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A Critical Review of Common Methodological Approaches in Environmental Sustainability Practices within the Hotel Sector: In Pursuit of a Befitting Synthesis.

This paper uses a qualitative meta-synthesis approach and suggests an appropriate methodological approach to study environmental sustainability practices in the hotel sector in Malawi. Twenty selected articles published between 2007 and 2017 were purposefully selected for a meta-synthesis because of their scope. The results from this meta-synthesis indicate that the majority of researchers from developed countries use a quantitative method to establish the status of environmental sustainability practices in the hotel sector. The results also revealed that some researchers from developing countries used both quantitative and qualitative (mixed method) methods, whilst others preferred the use of qualitative. This paper, therefore, proposes a seven-stage version of the Grounded Theory methodology for studying environmental sustainability practices in the hotel sector in Malawi and Sub – Saharan Africa at large.

Keywords: Sustainability; Hotel Sector; Sub – Saharan Africa; Grounded Theory; Malawi

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1. Introduction



The tourism industry in Malawi has been identified as a possible economic sector that would help improve the economic status of the country (Bello et al., 2017). Available literature suggests that this industry has developed tremendously after the 1994 general elections. For instance, Magombo, et al. (2017) noted that policy changes which occurred after these general elections opened more opportunities for accelerated growth of the industry. More accommodation units were built because of the increased demand for accommodation. Magombo et al. (2017) states that during this period, the number of hotels of international standard increased from 9 to 13, excluding the numerous upmarket lodges which were also constructed around the same time.

Several authors agree that the hospitality sector is a major sector of the tourism industry (Aragon-Correa et al., 2015; Bello et al., 2017; Cvelbar et al., 2017; Musavengane, 2019). In which case then, to attain a sustainable tourism industry, this sector must embrace environmentally sustainable practices. It is against this understanding that this Meta – synthesis was conducted to propose an appropriate methodology for studying sustainable environmental management practices in the Malawi hotel sector. In this regard, therefore, this desk research, which focusses on selected published research articles on environmental sustainability initiatives within the hotel sector, has been initiated to analyze the various methodological approaches adopted by these researchers.

2. Qualitative Meta-Synthesis

The qualitative meta-synthesis is an important methodology that helps qualitative researchers analyze secondary results from other qualitative studies (Zimmer, 2006). Despite a contingent nature of the evidence collected from meta-synthesis and current lack of consensus about some of its aspects, Walsh and Downe (2005) are of the view that meta-synthesis remains an important technique for qualitative researchers because it thoroughly helps in the understanding of the contextual dimensions of various fields of a qualitative study. A qualitative meta-synthesis is conducted on the findings from other related qualitative



studies on a related topic as such, this approach was adopted for this study (Zimmer, 2006).

In addition, Salter, et al. (2008) states that a meta-synthesis as a process, helps the research to examine, compare, and interpret the various methodological approaches and the results from selected published qualitative studies which help the researcher advance the understanding of the applicability of the approaches in the selected topic of interest. It is from this understanding that Walsh and Downe (2005) concludes that this process attempts to integrate results from several different but inter-related qualitative studies in an interpretive manner. The purpose of this analysis is to come up with the appropriate methodological approach for similar research activity in the Malawi context, which could produce results that would inform environmental sustainability policy and practice within the hotel sector.

3. Literature Review

Research that has been carried out in many developed countries on environmental sustainability indicates that these hotels have adopted environmental sustainability innovations to save costs and reduce their negative impacts on the ecological system (Chan & Hawkins, 2010; Rodríguez-Antón et al., 2012; Wang et al., 2013). To study these developments within the hotel industry, qualitative, quantitative and at times, mixed method approaches were used by these researchers (Bohdanowicz, et al., 2001; Aragon-Correa et al., 2015; Cvelbar et al., 2017).

3.1 International research on sustainability practices in the hotel sector

The hotel sector in most developed countries adopted environmental sustainability practices because they are well informed of the potential economic and the ecological



catastrophe facing humankind (Kasim, 2009; Aucamp, 2009; Alvarez, 2014). There is limited literature that provides evidence on similar developments within the Malawi sector. Furthermore, many environmental watchdogs and support organizations such as the International Hospitality Establishments and Restaurant Association and Green Hospitality Establishments Association were established in these developed countries which propelled the adoption of sustainability practices in the hospitality sector (Ayuso, 2007; Aragon-Correa et al., 2015; Booyens & Rodgerson, 2016). Interestingly though, despite the growing body of knowledge on these developments both in developed and some developing countries, there is limited information that alludes to similar development within Malawi to promote sustainable environmental practices within the hotel sector.

To understand the impact of these developments on the adoption of environmentally sustainable practices in the hotel sector in developed countries, research has been carried out using different methodological approaches. For instance, Bohdanowicz et al. (2011) reported that in the United States of America hotels invested in various sustainability practices to save money from their operational costs. Some of these hotels adopted a zero paper office policy compliance, which helped them save money from operational costs (Rathore et al., 2009). Others changed from using paper-based communication processes to paperless electronic-based communication processes (Pantelidis et al., 2010). However, as noted by Kasim (2004) and Berezan, et al. (2013) these ecological sustainability innovations do not fully measure the traditional core competency of the hotel, and as such, some establishments tend to ignore them because of the initial high cost of adoption.

It is from this observation that research to verify the existence and practice of publicized environmental sustainability practices in those hotels that claim embrace such



practices is truly embraced. However, in Malawi, such evidence is not easy to come by because of probably luck of an appropriate methodological approach to probe environmental sustainable practices in the hotel sector.

3.2 Environmental sustainability initiatives from the developed world

Available evidence suggests that most hotels in the developed countries have advanced tremendously in terms of environmental sustainability innovations (Bohdanowicz, et al., 2011; Rheede and Blomme, 2012; Bruns-Smith et al., 2015). Most of these hotel chains systematically monitor their environmental sustainability initiatives by benchmarking within other leading hotel chains, where monitoring and performance assessment of the different sustainability goals is done (Burgos-Jiménez et al., 2002; Ayuso, 2007; Aucamp, 2009). Most of these innovations focus on energy saving, waste management, and water conservation and these innovations apart from saving costs they also enhance environmental sustainability efforts (Manaktola & Jauhari, 2007; Bruns-Smith et al., 2015; Kuščer et al., 2017). This could be suggesting that the primary focus of the innovations within the hotel outlets in developed countries is cost saving. It, therefore, remains unknown if this suggestion applies to the hotels within the sub – Sahara African, Malawi in particular.

Above and beyond the suggestions that have been advanced it is argued by many scholars that such innovations have a positive influence on guests' satisfaction and return intentions in most western guests because of the perceived hotel sustainability initiative (Meade & Pringle, 2001; Berezan, et al., 2013; Prud'homme & Raymond, 2013). In this regard, therefore, it could be suggested that international tourists' perception of new innovations within the hotel sector is to enhance environmental sustainability. This suggestion, as observed by Leonard & Dlamini (2014), justifies publicity from various hotels



regarding their perceived sustainability practices. In Malawi, there is scanty information on such initiatives, and as such, there is a need to conduct research and establish the current status on environmental sustainability initiatives. Similar efforts have also been made in developing countries including in some countries within the Sub – Saharan Africa (Rogerson & Sims, 2012; Berezan et al., 2013; Leonard & Dlamini, 2014).

3.3 Claims from sub – Sahara Africa

In developing countries, particularly in sub – Saharan Africa, some hotels indicate that they have engaged in similar sustainability initiatives (Avery, 2013; Leonard & Dlamini, 2014; Booyens & Rodgerson, 2016). In Kenya, for instance, Serena Hotels (2015) publicized that they have instituted programs that save water, energy, and reduce solid waste. Similarly, in South Africa, the Verde Hotel (2015) claimed they have a vertical aquaponic garden designed to save space while at the same time allowing for the efficient production of small plants depending on season and demand. In Malawi, as observed by Gardner (2015), Sunbird Capital Hotel claims to be engaged in conservation-related issues whereby the company planted 1000 tree seedlings at Kauma Sewage Treatment Site (figure 2) in Lilongwe under the guidance of the Lilongwe City Council. However, a visit to the site (figure 2) revealed that the stated area had no traces of the planted trees, and the area was a cattle grazing land for the local community. Furthermore, the limited knowledge available does not confirm that these initiatives are done to enhance environmental sustainability practices. In which case then, the assumption is that these initiatives are carried out for a marketing cause (Rogerson and Sims, 2012; Avery, 2013; Bello et al., 2017). In this regard, rigorous research is needed to verify practice and intended purposes in most sub – Saharan hotel establishment, including Malawi.



3.4 Research approaches to study sustainability within the hospitality sector

The meta-synthesis analysis in Table 3 is a focal point of this discussion of the four major research approaches commonly used to study sustainability practices in hotels. Several authors have written about the research tradition or paradigm; researchers usually adopt when conducting studies on environmental sustainability practices in the hotels (Bryman et al., 2011; Vos et al., 2011; Cilliérs et al., 2014). Available evidence suggests that a paradigm that a researcher ascribes to helps that researcher to determine what questions are considered worthy of investigation and the processes required to obtain answers to those questions. There are three dominant paradigms that are commonly used to conduct this type of research; namely; Positivism, Interpretivism – in which the Grounded Theory is one of the preferred methods, and Critical Realism (Corbin & Strauss, 1990; Bernard, 2006; Cilliérs et al., 2014).

3.4.1 Positivism Paradigm

Positivism is the approach of the natural sciences where researchers advocate the application of the natural science methods to study certain phenomena including social phenomena such these researchers believe that knowledge is the result of empirical observation only, and they, therefore, see a clear separation between science and non – sciences (Charmaz, 1996; Bryman et al., 2011; Cilliérs et al., 2014). These researchers generate knowledge through careful and meticulous observation and testing of hypothesis against the real world and rely heavily on experiments, utilizing control groups and experimental groups to arrive at a conclusion over a phenomenon under study (Charmaz, 2006; Bryman, et al., 2011; Cilliérs, et al., 2014). In this regard, this approach suits hotels in developed countries (Bohdanowicz et al., 2011).



Furthermore, according to available evidence, these researchers ascribe to objectivism because they believe that there is the reality which can be observed and measured to be known, in which case then, the researcher simply has to discover the laws that govern reality which has order and regularity (Bryman et al., 2011; Cilliérs et al., 2014; Creswell & Creswell, 2018). Positivists trust that theories must be universally valid and applicable regardless of cultural or historical backgrounds. Thus, they place emphasis on objective and value-free research, where theories are tested by using hypotheses (Corbin & Strauss, 1990; Vos et al., 2011; Cilliérs et al., 2014)

From the methodological stance, according to Marvasti (2004), positivists maintain that science must be based on empirical data emanating from direct observations. According to evidence available, these researchers prefer recording facts in terms of quantities, or numbers, that can be processed by using statistical techniques (quantitative research methodology) because it emphasizes quantification in the collection and analysis of empirical data (Vos, et al., 2011; Cilliérs et al., 2014; Creswell & Creswell, 2018). Thus, they use direct observation, measurement, and experiments in laboratory conditions (Bernard, 2006).

3.4.2 Interpretivisms Paradigm

This is a paradigm, according to available literature, is the opposite of positivism because it assumes that any research approach needs to respect the differences between people and the objects of the natural science and as such researchers grasp the subjective meaning of social action (Bernard, 2006; Willig, 2008; Cilliérs et al., 2014). According to Creswell and Creswell (2018), these researchers believe that people do not live in laboratories as such peoples' behavior cannot be studied in a laboratory setting. Simirarly, Bryman et al. (2011) agree that people are influenced by things happening in their environment and as such,



their behavior cannot be studied in a laboratory set up. Furthermore, Benard (2006) and Merriam (2009), agree that these researchers challenge the idea of objective knowledge and objective truth because they believe and describe the meaningful social action by gaining an in-depth understanding of what is meaningful and relevant to them. Also, these researchers believe that truth is dependent on people's interpretation of facts making generalizing results a problem because the methodologies used are sensitive to a particular context in which the study was conducted (Marvasti, 2004). Thus, they trust that reality is a social construction and that it is dependent on the meanings that people ascribe to their own experiences and interactions with others (Marvasti, 2004; Merriam, 2009; Coles et al., 2017).

These researchers generate a theory that tells a story describing and interpreting how the subject under study, in a particular context, conduct themselves on a daily basis, from where, researchers, gain an in-depth understanding (qualitative research methodology) of multiple realities. Thus, they use methods, such as focus group discussions, interviews, ethnography, and grounded theory (Corbin & Strauss, 1990; Glaser, 1992; Strauss & Corbin, 1998). Thus, it is suggested that this could be an appropriate paradigm for research on environmentally sustainable practices in Malawi.

3.4.3 Critical Realism Paradigm

This paradigm emanated from the frustration with interpretivist's passive, contextual, subjective and relativist view thus critical realism combines both positivism and interpretivism (Marvasti, 2004; Bernard, 2006; Cilliérs et al., 2014). These researchers adopted positivists' belief that real structures exist independent of human consciousness and that knowledge is a social construct which explains issues rather than predicting the outcome (Marvasti, 2004; Willig, 2008; Cilliérs et al., 2014). The assession suggests that this approach



suits research subjects that are fully aware of the ecological impacts of the hotel operation. In Malawi, this approach may not suit because of the limited sustainability knowledge levels in the tourism sector in general (Bello et al., 2016; Bello et al., 2017; Mzembe et al., 2018).

3.4.4 Grounded Theory

This research method is of special interest in this study because it provides a set of strategies for conducting rigorous qualitative research. Unlike most other research methods in that it merges the processes of data collection and analysis whereby the researcher moves back and forth between the two (data collection and analysis) in an attempt to 'ground' the analysis in the data (Corbin & Strauss, 1990; Glaser, 1992; Strauss & Corbin, 1998).

This method has two ways of conducting research (the full version and the abbreviated version), and both ways are compatible with a wide range of data collection techniques such as semi-structured interviews, participant observation, focus groups and document analysis (Glaser, 1992; Charmaz, 1996; Charmaz, 2006). The full version of grounded theory allows the researcher to push outwards, to seek out manifestations of categories, negative cases, and opposites, until category development is dense (Charmaz, 2006). This process results in detailed and differentiated subcategories formulation as theoretical saturation is being approached (Charmaz, 1996). On the other hand, the abbreviated version of Grounded Theory work with the original data only, interview transcripts or other documents (Charmaz, 2006). These data sets are analyzed following the principles of grounded theory (Corbin & Strauss, 1990; Glaser, 1992; Strauss & Corbin, 1998). This variation, therefore, suggests that the full version of grounded theory could be appropriate for researching sustainability practices within the hospitality sector in Malawi as discussed in section 4 because there is limited knowledge available.



4 Methodological Considerations

This desk research sought to analyze the methodological approaches adopted by various researchers in the field of sustainability within the hotel sector. This desk research approach involved a systematic search to retrieve relevant literature, and referenced articles began in January 2018, and the final search was finalized in April 2018. The focus was on studies conducted on sustainability practices within the hotel sector.

Also, the study uses data that was collected following a grounded theory methodology between September and December 2017 from three government departments which are mandated to regulate the hotel sector. This interview data were collected from key informants through interviews. Field visits were also conducted in areas where the same hotels claimed they were engaged in sustainability practices (Figure 2) to verify the claims made.

4.1 Detailed Process of the Qualitative Meta-Synthesis of this Study

Table 1: Qualitative Meta-Synthesis Process

Stages	Activity	Processes									
1.	Framing a Meta – Synthesis Process	 Identification of an appropriate research question. Identification of the purpose/aim of the Meta-Synthesis. 									
2.	Locating relevant studies	Location and selection of papers through a robust search on the topic area through divergent, rather than a linear search									
3.	Deciding what to include	 Identifying and comparing the epistemological approaches in each study. Location and selection of papers through a robust search on the topic area through divergent, rather than a linear search 									
4.	Appraising studies	Appraising the rigor of individual studies with a set of pre-meditated criteria									
5.	Comparing and contrasting	Comparing different studies by identifying									



			metaphors, phrases, ideas, concepts, and relationships, preserving the original meaning.
6.	Reciprocal translation	•	Translating one study's findings into another using metaphors and concepts that could be applied to both.
7.	Synthesis of translation	•	Refining clusters of metaphors and surfacing consensual substantive theory reflecting the tension between contradictory explanations.

Source: Adapted from Walsh and Downe (2005) in Lee J. (2010).

4.1 Location and Selection of Papers.

The articles were purposively selected for this study to come up with a comparative conclusion (Vos et al., 2011). An Internet search on databases of indexed journals and other peer-reviewed publications using keywords like sustainable tourism, sustainable hospitality establishments, environmental management, and hospitality establishments. In addition to this, the search for relevant literature was also carried out in various hotel websites. This effort produced 100 articles which had information relating to the scope of the study. Out of these articles, about 56 articles were sampled because they reported presumably recent knowledge in this 21 century to form the contextual and theoretical framework of this study. Using a deviant case sampling, about 20 articles published between 2007 and 2018 (10 from developed countries and ten from sub-Sahara Africa and India) were purposefully selected for a meta-synthesis. Basing on the scope of the selected papers, two publications on the hotel sector from the USA; one paper covering a case study hotel across Europe; and two papers from hotels in Spanish, one paper from hotels in Canada, Mexico, Taiwan and China respectively, where selected to represent the practices in developed countries. Publications on the hotel sector in South Africa; one publication on hotels from three eastern African countries and one on the Malawi hotel sector and one from India were chosen to represent



practices in developing countries within the sub – Sahara Africa and South – West Asia. South African publications had been favored because they are mostly used as a benchmark in the Malawi Hotel setup (Gardner, 2015; Nsiku & Kiratu, 2009; Tourism Intelligence International, 2008).

4.2 Identifying and Comparing the Epistemological approaches in each study.

The data were processed following a qualitative, meta-analysis. The identified texts were read repeatedly to gain a sense of the dataset as a whole (Bryman et al., 2011). The articles were given number codes 1 to 20. A line by line analysis of the methodology section of the selected articles was done. The texts that captured key concepts were highlighted and coded to express key concepts. The pertinent texts were highlighted and assigned predetermined codes. These codes were then group into categories and subcategories.



Table 2. Overview of studies in the Meta-Synthesis

Author	Country	Sample Size	Year	Methodological Themes					
1. Bruns-Smith et al. (2015)	USA	100	2006 & 2010	Database researchQuestionnairesObservations					
2. Nicholls & Kang (2012)	USA	217	2010	Questionnaires emailed					
3. Bohdanowicz, Zientara, & Novotna (2011)	Europe	20	2008	 Emails Interviews Questionnaires					
4. Claver-Cortés et al. (2009)	Spain	153		Questionnaires					
5. Prud'homme & Raymond, (2013)	Canada	473	2009	Questionnaires					
6. Berezan, et al. (2013)	Mexico	329		Questionnaires					
7. Rogerson & Sims, (2012)	RSA	10		• Interviews					
8. Machete & Morakinyo (2017)	RSA	8		 Questionnaires Voice recorder Observation checklist					
9. Tichaawa & Samhere, (2015)	RSA	286		 Questionnaire Interview					
10. Mearns & Boshoff (2017)	RSA	9	2010 to 2013	Resource tracking sheet					
11. Merwe & Wöcke (2007)	RSA	60		Questionnaire					
12. Leonard & Dlamini, (2014)	RSA	4	2013	• Interviews					
13. Booyens & Rodgerson, (2016)	RSA	60		• Interviews					
14. Fortanier & Wijk, (2010)	Mozambique, Tanzania & Ethiopia	123		• Interviews					
15. Bello, Banda, & Kamanga, (2017)	Malawi	12	2014	• Interviews					
16. Sharma, Yadav, & Sharma (2018)	India	66		 Questionnaire 					



			Document Analysis
17. Ganglimair-Wooliscraft & Wooliscroft (2016)	New Zealand	322	Quantitative
			Questionnaire
18. Rodríguez-Antón, et al., (2012)	Spain	294 20	008 • Survey
			 Questionnaires
19. Chan & Hawkins, (2010)	China	27	KII Interview
			Document Analysis
20. Wang et al., (2013)	Taiwan	23	Survey & Questionnaire

Table 3. Factors indicating the research approach and methodology adopted

	Overview of the research approach and methodology adopted by Authors (Table 2)																			
Methodology	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Research design																				
Exploratory x ^b x										x ^b										
Survey				xc	x ^c	x ^c					x ^c		x ^c	x ^c		x ^c	x ^c	x ^c		
Case study			X ^d					x ^d		X ^d									x ^d	
		I		ı	ı	Samp	ling P	roced	ure					1	I		I			1
Probability Sampling	xf								x ^f											xf
Non – probability Sampling			X ^g	x ^g	x ^g	X ^g	x ^g	x ^g	x ^g	X ^g	X ^g	x ^g	X ^g	x ^g	xg	x ^g	X ^g	x ^g	x ^g	
Data Collection Methods																				
Questionnaire			x ^h	x ^h	x ^h	x ^h	x ^h			x ^h		x ^h		x ^h		x ^h	x ^h	x ^h		x ^h



Interviews	xl			xl				xl	xl	xl	xl		xl	xl	xl				xl	
Observations	x ⁱ								xi											
Document Analysis	x ^j			x ^j				x ^j	x ^j		x ^j									
E-research			xk	xk																
Data Analysis Methods																				
Quantitative Data Analysis	x ^m		xm	xm	x ^m	x ^m	xm		x ^m	x ^m	x ^m	xm			xm	x ^m	xm	x ^m		
Qualitative Data Analysis								x ⁿ		x ⁿ			x ⁿ	x ⁿ	x ⁿ				x ⁿ	x ⁿ

Keys for Table 2.

Experimental Exploratory

e. Comparative f. Probability

i. Observations j. Document Analysis m. Qualitative Analysis n. Quantitative Analysis

Survey Case Study

g. Non - Probability h. Questionnaires

k. E - research

i. Interviews



5 Findings from the Qualitative Meta-Synthesis

The findings are presented in two categories: developed countries and developing countries. Out of the fifteen papers sampled for the Meta – synthesis, six are from developed countries and nine from developing countries.

5.1 Results from developed countries

The results indicate that a survey approach using structured questionnaires was favored to solicit views and draw conclusions on environmentally sustainable practices within the hospitality industry in developed countries. This suggests that these researchers are positivists (Cilliérs et al., 2014). Claver-Cortés, et al. (2009) through a survey concluded that based on environmental proactivity, there were three groups of hospitality establishments in Alicante province in Spain; Proactive, Intermediate, and reactive. Rodríguez-Antón, et al. (2012) also used crossed – ended questions in a telephone survey to patterns for integrating sustainability management systems in hotels. Prud'homme and Raymond (2013) also, through a survey, concluded that in the Quebec region of Canada, customers are happy in hospitality establishments where sustainability initiatives are adopted. Similarly, Berezan et al. (2013) concluded that there is a positive relationship between green hospitality establishments practices and guest satisfaction in Mexican popular tourist destinations. However, the few studies that were analyzed from the far eastern countries indicated that open-ended questions were favored in conducted similar research from their countries. For instance, Wang et al. (2013) partly used open-ended questions to establish how green standards in restaurant management. Similarly, Chan and Hawkins (2010) also used in-depth and semi-structured interviews to understand the impact of environmental management systems on a hotel



employee in China. These results may be suggesting that qualitative research is favored in this geographical region of the world.

Furthermore, the results show that researchers preferred non – probability sampling strategies, questionnaires, and quantitative data analysis approaches when researching environmental practices in the hospitality establishments industry. This further confirms that these researchers subscribe to the positivist paradigm (Bernard, 2006). These researchers used questionnaires to generate data and draw conclusions. The Likert scale was the commonest measurement scale that was adopted in their research tool. Their analysis was based on descriptive statistics upon which conclusions were drawn. According to Bryman et al. (2011) this approach underscores a quantitative positivistic approach. In some studies, tests were conducted to identify any statistically significant differences between responses. This also affirms the positivistic approach taken by this researcher (Bryman et al., 2011).

5.2 Results from developing countries

Out of the nine papers that were analyzed from the developing countries, two approaches were favored by the researchers (exploratory and survey). These approaches are synonymous with qualitative interpretivism (Bernard, 2006). Four researchers adopted the exploratory approach. Three used the survey approach, and two used a case study approach. Rogerson and Sims (2012) through a qualitative approach, concluded that there is low local consumer interest in green hospitality establishments as a tourism product in urban hospitality establishments of the Gauteng province in South Africa. Furthermore, they also observed that the lack of government regulatory measures is affecting the progress of hospitality establishments greening initiatives. Thus the approach adopted suggests that Rogerson and Sims are interpretivists. Tichaawa and Samhere (2015) on the other hand used a mixed



method approach and found that in East London stakeholders in the tourism industry were not aware of the impact their efforts had on sustainability practices despite existing evidence of responsible tourism practices. This lack of awareness also exists in the hospitality establishments industry in the Johannesburg area. The approach they adopted suggests they are Critical Realists. Just like Rogerson and Sims, Leonard and Dlamini (2014) employed qualitative methodology and found out that there was a need to enhance communication from central offices to various hospitality establishments managers on sustainability initiatives. While Bello et al., (2017) also used a qualitative approach whereby researcher – administered questionnaires were used to reporting that in Malawi there is a lack of top management interest and awareness on issues related to environmental sustainability and inhibit sustainability practices.

The three authors that adopted a survey approach also reported their findings. Merwe and Wöcke (2007) found out that "many of the responding hospitality establishments do not participate in responsible tourism initiatives because of - amongst others - confusion about what the concept means, and a lack of awareness of such initiatives." In the Western Cape region, it was revealed that innovation by tourism firms in sustainability issues was widespread (Booyens & Rodgerson, 2016). On the contrary, though Fortanier and Wijk (2010) through use of a mixed method approach, reported that foreign hospitality establishments investors in Tanzania, Mozambique and Ethiopia are not willing to invest in training human capacity. This is one way, or the other has a direct negative impact on sustainability awareness among hospitality establishments employees. The other two authors who adopted a case study approach, for example, Machete and Morakinyo (2017) after adopting a mixed method approach, found that in the Mpumalanga province of South Africa there was a huge variation (19.2 kg) in terms of carbon footprint between high and low



carbon emitting hospitality establishments. Mearns and Boshoff (2017) confirm that in South Africa, the Sun City Resort management team is dedicated to ensuring that the impact of the business on the environment is managed effectively to achieve greater sustainability.

The most favored sampling procedure by most authors was the non – probability method. However, Tichaawa and Samhere (2015) adopted both the probability and non probability sampling approaches. When choosing primary data sources, a stratified random sampling technique was used to target the stakeholders, who were divided into four subsectors, namely: bed and breakfasts; guest houses; backpackers; and travel agencies. Key informants were chosen through purposive sampling technique. The most preferred data collection tool adopted by most of the analyzed authors from the developing countries were interviewed. Seven authors out of nine used interviews to collect their data. Two authors combined questionnaires and interviews (Tichaawa & Samhere, 2015; Booyens & Rodgerson, 2016). Rogerson and Sims (2012), and Mearns and Boshoff (2017) used both interviews and document analysis to collect data for their studies. Machete and Morakinyo (2017) were the only authors who used three techniques (interview, observations, and document analysis) to collect data for their study. As regards to data analysis, two authors used both quantitative and qualitative data analysis techniques (Tichaawa & Samhere, 2015; Fortanier & Wijk, 2010). Four authors adopted a qualitative data analysis technique, while the remaining three used quantitative data analysis technique. This, therefore, suggests that qualitative methodology suits better in developing countries to understand the developments and generate new theory as regards to environmentally sustainable practices within the hospitality industry.



6 Current Practices in Malawi, Discussion, and Conclusion

To begin with, it would be important to start the discussions of the Meta – synthesis results by briefly explaining the empirical evidence from Malawi on the current status of the hotel sector. The Malawi Government has provided an appropriate legal framework to foster sustainability innovations within the hospitality industry. Respondent B from the Department of Environmental Affairs (Interview, 2017) said;

"Our core function is to enhance compliance with the Environmental Management Act (EMA). Within the Environmental Management Act, there is section 24, which calls for an Environmental Impact Assessment (EIA) of various development projects. Apart from that, the EMA also calls for any developer, any development project, in this case, hospitality areas, to make sure that they prevent pollution of any type or resource. But also it is there to preserve the natural resources to conserve them."

Another respondent from the Department of Tourism also indicated that regulations are available that provide guidance on sustainability. Respondent A (Interview, 2017) said;

"I think us (department of tourism) need to do more because the regulations that we have at present do not penalize units (hotels) that are not following sustainable tourism practices. What is available in the Tourism and Hotels Act, in terms of regulations is to provide advice on issues of sustainable practice and no punitive measures".

The respondent from the local government setup also indicated there is policy guidance that encourages sustainability innovations within the hotel sector. Respondent C



(Interview, 2017) from the Lilongwe City Council mentioned that: "Our policy mainly focuses on ensuring a safe environment in terms of pollution and degradation." Despite this provision of the legal framework, the hotel sector seems to be lacking capacity and knowledge to initiate sustainability innovations. For instance, Respondent B (Interview, 2017) said: "There is a big challenge in compliance amongst most of the hospitality facilities. Those that comply are mostly found in the cities or major areas which attract major interest." Respondent A (Interview, 2017) also affirmed that:

"The industry is mixed as at now. There are tourism industry players that are practicing sustainable tourism. But there are others (tourism industry players) who are not yet practicing sustainable tourism. Most of the time is due to perhaps lack of knowledge."

Similarly, Respondent C (Interview, 2017) revealed challenges that face with the hospitality sector:

"We just find ourselves in a confrontation with those that are constructing such facilities (hotels) when we enquire about how they will manage their waste and wastewaters from their premises. Sometimes, even when we enquire about how they will manage their surrounding in terms of greenery."

Most hotels in sub – Sahara Africa are now publishing their engagement in conservation efforts, for instance, Sunbird Hotels Limited in Malawi (Gardner, 2015: 14), there is need to confirm such claims through in-depth interviews and ground verification. Just like in the case of Figure 2, where there are claims indicating tree planting exercise was conducted and followed by subsequent visits to confirm the seedling tree survival rate. But to



the contrary, the claimed area has no surviving planted trees. It is from this revelation that a seven-step full version of grounded theory approach would suit research on environmental sustainability practices within Malawi.



Figure 1: Kauma Sewage Treatment Area of the Lilongwe City Assembly *Photography* by Lameck Khonje (2017)

These results reveal that in developed countries, researchers in environmental sustainability in the hospitality industry prefer using the quantitative methodology to assess sustainability practices in the industry. The conclusion drawn is that most of these researchers are positivists. As indicated already, this approach could have been favored on the assumption that the majority, both from the hospitality industry players and the customers, know what constitute environmental sustainable practices within the hospitality industry. As



indicated in Tables 1 and 2 above, surveys are common where a self-administered questionnaire is deployed to solicit views from respondents. The conclusion drawing from the analysis is that this approach is suitable in that area because of high levels of awareness on matters of sustainability; hence, it was possible to generalize the results. This approach was used in an investigation to validate the findings on sustainability.

The use of closed-ended questionnaires by researchers in developed countries could also imply that the target respondents were conversant with the subject matter, and as such it was easy to solicit their views. This conclusion is in tandem with Prud'homme and Raymond (2013) and Berezan, et al. (2013) who indicated that in developed countries the majority of the population have an adequate understanding of environmental sustainability issues. In Sub – Sahara Africa, use of a questionnaire on a survey type of research wouldn't yield the results as intended basically because of ignorance levels in sustainability-related issues. This conclusion is well supported by Merwe and Wöcke (2007). Bello, et al. (2017) and Leonard and Dlamini (2014) also agree that lack of awareness is a general problem in developing countries and as such use of the questionnaire may pose a challenge to researchers in this field of sustainability and a such a researcher-administered questionnaire suits best in this setup.

In light of the above observations and discussion ensuing from the findings, it is plausible to suggest that a Seven stage Grounded Theory approach would be an idle approach to assessing whether the advertised sustainability practices are really being pursued the cause or are just a mere advertising gimmick. As suggested by Bello, et al. (2017), most of the purported sustainability efforts in Malawi are philanthropic in nature. In this regard,



therefore, this paper suggests the below modified grounded theory approach research model for Malawi.

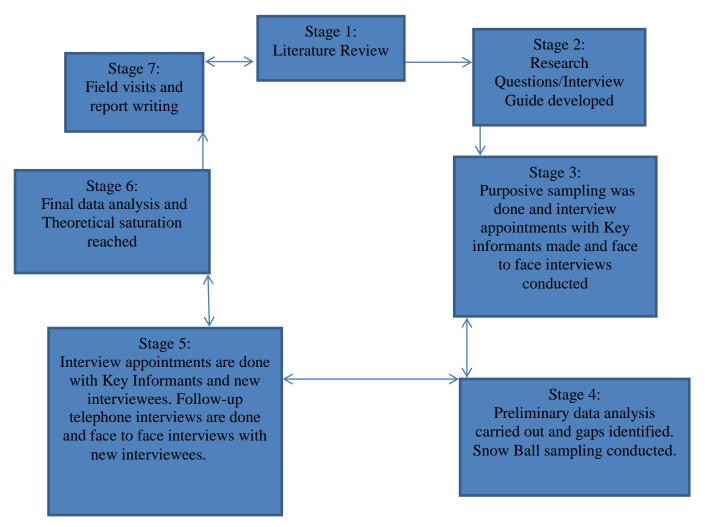


Figure 2: A 7 Stages Full Version Grounded Theory

Source: Based on fieldwork notes (2018)

This suggested model would be idle for Malawi because there are relatively few hospitality establishments chains in the country compared with other countries in the region and furthermore the interviews conducted and the ground verification exercise we took produced contradictory results. The largest hospitality chain, Sunbird Hotel Limited, has units in all the four major cities in the country and two along the lakeshore area, which is a prime



tourism area (Gardner, 2015). The finding from research from this hospitality chain could be easily generalized as applying across the hospitality establishments sector in Malawi because it is a local hospitality establishments' market leader.

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