

Examiner: Dr Mike Otieno

Response to external examiners feedback

The external examiner's comments have provided valuable input into improving the researcher's research report. The examiner's comments have been incorporated into the final research report. A summary of the researcher's responses to the external examiner is presented in the table below.

The responses/corrections as listed below are reflected in **yellow highlighted text** on the amended report.

No.	Examiner's comments	Responses/corrections
CHAPTER 1		
3	Chapter 1: Introduction - The candidate has not clearly put forward a case for the need for the study. • What is missing in South African construction firms? • Why should they adopt (or continue adopting) the soft aspects of TQM? These are salient questions that need to be addressed by the researcher in this chapter. - Clearly state the scope and limitations of the study, even if they seem obvious.	This has now been addressed in the significance of the study in sub section 1.3 of Chapter 1. The limitations of the study are given in Chapter 6 under sub-section 6.2 in the initial report submission.
CHAPTER 2		
4	Chapter 2: Literature review - A review of TQM including soft aspects is presented. However, it is not critical enough; • Address some shortcomings of ISO-9001 and/or TQM approach • Come up with a working definition of TQM	This has been addressed under a new sub-section, 2.3 Shortcomings of TQM of Chapter 2. A working definition of TQM has been added in sub section 2.1 of Chapter 2.

	- pp. 7, para. 1: give more details on the framework proposed by Low and Teo. - pp. 10, para. 3: further discussion/ clarification on the different schools of thought with regards to the primary constructs and principles of TQM. - figure 2.1 is not cited in the text. Please check if the legend for this figure is correct. - pp. 18, para. 3: please clarify 'which are the 'old principles' of TQM?	Figure 2.1 was added to depict the routine to follow as a framework for implementing TQM. The level of differences by the various authors on the primary constructs of TQM is summarised in Table 2.1. This is now enumerated as Figure 2.2. this figure is reference in the paragraph before this figure. These are the principles that are listed in Table 2.1.
CHAPTER 3		
5	Chapter 3: Research design and methods - Even though only 15 respondents were obtained (out of a possible 38), what is the candidate's opinion on the validity of the sample size to represent the population? - Comment on not including non-ISO certified construction firms in the study.	The researcher quoted the following in the original research submission under sub-section 3.3 <i>"Guest et al., (2006) recommends that for a homogenous sample, a minimum of twelve (12) in-depth interviews should be sufficient."</i> This study comprised a sample of 15 and with reference to Guest et al. (2006), the sample of 15 was deemed to be adequate. It was set out that the study was to focus on ISO 9001 certified firms only. This was outlined in sub-section 2.4 As reported in Babatunde and Low (2015), 'ISO 9001's alignment with TQM, starting from the ISO 9001: 2000 version, justifies it as a stepping stone to TQM implementation. It is therefore based on the above research that ISO 9001 certified construction firms in South Africa was chosen as the sample for this study. As the researcher was of the opinion that ISO 9001 certified

	- Why was a threshold of 0.7 settled for Cronbach's alpha? The decision on this needs to be justified.	construction firms in Gauteng have commenced their TQM journey. This paragraph was inserted: <i>The most widely used measure of reliability of an instrument is Cronbach's alpha (α), of which is a test within the internal consistency method (Tavakol and Dennick, 2011). Alpha was developed by Lee Cronbach in 1951 to provide a measure of the internal consistency of a test or scale; it is expressed as a number between 0 and 1 (Tavakol and Dennick, 2011). The threshold for Cronbach's alpha is 0.7 but a measure of 0.8 or more is considered reliable and significant (as cited in Das et al., 2008). It was stated in Henson (2001) that as per Nunnally's second edition the exploratory standard for instrument development was 0.7. Further, Gliem & Gliem (2003) reported that "the closer Cronbach's alpha coefficient is to 1.0, the greater the internal consistency of the items in the scale." The authors further stated the following scale; "$\alpha > 0.9$ = excellent, $\alpha > 0.8$ = good, $\alpha > 0.7$ = acceptable, $\alpha > 0.6$ = questionable, $\alpha > 0.5$ = poor, and $\alpha < 0.5$ = unacceptable".</i>
CHAPTER 4		
6	Chapter 4: Results - No in-depth discussion of the results is carried out this chapter.	The previous Chapter 5 was now merged with Chapter 4. The in-depth discussion in the previous Chapter 5 is now reflecting in Chapter 4.
CHAPTER 5		
7	Chapter 5: Discussion of results - Why was an analysis not carried out to assess the interaction between the	This analysis was beyond the scope of this study due to the main purpose of

	different TQM constructs? This is important and should be carried out in a bid to try and understand the results and trends obtained. - It was mentioned that ANOVA was carried out. Where are the results of the ANOVA analyses? It seems it was not carried out.	the study being to explore the extent to which QMR's in ISO-9001 certified construction firms in South African are practicing the soft aspects of TQM at their respective firms. ANOVA analyses was not carried out. Instead, the researcher used descriptive statistics in Microsoft Excel for the statistical analysis for the TQM constructs. Sub section 3.5.1 was updated to remove any mention of ANOVA.
CHAPTER 6		
8	Chapter 6: Conclusions and recommendations - Is it the finding of this study that "<i>the soft aspects of TQM are applicable to South African construction firms</i>" or "<i>the soft aspects of TQM are applied in South African construction firms</i>"? This needs to be clarified. The latter would act as a validation of the application of the soft aspects which was the aim of the study – as reflected also in the title.	This was corrected to the latter as the 3rd finding under findings in sub-section 6.1: - <i>The five 'soft' aspects of TQM principles that were being practised by QMR's at their ISO 9001 certified construction firms were that of top management commitment, continuous improvement, education and training, supplier quality management and product/service quality. These are the soft aspects of TQM that are applied in South African ISO 9001 certified construction firms.</i>