering van vroue se deelname aan die bedryf steeds voor. Uit die literatuurstudie en die

empiriese navorsing blyk dit duidelik dat verskeie faktore in ag geneem sal moet word ten einde die suksesvolle en volhoubare benutting van vroue in die mynsektor te verseker. Die studie sluit af met aanbevelings en 'n konseptuele raamwerk, met die volgende hoofpilare: maatskappybeleide, werkplekgeleenthede, infrastruktuurfasiliteite, fisiese vermoëns, gesondheid en veiligheid en werkplekverhoudings. Hierdie raamwerk kan deur verskeie belanghebbendes in die mynsektor geïmplementeer en gebruik word om by te dra tot die suksesvolle en volhoubare benutting van vroue in die mynsektor.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	ii
SUMMARY	iii
OPSOMMING	v
LIST OF TABLES	xv
LIST OF FIGURES	xxi
<u>CHAPTER ONE</u>	
INTRODUCTION, PROBLEM STATEMENT AND RESEARCH METHODOLOGY	1
1.1 ORIENTATION.....	1
1.2 PROBLEM STATEMENT	4
1.3 RESEARCH QUESTIONS.....	5
1.4 RESEARCH OBJECTIVES	6
1.4.1 General objective	6
1.4.2 Specific objectives.....	6
1.5 CENTRAL THEORETICAL STATEMENT	7
1.6 RESEARCH METHODOLOGY.....	8
1.6.1 Research procedures	9
1.6.2 Research setting	12
1.6.3 Sampling	12
1.6.4 Entrée and establishing the researcher's role	12

1.6.5	Data collection	13
1.6.6	Data analysis	16
1.6.7	Strategies employed to ensure the validity and reliability of data.....	20
1.6.8	Ethical considerations	21
1.6.9	Reporting	22
1.7	LIMITATIONS AND OBSTACLES OF THE STUDY	22
1.8	CONTRIBUTION OF THE STUDY	23
1.9	PREVIEW OF CHAPTERS	23
1.10	CHAPTER SUMMARY	24
<u>CHAPTER TWO</u>	GENDER AND GENDER INEQUALITY: A THEORETICAL FRAMEWORK.....	25
2.1	INTRODUCTION	25
2.2	UNDERSTANDING GENDER.....	26
2.2.1	‘Sex’ and ‘gender’	26
2.2.2	Gender difference	27
2.3	GENDER INEQUALITY – A FEMINISTIC APPROACH	32
2.3.1	Feminist theory	32
2.3.2	Conclusion	50
2.4	WOMEN AND WORK	51
2.4.1	Theoretical perspectives on gender inequality in the workplace.....	51
2.4.2	The sexual division of labour	59

2.4.3	Gender issues at work.....	67
2.5	GENDER INEQUALITY: A SOUTH AFRICAN PERSPECTIVE	87
2.5.1	The women's movement in South Africa.....	87
2.5.2	Initiatives promoting gender equality, equity and the empowerment of women	90
2.5.3	Women and work in South Africa.....	98
2.6	CONCLUSION	102
<u>CHAPTER THREE</u>	TRANSFORMATION AND EQUALITY IN THE LABOUR FORCE: THE SOUTH AFRICAN STATUTORY AND REGULATORY FRAMEWORK.....	105
3.1	INTRODUCTION.....	105
3.2	GOVERNMENT LEGISLATION AND REGULATORY FRAMEWORKS	106
3.2.1	The Constitution of the Republic of South Africa (108 of 1996)	108
3.2.2	Labour legislation	110
3.2.3	Mining legislation.....	121
3.3	CHAPTER SUMMARY	147
<u>CHAPTER FOUR</u>	WOMEN IN MINING: GLOBAL AND NATIONAL TRENDS AND PERSPECTIVES.....	149
4.1	INTRODUCTION.....	149
4.2	GLOBAL TRENDS AND PERSPECTIVES REGARDING WOMEN IN MINING.....	150
4.2.1	North America	151

4.2.2	Australia.....	157
4.2.3	China	161
4.2.4	Papua New Guinea.....	164
4.2.5	Africa	168
4.2.6	Conclusion	172
4.3	NATIONAL TRENDS AND PERSPECTIVES REGARDING WOMEN IN MINING	173
4.4	CHALLENGES AND IMPLICATIONS REGARDING THE DEPLOYMENT OF WOMEN IN THE CORE BUSINESS OF MINING	179
4.4.1	Social and cultural issues.....	180
4.4.2	Infrastructure issues.....	181
4.4.3	Personal protective equipment issues.....	183
4.4.4	Physiological issues.....	185
4.4.5	Health and safety issues	193
4.4.6	Management issues.....	198
4.4.7	Conclusion	208
4.5	CHAPTER SUMMARY.....	208
<u>CHAPTER FIVE</u>	EMPIRICAL FINDINGS: BIOGRAPHICAL INFORMATION, COMPANY PROCEDURES AND POLICIES AND WORKPLACE OPPORTUNITIES	210
5.1	INTRODUCTION	210
5.2	BIOGRAPHICAL INFORMATION	211

5.2.1	Qualitative data	212
5.2.2	Quantitative data	216
5.3	COMPANY PROCEDURES AND POLICIES.....	238
5.3.1	Employee benefits.....	239
5.3.2	Company policies	243
5.3.3	Conclusion	270
5.4	WORKPLACE OPPORTUNITIES.....	270
5.4.1	Descriptive statistics and frequencies.....	271
5.4.2	Factor analysis	277
5.4.3	Main concerns regarding workplace opportunities	280
5.4.4	Management response to qualitative inquiry.....	286
5.4.5	Conclusion	287
5.5	CHAPTER SUMMARY	288
<u>CHAPTER SIX</u>	EMPIRICAL FINDINGS: INFRASTRUCTURE FACILITIES, PHYSICAL ABILITY AND HEALTH AND SAFETY IN THE WORKPLACE	290
6.1	INTRODUCTION.....	290
6.2	INFRASTRUCTURE FACILITIES.....	290
6.2.1	Descriptive statistics and frequencies.....	291
6.2.2	Factor analysis	296
6.2.3	Main concerns regarding infrastructure facilities	299
6.2.4	Conclusion	309

6.3	PHYSICAL ABILITY	310
6.3.1	Descriptive statistics and frequencies	311
6.3.2	Factor analysis.....	325
6.3.3	Perceptions and major concerns regarding the physical ability and capability of women employed in core mining positions.....	330
6.3.4	Perceptions of treatment of women in the workplace	340
6.3.5	Conclusion	344
6.4	HEALTH AND SAFETY IN THE WORKPLACE	345
6.4.1	Descriptive statistics and frequencies	346
6.4.2	Factor analysis.....	354
6.4.3	Health and safety concerns regarding women working in core mining positions.....	359
6.4.4	Conclusion	365
6.5	CHAPTER SUMMARY	366
<u>CHAPTER SEVEN</u>	EMPIRICAL FINDINGS: WORKPLACE RELATIONS AND GENERAL ISSUES REGARDING DEPLOYMENT OF WOMEN IN MINING	368
7.1	INTRODUCTION	368
7.2	WORKPLACE RELATIONS	368
7.2.1	Descriptive statistics and frequencies	369
7.2.2	Factor analysis.....	382
7.2.3	Perceptions and major concerns regarding workplace relations	389

7.2.4	Conclusion	409
7.3	GENERAL ISSUES REGARDING THE DEPLOYMENT OF WOMEN IN CORE MINING POSITIONS	410
7.3.1	Personal issues of women employed in core mining positions.....	410
7.3.2	Main problems encountered by male employees with the deployment of women in core mining positions.....	421
7.3.3	Key challenges for management of mining companies	427
7.3.4	Main obstacles that inhibit the participation of women in the mining sector	439
7.3.5	Benefits to having women at the mine	440
7.3.6	Conclusion	443
7.4	CHAPTER SUMMARY	443
<u>CHAPTER EIGHT</u>	CORE SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	446
8.1	INTRODUCTION.....	446
8.2	RESEARCH PROBLEM, OBJECTIVES, CONCLUSIONS AND RECOMMENDATIONS.....	446
8.2.1	Research methodology.....	447
8.2.2	Research Objective 1	448
8.2.3	Research Objective 2	450
8.2.4	Research Objective 3	451
8.2.5	Research Objective 4 and 5	452
8.2.6	Research Objective 6	467

8.3	AREAS FOR FUTURE RESEARCH	471
8.4	SUMMARY OF RESEARCH STUDY	471
<u>BIBLIOGRAPHY</u>	473
<u>Annexure A</u>	Questionnaire to women working in core mining activities of the mining company.....	496
<u>Annexure B</u>	Questionnaire to male employees of the mining company	517
<u>Annexure C</u>	Questionnaire to management of the mining company	537
<u>Annexure D</u>	Interview schedule: women working in core mining activities	557
<u>Annexure E</u>	Interview schedule: male employees working in core mining activities.....	563
<u>Annexure F</u>	Interview schedule: management of the mining company	567
<u>Annexure G</u>	Letter to the mining companies	573
<u>Annexure H</u>	Letter from Dr SM Ellis (Statistical consultation services)	576
<u>Annexure I</u>	Letter from Ms L Bedeker (Language and referencing editor)	578

LIST OF TABLES

<u>CHAPTER TWO</u>	GENDER AND GENDER INEQUALITY: A THEORETICAL FRAMEWORK	25
Table 2.1:	Classification of women's work lifestyle preferences in the 21st century	55
Table 2.2:	Profile of the national EAP by race and gender	99
Table 2.3:	Industry/Sector workforce profile	102
<u>CHAPTER THREE</u>	TRANSFORMATION AND EQUALITY IN THE LABOUR FORCE: THE SOUTH AFRICAN STATUTORY AND REGULATORY FRAMEWORK.....	105
Table 3.1:	Scorecard requirements for HDSA representation	143
Table 3.2:	Scorecard requirements for procurement from BEE entities.....	145
<u>CHAPTER FOUR</u>	WOMEN IN MINING: GLOBAL AND NATIONAL TRENDS AND PERSPECTIVES.....	149
Table 4.1:	Strategies contributing to the advancement of women in their careers	155
Table 4.2:	Strategies to attract female students and graduates to the mining and exploration sector.....	156
Table 4.3:	Women employed according to subsector: 2000–2009	176
Table 4.4:	Workforce profile population distribution of the mining and quarrying sector, 2011–2012	177
<u>CHAPTER FIVE</u>	EMPIRICAL FINDINGS: BIOGRAPHICAL INFORMATION, COMPANY PROCEDURES AND POLICIES AND WORKPLACE OPPORTUNITIES	210
Table 5.1 (a):	Individual interviews and focus group discussions conducted at the copper mine	212

Table 5.1 (b):	Individual interviews and focus group discussions conducted at the phosphate mine	214
Table 5.1 (c):	Focus group discussions conducted at the platinum mine.....	214
Table 5.2:	Distribution and response count per mine	217
Table 5.3 (a):	Job specification of research participants – copper mine	230
Table 5.3 (b):	Job specification of research participants – phosphate mine	232
Table 5.3 (c):	Job specification of research participants – platinum mine.....	233
Table 5.4:	Duration of shifts by mine.....	236
Table 5.5:	Frequency table of employee benefits for which staff qualifies	241
Table 5.6:	Participants' awareness of company policies in place	246
Table 5.7 (a):	Participants' perceptions regarding sufficient knowledge of mining companies' policies – copper mine	249
Table 5.7 (b):	Participants' perceptions regarding sufficient knowledge of mining companies' policies – phosphate mine.....	250
Table 5.7 (c):	Participants' perceptions regarding sufficient knowledge of mining companies' policies – platinum mine.....	251
Table 5.8 (a):	KMO and Bartlett's test of sphericity	252
Table 5.8 (b):	Pattern matrix ^a	253
Table 5.8 (c):	Factor correlation matrix	255
Table 5.8 (d):	Comparison of the three target groups of the different mines regarding sufficient knowledge of company policies	256
Table 5.9 (a):	Participants' perceptions regarding the sufficiency of mining companies' policies – copper mine	259

Table 5.9 (b):	Participants' perceptions regarding the sufficiency of mining companies' policies – phosphate mine	260
Table 5.9 (c):	Participants' perceptions regarding the sufficiency of mining companies' policies – platinum mine	261
Table 5.10 (a):	KMO and Bartlett's test of sphericity	262
Table 5.10 (b):	Pattern matrix ^a	262
Table 5.10 (c):	Factor correlation matrix	264
Table 5.10 (d):	Comparison of the three target groups of the different mines regarding the sufficiency of company policies	265
Table 5.11 (a):	Participants' perceptions regarding workplace opportunities for women working in core mining activities – copper mine	274
Table 5.11 (b):	Participants' perceptions regarding workplace opportunities for women working in core mining activities – phosphate mine	275
Table 5.11 (c):	Participants' perceptions regarding workplace opportunities for women working in core mining activities – platinum mine.....	276
Table 5.12 (a):	KMO and Bartlett's test of sphericity	277
Table 5.12 (b):	Pattern matrix ^a	277
Table 5.12 (c):	Comparison of the three target groups of the different mines regarding Workplace opportunities.....	279
<u>CHAPTER SIX</u>	EMPIRICAL FINDINGS: INFRASTRUCTURE FACILITIES, PHYSICAL ABILITY AND HEALTH AND SAFETY IN THE WORKPLACE	290
Table 6.1 (a):	Participants' perceptions regarding infrastructure facilities provided to women working in core mining activities – copper mine.....	293

Table 6.1 (b):	Participants' perceptions regarding infrastructure facilities provided to women working in core mining activities – phosphate mine	294
Table 6.1 (c):	Participants' perceptions regarding infrastructure facilities provided to women working in core mining activities – platinum mine	295
Table 6.2 (a):	KMO and Bartlett's test of sphericity	296
Table 6.2 (b):	Pattern matrix ^a	296
Table 6.2 (c):	Comparison of the three target groups of the different mines regarding Infrastructure facilities	298
Table 6.3 (a):	Participants' perceptions regarding the physical ability of women working in core mining activities – copper mine	314
Table 6.3 (b):	Participants' perceptions regarding the physical ability of women working in core mining activities – phosphate mine	315
Table 6.3 (c):	Participants' perceptions regarding the physical ability of women working in core mining activities – platinum mine	316
Table 6.4 (a):	Participants' perceptions regarding women's confidence in performing core mining activities – views of male co-workers	321
Table 6.4 (b):	Participants' perceptions regarding women's confidence in performing core mining activities – views of management	322
Table 6.5:	Equipment, tools and work units banned from use by female employees	324
Table 6.6 (a):	KMO and Bartlett's test of sphericity	325
Table 6.6 (b):	Pattern matrix ^a	326
Table 6.6 (c):	Factor correlation matrix	328

Table 6.6 (d):	Comparison of the three target groups of the different mines regarding Physical ability.....	329
Table 6.7 (a):	Participants' perceptions regarding health and safety in the workplace – copper mine	348
Table 6.7 (b):	Participants' perceptions regarding health and safety in the workplace – phosphate mine	350
Table 6.7 (c):	Participants' perceptions regarding health and safety in the workplace – platinum mine	352
Table 6.8 (a):	KMO and Bartlett's test of sphericity	354
Table 6.8 (b):	Pattern matrix ^a	354
Table 6.8 (c):	Factor correlation matrix	357
Table 6.8 (d):	Comparison of the three target groups of the different mines regarding Health and safety in the workplace	358
 <u>CHAPTER SEVEN</u>		
	EMPIRICAL FINDINGS: WORKPLACE RELATIONS AND GENERAL ISSUES REGARDING DEPLOYMENT OF WOMEN IN MINING	368
Table 7.1:	Participants' perceptions regarding the existence of forums for women.....	373
Table 7.2 (a):	Participants' perceptions regarding workplace relations – copper mine.....	374
Table 7.2 (b):	Participants' perceptions regarding workplace relations – phosphate mine.....	377
Table 7.2 (c):	Participants' perceptions regarding workplace relations – platinum mine	380
Table 7.3 (a):	KMO and Bartlett's test of sphericity	382
Table 7.3 (b):	Pattern matrix ^a	382
Table 7.3 (c):	Factor correlation matrix	386

Table 7.3 (d):	Comparison of the three target groups of the different mines regarding Workplace relations	387
Table 7.4:	Main problems encountered by women in the mining environment	419

LIST OF FIGURES

<u>CHAPTER TWO</u>	GENDER AND GENDER INEQUALITY: A THEORETICAL FRAMEWORK.....	25
Figure 2.1:	Women and men work in different sectors.....	61
Figure 2.2:	Hours per day spent on housework and childcare	68
Figure 2.3:	Explaining persistent segregation and earnings gaps	75
Figure 2.4:	Workforce profile percentage population distribution at the top management level by race and gender	99
Figure 2.5:	Workforce profile percentage population distribution at senior management level by race and gender	100
Figure 2.6:	Workforce profile percentage population distribution at professionally qualified level by race and gender.....	100
Figure 2.7:	Workforce profile percentage population distribution at skilled level by race and gender.....	101
<u>CHAPTER THREE</u>	TRANSFORMATION AND EQUALITY IN THE LABOUR FORCE: THE SOUTH AFRICAN STATUTORY AND REGULATORY FRAMEWORK.....	105
Figure 3.1:	Drivers for transformation of the South African mining sector	107
<u>CHAPTER FOUR</u>	WOMEN IN MINING: GLOBAL AND NATIONAL TRENDS AND PERSPECTIVES.....	149
Figure 4.1:	Risk-assessment process for pregnancy and/or breastfeeding employees	192
<u>CHAPTER FIVE</u>	EMPIRICAL FINDINGS: BIOGRAPHICAL INFORMATION, COMPANY PROCEDURES AND POLICIES AND WORKPLACE OPPORTUNITIES.....	210
Figure 5.1:	Participant breakdown in terms of mine commodities (N=156)	216

Figure 5.2:	Participant breakdown in terms of the different target groups per mining commodity	218
Figure 5.3:	Gender distribution of research participants	219
Figure 5.4 (a):	Age distribution of research participants – copper mine	220
Figure 5.4 (b):	Age distribution of research participants – phosphate mine	220
Figure 5.4 (c):	Age distribution of research participants – platinum mine.....	221
Figure 5.5 (a):	Distribution of research participants by race – copper mine	222
Figure 5.5 (b):	Distribution of research participants by race – phosphate mine	222
Figure 5.5 (c):	Distribution of research participants by race – platinum mine	223
Figure 5.6 (a):	Marital status of research participants – copper mine.....	224
Figure 5.6 (b):	Marital status of research participants – phosphate mine.....	224
Figure 5.6 (c):	Marital status of research participants – platinum mine	225
Figure 5.7 (a):	Child status of research participants – copper mine	225
Figure 5.7 (b):	Child status of research participants – phosphate mine	226
Figure 5.7 (c):	Child status of research participants – platinum mine.....	226
Figure 5.8 (a):	Home language spoken by research participants – copper mine	227
Figure 5.8 (b):	Home language spoken by research participants – phosphate mine	227
Figure 5.8 (c):	Home language spoken by research participants – platinum mine	228
Figure 5.9 (a):	Qualification distribution of research participants – copper mine	229

Figure 5.9 (b):	Qualification distribution of research participants – phosphate mine.....	229
Figure 5.9 (c):	Qualification distribution of research participants – platinum mine.....	230
Figure 5.10:	Occupational strata of management participants	234
Figure 5.11 (a):	Distribution of research participants according to employment underground or surface – copper mine.....	234
Figure 5.11 (b):	Distribution of research participants according to employment underground or surface – phosphate mine	235
Figure 5.11 (c):	Distribution of research participants according to employment underground or surface – platinum mine	235
Figure 5.12:	Women that are required to work shifts	236
Figure 5.13 (a):	Period employed in the mining environment – copper mine.....	237
Figure 5.13 (b):	Period employed in the mining environment – phosphate mine.....	238
Figure 5.13 (c):	Period employed in the mining environment – platinum mine	238
 <u>CHAPTER SIX</u>		
	EMPIRICAL FINDINGS: INFRASTRUCTURE FACILITIES, PHYSICAL ABILITY AND HEALTH AND SAFETY IN THE WORKPLACE	290
Figure 6.1:	Work activities of female research participants	318
Figure 6.2:	Female participants' perceptions regarding their confidence to perform work activities	319
Figure 6.3 (a):	Copper mine.....	324
Figure 6.4 (a):	Copper mine.....	324
Figure 6.3 (b):	Phosphate mine	324
Figure 6.4 (b):	Phosphate mine	324
Figure 6.3 (c):	Platinum mine.....	325

Figure 6.4 (c):	Platinum mine	325
Figure 6.5:	Number of male participants working with women in their sections.....	333
<u>CHAPTER SEVEN</u>	EMPIRICAL FINDINGS: WORKPLACE RELATIONS AND GENERAL ISSUES REGARDING DEPLOYMENT OF WOMEN IN MINING	368
Figure 7.1:	Have you ever been approached for sex in the workplace in exchange for favours?	371
Figure 7.2:	Have you ever been sexually harassed in the workplace?	371
Figure 7.3:	Viewpoints of women working in core mining activities on the impact of their work on their family life.....	414
Figure 7.4:	Viewpoints of male research participants on specific problems with having women at the mine.....	422
Figure 7.5:	Viewpoints of management on specific problems with having women at the mine.	431
Figure 7.6:	Viewpoints of male research participants on benefits to having women at the mine	440
Figure 7.7:	Viewpoints of management on benefits to having women at the mine	441
<u>CHAPTER EIGHT</u>	CORE SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	446
Figure 8.1:	A conceptual framework for gender issues in the mining sector	470