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ANALYZING THE PERSISTENT NATURE OF QUALITY ISSUES IN LOW-COST HOUSING PROJECTS

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ABSTRACT

The primary objective of this research was to investigate the progressiveness of housing policies and strategies in addressing persistent quality defect challenges experienced in low cost housing projects delivered by the Department of Human Settlements (DHS). As low cost housing projects continue to dominate the South African housing market for low to middle income households with millions spent on rectifications, it was imperative to question why achieving defect-free housing project is such a challenge. Through employing mixed research methods, the researcher found that there has been a noticeable decrease in the frequency of defects due to the introduction of the NHBRC project and home enrolment process and the warranty scheme. However, common cases of non-enrolment and late enrolments of housing projects results in non-compliant houses, which reinforces the persistence of the defective stock. Moreover, a large historical defective stock also remains, which forms the bulk of the defective stock that was accumulated prior to the introduction of the NHBRC warranty scheme and has proved difficult to eradicate due to budgetary constraints. In conclusion, the researcher argues that the delayed rectification of the defective stock and the persistence of quality management challenges continues to threaten the sustainability and viability of the entire Human Settlements programme. It is also clear that the regulatory role of the NHBRC in ensuring and enforcing quality compliance is being hampered by inefficient quality management processes caused by organizational and project management challenges of the DHS, which can be addressed by employing wholesome quality management systems such as TQM.

Keywords: Quality management, Low cost housing, Department of Human Settlements, NHBRC, Quality defects

LIST OF CORRECTIONS

CORRECTIONS TO BE ADDRESSED	RESPONSES
GENERAL	
Cover Page	Date changed on cover page
Comment 1 – Abstract should be just one paragraph, there is no need to split in into two. Also provide five key words at the end of Abstract.	Abstract has been consolidated into 1 paragraph and key words added, see page ii
Comment 2 – Abstract should clearly state the following (a) the thrust/aim/purpose of the research, (b) scope and methodology employed stated very briefly, (c) findings from the study, (d) contribution to knowledge (if any), (e) how the study has addressed the gap in knowledge, (f) conclusion. (d) and (e) is not really expected for MSC report	Abstract amended to factor points raised, see page ii
Comment 3 – Please include the points raised in point 2 to increase the robustness of your abstract.	Points raised in comment 2 addressed in abstract, see page ii
Contents page updated	See pages iv-v
Add/provide the following - CAPA (See comment 8, What is CAPA?)	CAPA abbreviation explained on page viii. Please also definitions in page ix
Comment 4: Provide a section to address definition of terms before the introduction. Terms such as project life cycle, quality management.	Definitions page added, see page viii
Title of tables always on top	Title tables moved to top of table for all tables in the document
CHAPTER 1: INTRODUCTION	
Comment 5: Merge these two as one paragraph	Paragraphs merged, see paragraph 1 on page 1

Comment 6: Please provide references to support this statement “well documented” where?	References added, see paragraph 1 on page 1
Comment 7: Add references to support statement	References added, see paragraph 1 on page 1
Comment 8: What is CAPA?	See abbreviations and definitions on page viiii and ix
Comment 9: Provide references here to affirm your position	Referenced (Wahyuni, 2012), see page 4
Comment 10: Support your writing with seminal/key authors and books e.g. Geetz, Foucault, Latour, Bjiker, etc	Comment noted and addressed, see paragraph 3 on page 4
Comment 11: provide references for criterion sampling	Referenced (Patton and Cochran, 2002)
Comment 12: How were they selected? What was the selection process?	Selection process explained, see paragraph 1 on page 5
Missing word	‘as’ added to research aims on page 5
Comment 13: Note the addition	Addition noted and added on page 5
Comment 14: what about books from key authors?	Comment addressed, see page 7 (bullet point 1) “books from key authors (such as Creswell, Karna, Kothari, Thomas and Saunders)”
CHAPTER 2: LITERATURE REVIEW ON QUALITY	
Referencing	Page number added to paragraph 1 (page 10)
Comment 15: Title of tables is always at the top and source below the table	Title tables moved to top of table for all tables in the document
Comment 16: Better to state the point in a prose format.	Bullet point turned to prose format, see paragraph 2 of page 12
Comment 17: it is more appropriate to reduce the use of bulleting to the barest minimum. Always write in flowing prose. Also Reference.	Bullet point turned to prose format, see page 13

Comment 18: Give/make references to those 'number of studies'	Sentence removed.
Comment 19: Not proper English. Do you mean the link?	Sentence revised, see bullet point 2 on page 15
Comment 20: Avoid the use of etc. In a research work you need to be as precise as much as possible. Also reference.	Mallawaarachchi and Senaratne, (2015: 87) and Rarani (2013: 15-16). Etc removed. See 2nd paragraph on page 15.
Comment 21: What page? When you quote a statement from a book/journal. Always state the page number.	Page number added (Project Management Institute cited in Khoza and Kabir, 2014: 33)
Comment 22: One sentence cannot make a paragraph. Join with preceding paragraph.	Paragraphs merged, see paragraph 2 on page 17
Referencing	Bullet points referenced – (Rarani) 2013, see page 17
CHAPTER 3: LOW COST HOUSING LANDSCAPE	
Comment 23: See page 89, absent from reference list	Reference corrected. Correct reference is CAHF, 2010.
Comment 24: Make legible by making the image bigger	Image size increased, see page 26
Comment 25: Resize the images to properly align	Image resized for proper alignment, see page 36
Comment 26: Resize to a more modest font	Image size increased, see page 39
Reference	Reference: CIDB (2014), see paragraph 2 on page 40
Comment 27: Turn this to flowing prose	Bullet points turned to prose format, see last paragraph on page 42
Reference: what page number?	Mkhonto (2014: 2), see page 41
Join first 3 episodes of 3.3.4	Paragraphs merged, see paragraph 2 on page 43
Comment 28: interesting…this should be further developed to argue for quality control and assurance as part of your recommendation	Comment noted. See recommendations in Chapter 6

Comment 29: How do you enhance the quality of drawings? This can also be developed further to argue for a new approach as part of the recommendations.	Noted. See recommendations in Chapter 6 – clearly defined scope of work, design specifications focusing on quality.
Turn to prose format	Bullet points turned to flowing prose, see paragraph 2 on page 46
CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY	
Comment 30: Kothari is not the only authority on research, you need to consult many key authors in your search for knowledge	There are other authors that have been used in this chapter e.g. Creswell, Saunders, Thomas, etc
Comment 31: What do you mean? Did you mean in a study?	Yes. Comment addressed, see last line on page 48
Reference	Sentence referenced: (Kothari, 2004: 35-36), see last sentence on page 49
Comment 32: Who are these others? Please provide references to buttress your points	Sentence removed due to its ambiguity.
Comment 33: epistemology and ontology are not the same thing	Comment noted
Comment 34: Ontology has to do with the nature of knowledge	Comment noted and included on page 50
Reference	Sentences referenced: Creswell (2009), see paragraph 2 on page 50
Comment 35: You need to justify/elaborate on the choice of interpretivist approach, such as the need to understand the context of the study group, etc.	see added narrative in the paragraph on pages 51-52
Merge first 3 paragraphs as one	Comment addressed. See paragraph 2 on page 53
Comment 36: Thomas (2010) is not an authority on qualitative design. Why base your argument on Thomas alone	Thomas is not the only author that has been used here.

Reference	Bullet points referenced above: Creswell (2009), see last sentence on page 53.
Comment 37: The question is what approach have you used amongst the examples listed.	The section on strategies of inquiry has been revised to address this comment. See pages 52-54.
Comment 38: it is not sufficient to just provide a list of all the theories in your approach. You need to domesticate an approach as part of your study that drives the investigation.	The section on strategies of inquiry has been revised to address this comment. See pages 52-54.
What is criterion sampling	Criterion sampling defined on page 58, see paragraph 2.
Reference	Sentence referenced: Patton and Cochran, 2002 See paragraph 2 on page 58
Comment 39: Tone down the colour	Colour has been toned down and image enlarged, see pahe 58
Comment 40: You are to report on what has been done/carried out. Watch out for the use of 'will'. Hence, use a reported tenses/format.	Comment noted and addressed to show past tenses, see first bullet point on page 59
Comment 41: "were analyzed". Tell us what you have done.	Comment addressed. See last sentence on page 59 written in past tense
Comment 42: Your research methodology section should not just be a literature review exercise. It should state in addition to the reviewed literature, exactly the steps/procedures you have undertaken that has foster the exploratory study of the phenomenon under investigation.	Chapter 4 has been revised to detail the research process undertaken.
CHAPTER 5: ANALYSIS OF RESEARCH FINDINGS	
Comment 43: How many questionnaires were administered, how many were filled and returned. How did you select the DHS inspectors? What criterion did you use in selecting the inspectors? Also provide	Comment addressed. See page 61 (5.2. presentation of findings). No pictures added as there were no site visits conducted.

pictures of some of these defects from your field work.	
Comment 44: Colour making the information unreadable	This is the original format of the image. To make it legible, the image has been enlarged. See page 64
Make image legible, readable and clear by increasing the size	Image size enlarged, see page 68.
Prose format	Bullet points turned to prose format, see last paragraph on page 69 and first paragraph of page 70.
Comment 45: provide pictures and some of these defects to support your argument	Pictures of the defects shown in Chapter 3. No site visits were conducted in this study.
Comment 46: Any pictures of these defective houses?	There are no recent pictures available. No site visits were conducted. However, images from recent publications reinforcing the continued existence of quality defects can be found in Chapter 3.
Reference	Paragraph referenced: DHS (2015), see paragraph 2 on page 74
Reference	Sentence referenced: NHBRC (2017b), see page 76
Comment 47: Can you please provide this as part of the appendices	See narrative on pages 77-79 explaining BQIH and its application. Also see annexure 4 showing the BQIH development process
Comment 48: You need to elaborate on the role of corruption in housing defects. Is it at government level or individual household level or both?	See first bullet point on page 82
Comment 49: Is it a political decision to abandon?	It is unclear at this point whether this was a political or purely a departmental decision but it did come from the national DHS. This question, in particular the effects of political interference in the programme, was highlighted as an area for further research (see page 89).

Reference	Sentence referenced: NHBRC (2015), see second sentence on paragraph 2 of page 84
Comment 50: This should be highlighted in your recommendations section and conclusion	Comment addressed, see pages 86-87
Comment 51: How do we empower the municipal and provincial departments?	Addressed in the conclusion and recommendations, see pages 88-87
Comment 52: My suggestion – provision of robust legal framework, education/enlightenment of official, CPD – continue professional development and exposure to international standards	Addressed in the conclusion and recommendations, see pages 88-87
What is IBTs?	See definitions on page ix and a discussion on IBTs in chapter 5.2.4.2
CHAPTER 6: RECOMMENDATIONS AND CONCLUSION	
Comment 53: what standards? Please refer to these standards for clarity.	National Building Regulations, see response on paragraph 2 on page 87
Comment 54: please provide extract of the standards in the appendix section	See appendix 5
Comment 55: See points raised on page 44 and 45, also 80 and 83…on expanding your recommendations and suggestions for designers and policy makers	See recommendations on pages 87-88
REFERENCES AND APPENDICES	
References	Full stops added to all references. Accessed dates included in references with URLs provided. See pages 90-98
Appendix 4	Appendix 4 (Development Process of BQIH) added, see page 107
Appendix 5	Appendix 5 (Extract from Home Building Manual, 2014) added, see page 108- 113