

Declaration

I declare that this research project is my own, unaided work. It is submitted for the degree in Masters of Organisational Psychology at the University of the Witwatersrand. It has not been submitted for any other degree or examination at this or any other university.

Musa Maluleke

January 2013

Acknowledgements

I would firstly like to thank my saviour Jesus Christ for the opportunity and his guidance throughout my studies, without Him none of this would be possible.

I would also like to thank:

- Prof Andrew Thatcher for his supervision throughout my post graduate studies. The patience, feedback and advice is highly appreciated. Thank you.
- My parents and siblings for their patience and support that they have given me throughout my studies, I can never thank you enough.
- Lastly a special thank you to Kgololosego Sebolela, Mautle Mojapelo and all friends for their encouragement and love.

Abstract

This study was concerned with investigating the perceptions of the conditions of the physical work environment on the psychological and physical wellbeing of employees at Nedbank. This was an important study to carry out due to the fact that people are increasingly spending time indoors more especially in the offices in which they work. Thus it becomes important to investigate the effects that the physical work environment in which people work has on their psychological and physical wellbeing. The buildings investigated in this study were green buildings, as they were concerned with limiting the negative impact of the physical work environment on the wellbeing of employees and the environment. The sample utilised in this study consisted of three hundred and forty nine (n=349) participants of Nedbank from two recently refurbished buildings known as Phase II and Ridgeside, the sampling technique utilised in order to obtain this sample was purposive sampling. The statistical analysis which were utilised was the multiple regression analysis which was used in order to find out which building conditions influenced psychological and physical wellbeing, whilst a partial correlation analyses was performed to investigate the moderating effect of time spent in building. From these analyses it was found that perceptions of the conditions of the physical work environment had a greater influence on the physical wellbeing of employees. Perceptions of the conditions of the physical work environment were found to have a lesser influence on the psychological wellbeing of employees at Nedbank. Results also revealed that time spent in building was not a moderator of the relationships between the perceptions of the conditions of the physical work environment with psychological and physical wellbeing respectively.

Table of Contents	Page
Declaration	i
Acknowledgements	ii
Abstract	iii
Table of contents	iv
List of tables	vi
 Chapter 1 Introduction	 1
Rationale	1
Aim of study	3
Objectives	3
 Chapter 2 Literature review	 4
Introduction	4
Sustainable development and green buildings	4
The physical work environment	8
Indoor Environmental Quality	8
Overall Comfort	10
Acoustic Concerns	11
Lighting	12
Temperature	14
Air movement	14
Air quality and ventilation	15
Psychological wellbeing	17
Physical wellbeing	21
Length of time spent in building	24
Research questions	25
 Chapter 3 Methodology	 26
Introduction	26
Research Design	26
Sampling Technique	27
Sample	28
Procedure	31

Measures	33
Demographics	33
Psychological wellbeing	33
Perceptions of the physical work environment	34
Physical wellbeing	34
Time spent in building	35
Data analysis	35
Ethical Considerations	36
Chapter 4 Results	38
Introduction	38
Results of the independent sample t-test	38
Results of the correlation matrix	43
Results of the regression analyses- perceptions of the physical work environment onto the two dependent variables	45
Results of the partial correlation	48
Secondary analyses	51
Chapter 5 Discussion	58
Introduction	58
Discussion on psychological wellbeing	58
Discussion on physical wellbeing	63
Discussion on time spent in building	67
Discussion of secondary analyses	68
Theoretical and practical implications	70
Limitations	71
Directions for future research	73
Conclusion	74
References	76
Appendices	83

List of tables

Table 1 Demographics of the sample	29
Table 2 Demographics of the Ridgeside sample	30
Table 3 Demographics of the Phase II sample	31
Table 4 Homogeneity variance	39
Table 5 Independent sample t-test	40
Table 6 Independent sample t-test investigating the differences between the conditions of the physical work environment	41
Table 7 Correlation matrix for physical work environment conditions on psychological and physical wellbeing	43
Table 8 Regression model for total scores	45
Table 9 Summary of regression analysis of the different physical attributes of the workplace onto psychological wellbeing	46
Table 10 Summary of regression analysis of the different physical attributes of the workplace onto physical wellbeing	47
Table 11 Partial correlation matrix psychological and physical wellbeing with time partialled out	49
Table 12 Regression model for total scores of Phase II building	51
Table 13 Regression model for total scores of Ridgeside building	51
Table 14 Summary of regression analyses of the different physical attributes of the workplace onto psychological and physical wellbeing in Phase II building	52
Table 15 Summary of regression analyses of the different physical attributes of the workplace onto psychological and physical wellbeing in Ridgeside building	53
Table 16 Partial correlation matrix- psychological and physical wellbeing with time partialled out in Phase II building	55
Table 17 Partial correlation matrix- psychological and physical wellbeing with time partialled out in Ridgeside building	56

