

https://dspace.org/

The physical work environment's impact on wellbeing : the moderating role of time spent in building.

Maluleke, Musa

2013-07-23
http://hdl.handle.net/10539/12876

Downloaded from a DSpace repository. https://dspace.org/

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 partialed 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 wit time partialed out in Phase II building 55
Table 17 Partial correlation matrix- psychological and physical wellbeing with time partialed out in Ridgeside building 56