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The current understanding of lean warehousing principles in a third party logistic provider in South Africa

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	AD Swart | Masters Revision			
	Assessor's Comments / Suggestions	**Area**	**What has been changed?**	**Page Reference**
1	Difference in relative importance between certain lean principles. (Assessors suggestion - This can probably be sidestepped, by simply omitting the argumentation leading up to p42. It is unnecessary and detracts from a good synthesis from there onwards.	Argumentation	The following justification has been added: "Based on the extensive literature survey completed earlier in this chapter, the author has consolidated the main Lean principles evident in warehousing from the key authors listed below. The essential Lean principles, concepts and methods were gathered by examining the literature and the theoretical framework that Bicheno & Holweg (2009), Womack & Jones (2003) and Bozer (2012) developed in their respective work. Only these authors work were focused on, as it encompasses all the relevant Lean knowledge that was sought after, and is a detailed summary of Lean research available. Their work further overlaps with each other, indicating the significance of the research presented in this report.	p39
2	Are all questions equally weighted?	Argumentation	The following has been added as an assumption: For the purpose of this study, it has been assumed that each question, lean method and principle in the questionnaire is equally weighted when graded.	p75
3	Evaluate the intra sample variance, or intra cluster range.	Argumentation	From the recommendations received (calculating mode, median and range from the raw data, and not only average), a new section has been added (5.4).	p123-p126
4	Discussion of warehouse D's management scores	Argumentation	The following has been added: When you look at the results from warehouse D, it is evident that the management from this facility repeatedly achieved very low scores. This is markedly different from the management scores from the other three warehouses. There is also no specific reason for their poor results, as all factors were consistent during the data gathering sessions. The logical explanation is that the managers from warehouse D are not as knowledgeable on Lean as their counterparts. Although these scores are not ideal when considering the total average (as it slightly skews the results), the overall outcome still reflects a gap in Lean knowledge between the different employment levels, as was sought after. Even when each warehouse is looked at individually, the knowledge gap among employees is still clear.	p128
5	Re-arranging the figures and tables in the result section (chapter 4), and repeating the questions for each lean method above each table.	Argumentation	Figures and tables in the result section (chapter 4) shuffled, to enable a better flow for the reader. Questions repeated above each table.	p82 - p109
6	Discuss outliers on figure 25	Argumentation	There exists a clear gap among Managers, Supervisors and Material Handlers. The main outliers are discussed below: • Metrics & KPI Boards 1. This Lean method received the highest grading among Managers. This is because they understand the value in displaying and keeping track of the daily progress, and how it relates to a successful operation. • Value Stream Mapping 1. Material Handlers scored the worst grading for this Lean method. This is not surprising, as the concept of VSM was misunderstood by all employment levels. This is due to very limited exposure to this concept at the third party logistics provider being studied. • Layout & Zones 1. This Lean method received the highest grading among Supervisors, higher than that of Managers. Material Handlers also scored their highest grading for this Lean method. This is a positive indication for an operation, and most likely due to them spending most of their time on the warehouse floor.	p112
7	Last paragraph on page 122 implies the value of lean, which wasn't tested, and should rather be avoided.	Argumentation	Paragraph removed.	p137
8	6.2 - Cannot assume to be generalisable to the industry, as it is a single case study	Argumentation	Assumption on generalising to the industry removed.	p139
9	Additional conclusion to be added	Argumentation	Additional conclusion added; That the model developed to test lean knowledge is a useful tool and can be used broadly.	p139
10	Summarising further studies / recommendation	Argumentation	Recommended further studies summarised into a single point.	p141
11	Link between knowledge of lean and leanness?	Argumentation	Not part of this study, but added as a recommendation for further studies. • Investigating whether there exists a link between Lean knowledge in warehousing and the actual Leanness of a warehouse operation.	p141
12	Tables and figures in low resolution	Report Structure	All tables and figures have been reproduced, at a higher resolution.	Various
13	Change refering to "the Author"	Report Structure	Not changed - This aids with the approach, structure and flow of the report.	
14	Citations of multiple authors	Report Structure	Citations of multiple authors have been corrected (in alphabetical order where applicable).	Various
15	Follow-up interview table to show level	Report Structure	Level added.	p116
16	Section 6.3 should be placed in chapter 1	Report Structure	Section 6.3 has been place in chapter 1: Link between Lean knowledge and actual Leanness added as a future research topic. It's also stated in Chapter 1 (1.6, Research Limitations), that this study will only look at Lean knowledge, and not test any correlation between that and actual Leanness.	p9
17	Paint the method as the bridge between research question and results. Assessor suggest a justification, a few words.	Methodology Employed	Chapter restructured, and more justification (with improved flow) has been given to the proposed research method, and why it is the most suitable in answering the research question (including objectives).	p46-p48
18	Changing the name from questionnaire to framework	Methodology Employed	Questionnaire changed to framework where applicable; indicating that a Lean Framework has been developed, while a group-administered questionnaire is the research instrument.	p45-p59
19	More responses and marks allocated to them / Summary of responses	Methodology Employed	A table has been included in appendix E indicating each question, along with a typical answer received during the group-administered questionnaire sessions and the marks / grading given for that answer. This is to show how the grading process was conducted for each answer received.	p162
20	Discuss role of language competence in this study	Methodology Employed	The following has been added to indicate what was done to mitigate the risk of language proficiency (and justify that language competence was adequate): – "The author verbally rephrased questions that were not fully understood, or any questions asked by participants during each session, in order to ensure that language competence is not a limitation of the study. Although this employment level is the lowest in the warehousing industry, a matric qualification is the minimum requirement to be employed by the 3PL. Furthermore, each prospective employee writes an ABET English literacy test, for which the minimum pass rate is 90% (or level 4)." Furthermore, on p121, Shortcomings of Results section has been added to indicate that even with all the mitigation, language may have still played a role.	p51, p121
21	Clarify criteria for follow-up interviews	Methodology Employed	a. After completion of the literature review and the group-administered questionnaires, semi-structured follow-up interviews were held with selected managers and supervisors who partook in the questionnaire. At the time of these interviews, only three of the four managers were available (with their three accompanying supervisors). b. The purpose of the follow-up interviews was to validate the findings generated from the questionnaires and to gain an even deeper understanding thereof. It also ensured that accurate and credible conclusions could be drawn. The follow-up interview procedure is discussed in Chapter 4.	p74
22	Add reference to justify both participants being present during follow-up interviews	Methodology Employed	According to DiCicco-Bloom & Crabtree (2006), semi-structured interviews are the most common interviewing format for qualitative research and can transpire either with an individual or in groups. In this case, two participants were interviewed together. This was done due to two main reasons: 1) the results received by managers and supervisors were very similar (as depicted in figure 26) and the author felt that by interviewing them together, the validity would be more comprehensive, and 2) due to the time and availability of the participants.	p116
23	Clarity on who the follow-up interviews were conducted with	Methodology Employed	Follow-up Interview Questions & Answers – It is now clear that follow-up interviews were conducted with both the supervisor and manager for three warehouses, totalling to 6 people. Section 5.3 (Shortcomings of Results) added in chapter 5.	p116, p121
24	Discussions should do more	General Comments	Several additional discussion points added to chapter 5. It now includes significance of findings, potential impact, curious discoveries, outliers and new knowledge as requested. Also, section 5.4 has been added (as detailed in point 3 above).	p121 - p137
25	Content of 5.3 belongs to results	General Comments	Section 5.3 has been moved to the results section. The reasons for misunderstanding have been kept as the discussion of the results, with additional comments (as listed above).	p82 - p109
26	Inappropriate use of the word palpable	General Comments	The word palpable has been removed.	p125
27	Are the interview results transcripts or an interpretation?	General Comments	Each interview was recorded, while the author made written notes in a table displaying each predetermined question. The responses were transcribed from audio recordings, as well as the written notes taken during the interview session.	p116