

https://dspace.org/

Validating the 'soft' aspects of TQM for ISO-9001 certified construction firms in SOUTH AFRICA

Naicker, Sugendran

2018
https://hdl.handle.net/10539/26779

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

Examiner: unknown
Annotated copy of research report

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 cyan highlighted text on the amended report.

No.	Examiner's comments	Responses/corrections
9	*Comment F1* Replace with "award of"	This has been corrected accordingly.
10	*Comment F2* Replace with "Degree"	This has been corrected accordingly.
11	*Comment F3* Enclose with bracket	This has been corrected accordingly.
12	*Comment F4* Replace with "mine"	This has been corrected accordingly.
13	*Comment F5* Add "My"	This has been corrected accordingly.
14	*Comment F6* Replace with "gave"	This has been corrected accordingly.
15	*Comment F7* Replace with "the period of my postgraduate degree programme"	This has been corrected accordingly.
16	*Comment F8* Replace with "Finally, I appreciate my wife"	This has been corrected accordingly.
17	*Comment F9* Replace with "Unflinching support and words of encouragement throughout my master's degree programme"	This has been corrected accordingly.
18	*Comment F10* Replace with "Ahire et al., 1995"	This has been corrected accordingly.
19	*Comment F11* With a view to achieving what?	

		The significance of the study is now included as sub section 1.3 of Chapter 1.
20	*Comment F12* Sample of 15 is too small for this research	The researcher quoted the following in the original research submission under sub-section 3.3 "*Guest et al., (2006) recommends that for a homogenous sample, a minimum of twelve (12) in-depth interviews should be sufficient*."
21	*Comment F13* State the methods used under statistical analysis	This descriptive statistic methods were added to the executive summary.
22	*Comment F14* Insufficient conclusion and recommendations	The detailed recommendations were added to the executive summary.
23	*Comment F15* Change "3.2 Sampling" on the table of contents to 3.2 "Sampling Population"	This has been corrected accordingly.
24	*Comment F16* Align description of Tables 4.10 and 4.11 to the rest of the list	This has been corrected accordingly.
25	*Comment F17* Change the word "Qualifications" in the description of figure 4.2 to "qualifications"	This has been corrected accordingly.
	CHAPTER 1	
26	*Comment F18* Provide an introductory statement under Chapter 1	An introductory statement for Chapter 1 has now been provided accordingly.
27	*Comment F19* Replace with "Ahire et al., 1995"	This has been corrected accordingly.
28	*Comment F20* Replace with "Ahire et al., 1995"	This has been corrected accordingly.
29	*Comment F21* Replace bullet signs to numeric signs	This has been corrected accordingly.

30	*Comment F22* With a view to achieving what?	Abstract: *TQM is associated with an entire organisation or firm with the goal of improving the firm's performance and ultimate success. The co-operation of everyone in the entire firm is targeted at delivering the needs and expectations of its clients. These aspects could be the management concepts and principles of the firm (Psychogios & Priporas, 2007). These soft aspects of TQM could assist a South African construction firm in building a "good name" reputation in the industry. Such a reputation is penned on repeat work from satisfied clients, negotiated work, preferred bidder status with numerous clients, non-adversarial approach to managing work, completion within budget and time and the like (Harrington & Wiggin, 2012).*
31	*Comment F23* Replace bullet signs to numeric signs	This has been corrected accordingly.
32	*Comment F24* There is no correlation between objective 2 and research question 2. Please replace this objective 2 with this: "to study designated quality management representatives (QMR's) in construction firms in extent of practising soft aspects of TQM"	This has been corrected accordingly.
33	*Comment F25* Add summary of the research methodology	A summary has been added as sub-section 1.4
34	*Comment F26* Add 1.3.1 to the literature review	This was added in the introductory section of the literature review in Chapter 2.
35	*Comment F27* Change Conclusion to "Conclusion and Recommendation"	This has been corrected accordingly.

	CHAPTER 2	
36	*Comment F28* Replace with "Ahire et al., 1995"	This has been corrected accordingly.
37	*Comment F29* Replace with "Ahire et al., 1996"	This has been corrected accordingly.
38	*Comment F30* Replace with "Ahire et al., 1996"	This has been corrected accordingly.
39	*Comment F31* Change "various other" to "several"	This has been corrected accordingly.
40	*Comment F32* (Kaynak, 2003; Yunis et al., 2003) was not referenced in the references section.	This has now been included in the references section accordingly.
41	*Comment F33* Incorrect reference on Harrington and Hal (2012)	This has been corrected accordingly.
42	*Comment F34* Low and Teo (2004) was not referenced.	This has now been included in the references section accordingly.
43	*Comment F35* Replace the word "qualitative" with "quality"	This has been corrected accordingly.
44	*Comment F36* Incorrect reference on (Mazumder et al., 2014)	This has been corrected accordingly.
45	*Comment F37* The following paragraph is to be rephrased: *"Japanese companies are very successful because of the adoption and implementation of TQM principles expounded by quality gurus such as Deming, Juran, Taguchi and others' (Ahmad and Yusof, 2010)."*	This paragraph has been corrected to the following: *Ahmad and Yusuf (2010) researched that Japanese companies are very successful because of the adoption and implementation of TQM principles expounded by quality gurus such as Deming, Juran, Taguchi and others.*
46	*Comment F38* Add the following: Also, Zhang (1999)…	This has now been included accordingly.
47	Comment F39 Add the following: Similarly, Low and Teo (2004)…	This has now been included accordingly.
48	*Comment F40* Add the following: Furthermore, Bardoel and Sohal (1999)…	This has now been included accordingly.

	The above authors to be referenced.	This has now been included in the references section accordingly.
49	*Comment F41* Incorrect reference on Sinha et al., (2016)	This has been corrected accordingly.
50	*Comment F42* Add the following Finally, Thiagarajan et al., (2001)	This has now been included accordingly.
51	*Comment F43* ISO, 2015 not referenced	This has now been included in the references section accordingly.
52	*Comment F44* To et al., (2012) not referenced	This has now been included in the references section accordingly.
53	*Comment F45* Prajogo & Brown, 2006 not referenced	This has now been included in the references section accordingly.
54	*Comment F46* Saraph et al (1989), Flynn et all (1994) not referenced	This has now been included in the references section accordingly.
55	*Comment F47* What is the summary of this: *"We visualize TQM as constructing a house. First, we recommend putting top management commitment to TQM as the base or foundation. Without a strong foundation, the house will never stand. Once the foundation is in place, attention should be given to employee training and empowerment, quality measurement and benchmarking, process management, and customer involvement and satisfaction. These factors can be viewed as the four pillars of a house. Once the pillars are being put in place and enriched, we feel it is time to incorporate the factors of vendor quality management and product design. These are the final elements to achieving TQM."*	A summary has now been added as follows describing each TQM principle.
56	*Comment F48* Incorrect reference on Das et al., (2008)	This has been corrected accordingly.
57	*Comment F49* There is no smooth transition from the principle of top management commitment to the principle of customer focus. Recast-properly	Sub-headings for each principle of the soft aspects of TQM was now included. This will outline the discussion and thereby guide the reader.

58	*Comment F50* Incorrect reference on Harrington et al., (2012)	This has been corrected accordingly.
59	*Comment F51* No relationship between the two paragraphs on the principles of customer focus and satisfaction vs. continuous improvement.	Sub-headings for each principle of the soft aspects of TQM was now included. This will outline the discussion and thereby guide the reader.
60	*Comment F52* Sit, Ooi, Lin, & Chong, 2009; Prajogo, 2005 and Ooi, Lin, Tan, & Chong, 2011 were not referenced	This has now been included in the references section accordingly.
61	*Comment F53* Incorrect reference on Zhang et al., (1999)	This has been corrected accordingly.
62	*Comment F54* Incorrect reference on Das et al., (2008)	This has been corrected accordingly.
	CHAPTER 3	
63	*Comment F55* What is the total number of construction firms used for the study? This is supposed to form your population.	The population for this study was thirty-eight (38) different ISO 9001 certified construction firms across Gauteng. Of the thirty-eight (38) enquires made, fifteen (15) respondents agreed to participate in the study. Therefore, the final sample comprised of fifteen (15) respondents.
64	*Comment F56* Incorrect reference on Saunders et al., (2009)	This has been corrected accordingly.
65	*Comment F57* Remove the words "and selected" in the paragraph.	These words were removed accordingly.
66	*Comment F58* 3.3. What is the sample size for your questionnaire distribution What is the sample size for interview?	The size of the population was 38. The interview schedules were distributed to the 38 firms. The sample size was 15 firms that was used for the interview of this study. This was outlined in sub-section 3.3 in the original research submission
67	*Comment F59* The sample is too small for an MSc work.	The researcher quoted the following in the original research submission under sub-section 3.3

		"*Guest et al., (2006) recommends that for a homogenous sample, a minimum of twelve (12) in-depth interviews should be sufficient*."
68	<u>*Comment F60*</u> a. The sample size is too small b. The author needs to state how the population frame was picked. What informed the choice of 38 samples? c. The protocol used in formulating the sample size was not stated.	a. Refer to response on comment F59 b. The researcher searched for ISO 9001 certified construction firms in Gauteng via multiple sources i.e. internet search engines, an ISO accreditation agency, a professional networking platform and existing industry contacts. Through these sources, the researcher was able to get into contact with the designated quality management representative (QMR) at each of the ISO 9001 certified construction firms. As such, the sample was homogenous in nature as all respondents were QMR's at their respective firms. Through the non-probability sampling technique via multiple sources, the researcher arrived at a population of 38. c. The structured interviews were conducted during the period between August 2017 and February 2018. The thirty-eight respondents were contacted via telephone and email to schedule for a date and time for the interview. All thirty-eight respondents were emailed a consent letter, participant information sheet and the interview schedule prior to the date of the interview. The consent letter and participant information sheet briefly outlined the scope of the study, the confidentiality of all information and the respondent's anonymity in the

		participation of this study. Approximately two to three reminders had to be made with the thirty-eight respondents before a date and time was eventually agreed upon for the interview. The researcher experienced extreme difficulty in making appointments with the respondents. Of the thirty-eight identified firms, respondents at fifteen different firms agreed to meet with the researcher.
69	*Comment F61* Incorrect reference on Saunders et al., (2009)	This has been corrected accordingly.
70	*Comment F62* How many respondents?	The thirty-eight respondents were contacted via telephone and email to schedule for a date and time for the interview. All thirty-eight respondents were emailed a consent letter, participant information sheet and the interview schedule prior to the date of the interview. Of the thirty-eight identified firms, respondents at fifteen different firms agreed to meet with the researcher.
71	*Comment F63* The following sentence was to be re-casted: *"For the structured interviews, the research instrument that was used was than of an interview schedule."*	The sentenced was changed to the following: *"The interview schedule was the chosen research instrument for the structured interviews of this study."*
72	*Comment F64* Incorrect reference on Saunders et al., (2009)	This has been corrected accordingly.
73	*Comment F65* The correct liker scale should be in this order: Strongly agree = 5 Agree = 4 Strongly disagree = 3 Disagree = 2 Neutral = 1	Per table 3.1, the five-point Likert scale used for this study was as follows: Strongly agree = 5 Agree = 4 Neutral = 3 Strongly disagree = 2 Disagree = 1

		As such, A five-point agreement Likert rating scale was used for this study. Saunders et al., (2009) outlines the order for such a type of rating scale. The five categories for an agreement rating scale shall be strongly disagree, disagree, neutral/uncertain, agree and strongly agree. This scale was used to measure the responses from the respondents aligned to the TQM constructs. The neutral or undecided point (=3) is the midpoint of the 5-point scale. The neutral or uncertain category is the midpoint of the 5-point scale. This was given a rating of three.
	CHAPTER 4	
74	*Comment F66* Change the title of chapter 4 to read "PRESENTATION OF RESULTS"	The title has been corrected accordingly.
75	*Comment F67* 4.2.1 Fincham (2008) was not referenced in the references section.	Bibliography This has now been included in the references section accordingly.
76	*Comment F68* 4.2.1 Replace bullet points with numeric signs in this section	4.2.1 The points have been corrected accordingly.
77	*Comment F69* 4.2.1 Incorrect reference on Saunders et al., (2009)	4.2.1 This has been corrected accordingly.
78	*Comment F70* Figure 4.1 The source and the year of this figure to be included.	Figure 4.1 The figure was a presentation of the results for this study. The figure was a bar chart showing the job profile of the respondents. The researcher is of the opinion that there is no need to include the source and year for this figure.
79	*Comment F71* 4.3.1 What is your philosophical perspective to this data presented on the profile of the respondents?	4.3.1 This paragraph was added in sub section 4.3.1 *Most of the respondents had a tertiary qualification in the form of a Diploma at*

		an undergraduate level. As such the respondents had acquired the academic knowledge to develop further skills and competence in their respective job roles. This could bode well for their firms they work in, as the respondents could make a positive and beneficial contribution to their firms.
80	*Comment F72* Figure 4.2 The source and the year of this figure to be included.	Figure 4.2 The figure was a presentation of the results for this study. The figure was a pie chart showing the qualifications of the respondents. The researcher is of the opinion that there is no need to include the source and year for this figure.
81	*Comment F73* 4.3.1 What is the implication of this data presented on the profile of the respondents?	4.3.1 *This suggests that the respondents have had many years of work experience and have been part of the workforce for many years. As such, it is of the view of this study that the respondents have developed their skill set and technical competence over the years of working.*
82	*Comment F74* Figure 4.3 The source and the year of this figure to be included.	Figure 4.3 The figure was a presentation of the results for this study. The figure was a pie chart showing the qualifications of the respondents. The researcher is of the opinion that there is no need to include the source and year for this figure.
83	*Comment F75* Figure 4.4 The source and the year of this figure to be included.	Figure 4.4 The figure was a presentation of the results for this study. The figure was a pie chart showing the qualifications of the respondents. The researcher is of the opinion that there is no need to include the source and year for this figure.

84	*Comment F76* 4.3.2 The Likert scale was required to be changed. See comment F65.	4.3.2 As per the comment under F65.
85	*Comment F77* Figure 4.7 The source and the year of this figure to be included.	Figure 4.7 The figure was a presentation of the results for this study. The figure was a bar chart showing the summary of responses for the 10 TQM constructs. The researcher is of the opinion that there is no need to include the source and year for this figure
86	*Comment F78* 4.3.2 What is the implication of this data presented on the mean scores of the TQM constructs?	4.3.2 A detailed discussion on the results is given in sub-section 4.3.2. Data is referred to table 4.1
87	*Comment F79* 4.3.2 State the implication of the EE and EI less than 0.7	4.3.2 The results of 2 constructs of EE (α =0.145 and EI (α =0.636) had a Cronbach α less than the threshold of 0.7 and did not have internal consistency. The two constructs of EE and EI have therefore been omitted from the analysis of this study.
88	*Comment F80* Table 4.2 The source and the year of this table to be included.	Table 4.2 The table was a presentation of the results for this study. The table summarised the results of the 8 indicators under the top management construct. The researcher is of the opinion that there is no need to include the source and year for this table.
89	*Comment F81* 4.3.2 Present your philosophical view to summarise the content.	4.3.2 The construct of *employee empowerment* was omitted from the analysis of the study. As discussed earlier, the reason for the omission was due to low internal consistency of this construct, based on the research sample of this study. While this 'soft' aspect of the TQM principles is omitted

		from this study, this construct should definitely be considered for future studies.
90	*Comment F82* Table 4.3 The source and the year of this table to be included.	Table 4.3 The table was a presentation of the results for this study. The table summarised the results of the 4 indicators under the employee empowerment construct. The researcher is of the opinion that there is no need to include the source and year for this table.
91	*Comment F83* 4.3.2 What is MS of CI?	4.3.2 This sentence has been changed to read as follows: *"The mean score (MS) of continuous improvement (CI) …"*
92	*Comment F84* Table 4.4 The source and the year of this table to be included.	Table 4.4 The table was a presentation of the results for this study. The table summarised the results of the 9 indicators under the continuous improvement construct. The researcher is of the opinion that there is no need to include the source and year for this table.
93	*Comment F85* 4.3.2 Describe the implication of the data presented here	4.3.2 As mention in Chapter 2, several studies stated that firms should look to invest in advancing the knowledge of their employees through training and education programmes. Das et al., (2008) stated that firms should regard employees as valuable, long-term resources worthy of receiving education and training throughout their career. Based on the findings of this study, the TQM principle of education and training in the sample was ranked third amongst the TQM constructs. Further, the ET indicators (ET1 to ET5) all had a MS range of 3.20 to 4.20 out of a maximum 5. Employees at firms are strongly encouraged by management to participate in

		education and training programmes. However, the results suggest that there is a low level of agreement for employees' interest to attend such educational initiatives. The QMR's believed that employees are regarded as valuable resources and worthy of being further educated and trained during the career. The results also suggest that the firms have training resources available and employees are trained on how to use quality management tools. The study, therefore, primarily agrees with the literature of where education and training is encouraged for its employees. However, the level of interest from employees to participate in these initiatives could not be ascertained in this study. It is therefore concluded that 'education and training' is a 'soft' aspect of TQM that is being practiced on an overall basis by QMR's in this sample at their construction firms.
94	*Comment F86* Table 4.5 The source and the year of this table to be included.	Table 4.5 The table was a presentation of the results for this study. The table summarised the results of the 5 indicators under the education and training construct. The researcher is of the opinion that there is no need to include the source and year for this table.
95	*Comment F87* Table 4.6 The source and the year of this table to be included.	Table 4.6 The table was a presentation of the results for this study. The table summarised the results of the 4 indicators under the employee involvement construct. The researcher is of the opinion that there is no need to include the source and year for this table.
96	*Comment F88* Table 4.7 The source and the year of this table to be included.	Table 4.7 The table was a presentation of the results for this study. The table

		summarised the results of the 4 indicators under the supplier quality management construct. The researcher is of the opinion that there is no need to include the source and year for this table.
97	*Comment F89* Table 4.8 The source and the year of this table to be included.	Table 4.8 The table was a presentation of the results for this study. The table summarised the results of the 3 indicators under the product/service quality construct. The researcher is of the opinion that there is no need to include the source and year for this table.
98	*Comment F90* Table 4.9 The source and the year of this table to be included.	Table 4.9 The table was a presentation of the results for this study. The table summarised the results of the 5 indicators under the customer focus construct. The researcher is of the opinion that there is no need to include the source and year for this table.
99	*Comment F91* Table 4.10 The source and the year of this table to be included.	Table 4.9 The table was a presentation of the results for this study. The table summarised the results of the 4 indicators under the benchmarking construct. The researcher is of the opinion that there is no need to include the source and year for this table..
100	*Comment F92* Table 4.11 The source and the year of this table to be included. Describe the content in the table 4.11	Table 4.10 The table was a presentation of the results for this study. The table summarised the results of the 4 indicators under the reward and recognition construct. The researcher is of the opinion that there is no need to include the source and year for this table. Appendix C

		The tables in Appendix C lists each TQM construct and its associated indicators. The mean score, standard deviation and ranking of the TQM indicators are tabled.
	CHAPTER 5	
		Chapter 5 has now been merged with Chapter 4. This has been done to minimise the cross referencing.
101	*Comment F93* 5.2 Repetition…merge with section 4.3.1	4.3.1 This paragraph was updated accordingly to eliminate the repetition. This paragraph was re-cast under sub-section 4.3.1
102	*Comment F94* 5.2 Incorrect reference on Oliviera et al., (2009)	4.3.1 This has been corrected accordingly.
103	*Comment F95* 5.2 Incorrect reference on Bajaj et al., (2009)	4.3.1 This has been corrected accordingly.
104	*Comment F96* 5.2 Revalidate the findings in the context of previous findings	4.3.2 In a study by Zhang (1999), the author developed an instrument to test the validity and reliability of eleven TQM constructs for Chinese firms. The author tested for internal consistency using Cronbach's alpha. Zhang (1999) stated that Cronbach's alpha of 0.7 or more was considered good. Based on this study, the eleven TQM constructs ranged from 0.83 to 0.91. In another study conducted by Das et al., (2008), the authors undertook a study to develop valid and reliable instrument for ten TQM constructs for firms in Thailand. The authors stated that the threshold for Cronbach's alpha should be a threshold of 0.7 with a Cronbach alpha of 0.8 or more being significant and reliable. Based on this study, the ten TQM constructs ranged from 0.84 to 0.95.

105	*Comment F97* Table 5.1 Merge table with section 4.1	Table 4.1 The Table 5.1 has now been merged with Table 4.1
106	*Comment F98* Figure 5.1 The source and the year of this figure to be included.	Figure 4.7 Figure 5.1 has now been merged into Figure 4.7. Thefigure was a presentation of the results for this study. The figure summarised the responses per construct. The researcher is of the opinion that there is no need to include the source and year for this table.
107	*Comment F99* 5.3 Change "table 5.1" to "Table 5.1"	4.3.2 This has been corrected accordingly
108	*Comment F100* 5.3 Top management commitment "The study, therefore, agrees with the literature of where top management is a key driver of TQM. " Who states the authority that you agree with?	4.3.2 This statement has been removed.