

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter elucidates and discusses methodological issues essential for guiding the study. Section two outlines the research objectives. Section three provides basic background about research philosophy, followed by discussion of the research philosophy adopted in section four. Section five justifies the research design selected and used in this research. Sections six discusses sampling procedures, sample and sample size. Section seven covers the research instrument followed by the measurement of variables used in the study in section eight. Section nine outlines and explains the techniques for data analysis followed by statistical analysis for testing the research model in section ten. Section eleven discusses the techniques in mitigating the effect of method bias followed by the ethical considerations in research in section twelve. Finally, section thirteen extracts conclusions from this chapter.

#### **3.2 Research Objectives**

The main objective is to examine how human resource can be developed to enhance the performance of the hotel industry in Ghana.

The study will be guided by the following specific objectives:

1. To analyze the human resource development practices prevailing in the hotel industry.
2. To evaluate the impact of human resource development practices on employee competencies.
  - 2.1 The impact of training and development on employee competencies.
  - 2.2 The impact of career development on employee competencies.
  - 2.3 The impact of performance appraisal on employee competencies.
  - 2.4 The impact of compensation on employee competencies.
  - 2.5 The impact of employee involvement on employee competencies.
3. To study the impact of employee competencies on the performance of the hotel industry.
4. To study the role of employee competencies on the association between HRD practices and organizational performance

#### **3.3 Research Philosophy**

An in-depth knowledge of research philosophy is extremely effective in determining which research design is appropriate and the motive (Easterby-Smith et al., 1999). Literature parades a rare distinct philosophies or paradigms for guiding studies in business and management science. Consequently, varied designations and categorizations evolved, such as interpretivism, realism, positivism, pragmatism, etc. (Saunders et al., 2003). Accordingly, the literature affords adequate discourse in relation to these distinct philosophies in order define features and divergences in respect of epistemology, methodology and ontology (Healy and Perry, 2000).

Saunders et al. (2003) posited that positivism paradigm hypothesizes objectivity in the analyses and interpretation of gathered data. Along the same lines, this philosophy presumes that, the results procured by the approach are law-like generalizations comparable with outcomes secured by a usual scientist. Similarly, Remenyi et al. (2005) postulate that this philosophy desires quantifiable observations, highly structured methodology and statistical analysis.

Opposed to the positivism paradigm, interpretivism or phenomenology hold distinctive perspective aimed at advancing expertise, concentrating on descriptive and subjective paradigms in dealing with arduous circumstances (Remenyi et al., 2005). Similarly, this philosophical orientation cogitates each business circumstance exceptionally, with distinct and peculiar conditions. This approach abutment the objective disposition of science, i.e. the researcher is independent from what is being studied. Nonetheless, this philosophy likewise supposes that individuality will impinge how people observe the world, i.e. research is subjective. Beyond the convoluted and distinctiveness of the world, this philosophical orientation contemplates and evaluates of the altering circumstances of business organization besides distinct elucidations by people. Hence, this paradigm is not a convenient technique for generalization (Saunders et al., 2003).

Comparable to the positivism philosophy, pragmatism (realism) postulate that veracity does exist. This approach abutment the objective disposition of science, i.e. the researcher is independent from what is being studied. Nonetheless, this philosophy likewise supposes that individuality will impinge how people observe the world, i.e. research is subjective. Consequently, pragmatism paradigm bears multiple clarifications and rationalizations in support of science (Saunders et al., 2003).

Lincoln and Guba (2000) put forward distinct categories of research paradigms. The first being the positivism paradigm, which are absolutely certain about reality and signifies the accuracy of its findings. Survey (quantitative methods) or experiments can be applied in this research paradigm.

Secondly, Critical theory supposes the formation and advancement of reality is based on ethical, economic, social and political principles developed over the years. Along the same lines, this research paradigm creates subjective suppositions regarding reality. Critical theory accordingly espouses particular methods including dialectical or dialogic techniques.

Thirdly, constructivism centers on subjectively understanding specific and multiple designed realities such as values and ideologies constructed by people to establish outcomes. This paradigm asserts that, the researcher in such a subjective analysis should be an ardent participant within the world being investigated.

Finally, realism is extremely prevalent in many research studies that are qualitative in nature. This research paradigm supposes the factual nature of reality, notwithstanding its inadequate understandability. Accordingly, results obtained using this research paradigm are accurate. Convergent interviewing and case studies are the most conventional methods in realism. Along the same line triangulation, a combination of both quantitative and qualitative methods is applicable in this philosophy. Consequently, realism fosters a link between positivism and the subjectivist paradigms.

Table 1 Exhibits the main characteristic of the most conventional research philosophies and draws a comparison between them based on some established criteria.

Table 1: Research Philosophy Comparison

Features	Interpretivism	Positivism	Pragmatism
Generalization	No	Yes	Yes
Sample Size	Small	Large	Both
Measurement	Qualitative	Quantitative	Both
Cross sectional analysis	No	Yes	Yes
Reductionism	No	Yes	Yes
Deductive/inductive	No	Yes	Yes

Identify causality	No	Yes	Yes
Operationalization	No	Yes	Yes
Value – Freedom	Subjective criteria	Objective criteria	Objective and subjective
Independence	Researcher is part of the study	Researcher is independent	Researcher is both independent and part of the study

Source: Saunders et al. (2003)

It can be inferred from the above table that each of the paradigms has distinct and recognizable attributes. Nonetheless, it is obvious that the pragmatism approach incorporates elements of both objectivist and subjectivist philosophical orientation in contributing to a new direction in research philosophy methods. In other words, the pragmatism philosophy structures a perpetuity of research philosophies considering the fact that, no particular research paradigm is superior to the other.

### **3.4 Research Philosophy Adopted**

Owing to the aims and objectives, this research selected the positivism paradigm as a research philosophy and approach. Saunders et al. (2003) posited that positivism paradigm hypothesizes objectivity in the analyses and interpretation of gathered data. Along the same lines, this philosophy presumes that, the results procured by the approach are law-like generalizations comparable with outcomes secured by a usual scientist. Remenyi et al. (2005) postulate that this philosophy desires quantifiable observations, highly structured methodology and statistical analysis. Positivism was espoused due to the following reasons: the appropriate formulation of hypotheses, exploration of relationships and causality between variables in a specific industry, independence of researcher in the study and the desired generalization for star rated hotels.

### **3.5 Research Design Selected**

Crotty (1998) opined that the research question is the principal criterion in determining the type of research design. Accordingly, this current study applied descriptive research design in examining the influence of human resource development practice on employee competencies and the hotel industry's performance in Ghana. Descriptive research design is more expansive than other quantitative methods and gives a broader picture of an event or phenomenon. Using descriptive design helps to explore the relationship between variables included the conceptual framework.

This is consistent with the arguments of Lans and Van der Voordt (2002) who emphasized that descriptive research design has a high degree of objectivity and neutrality

### 3.6 Sampling Procedure

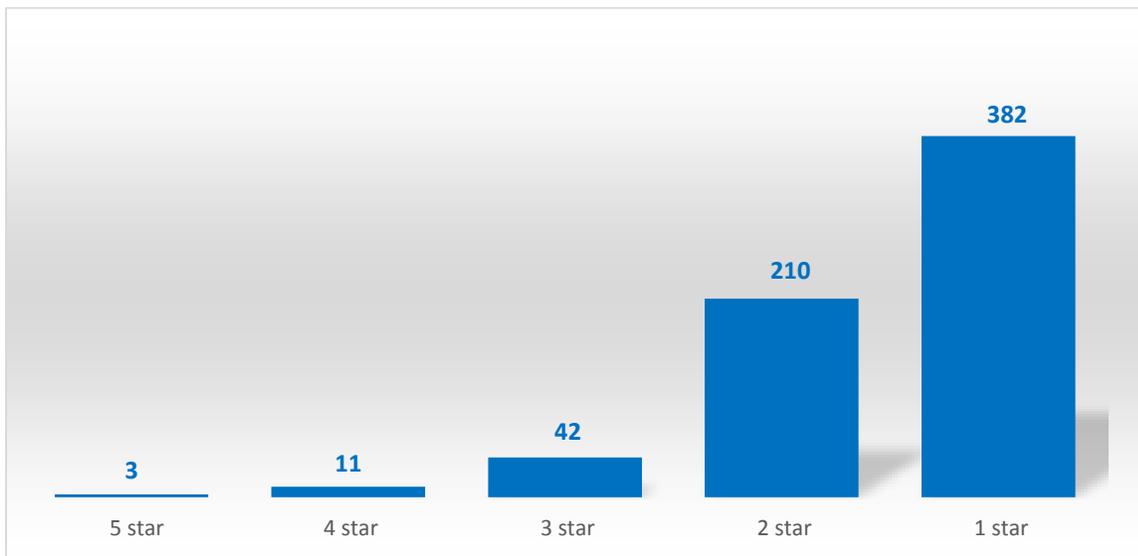
Hotels for the study were selected using stratified sampling technique. Trost (1986) opined that these sampling techniques is based on the concept of homogeneity and heterogeneity. Elements in the population are divided into heterogeneous groups referred to as strata (Fraenkel and Wallen, 2006). Ary, et al. (2002) postulate that these techniques allow researchers to analysis distinctions between a variety of subcategories of a population and ensures that defined groups are represented in the population. Popham (1993) purports that these techniques are comparatively refined than that of a simple random sampling. Hotels were selected based on the following categorization.

- Highly concentrated tourist areas
- Medium concentrated tourist areas
- Lowest concentrated tourist areas
- Hotel ratings

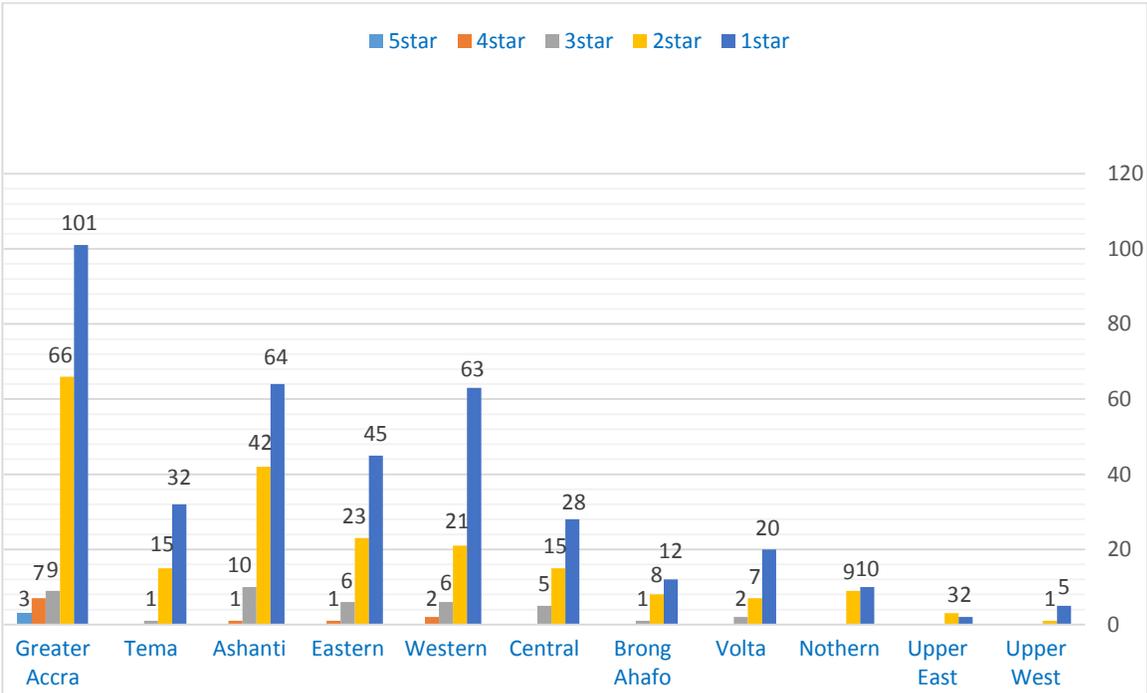
The classification of hotels is presented in

*Figure 1* below.

**Figure 1: Classification of Hotels**



**Figure 2: Regional Distribution of Star rated hotels**



presents the sampling design.

*Figure 3* presents the sampling design.

**Figure 3: Sampling Design**



### 3.6.1. Sample Size

Moher et al. (1991) posited that sample size is recognized as a key parameter for the planning of studies. The conditions required in ascertaining the appropriateness of a sample size were adhered to as stated in 3.1 above, the population of the study was heterogeneous, therefore a census survey and purposive sampling was applied in the selection of hotels. A census survey was used in the selection of four and five star rated hotels, whereas purposive sampling was applied for the selection of three to one star rated hotels. Using purposive sampling, a researcher is allowed to choose a study based on specific features and process which justified the study to be made (Silverman, 2004, p.104). Consequently, the selection of a sample population is more warranted based on a specific set of criteria than can be critically analyzed. Neuman (2005) asserts that purposive sampling technique offers the researcher the chance of choosing cases that have sufficient information to help achieve the aims and objectives of the research. Leong (2001) in his study on marketing practice and internet marketing of Singapore hotels chose the sample of hotels from the Singapore Tourism Board. In the same vein, this present study chooses its sample of hotels from the Ghana Tourism Authority. The Yamane (1967) sample size technique was applied in determining the sample size of three, two and one star rated hotels.

$$n = \frac{N}{1 + N(e)^2}$$

The rationale for the above formula is explained below, where the sample size, level of precision and sample population respectively is denoted by (n, e and N). A 50% degree of variability was assumed whereas, the confidence level was set at 95% and level of precision estimated at 5%. Employees and guests were chosen as key informants for the study. The population of the study was composed of 648 star rated hotels with a target population of 385 star rated hotels. A total of

(1925) respondents were identified and reached in the selected hotels and (1010) respondents made up of (700) employees and (310) guests reverted back with full required information corresponding to a response rate of (52.4%). Six questionnaires were excluded due to inconsistent responses and omitted answers.

Table 2: Profile of Respondents

<b>Employees</b>				<b>Guests</b>			
Variables		Frequency (s)	Percentage of totals (%)	Variables		Frequency (s)	Percentage of totals (%)
Gender	Male	450	64.3	Gender	Male	200	64.6
	Female	250	35.7		Female	110	35.4
Age	18-25	160	22.8	Age	18-25	45	6.4
	26-35	380	54.3		26-35	370	52.8
	36-45	115	16.4		36-45	120	17.4
	46-55	45	6.4		46-55	90	12.8
Education	Junior High	100	14.3	Occupation	56-65	75	16.9
	Senior High	165	23.6		Business executive	120	38.7
	Diploma/HND	260	37.1		Self employed	80	25.8
				Civil servant	40	12.9	

	Bachelor's degree	150	21.4		Public servant	30	9.6
	Master's degree	25	3.6		Student	20	6.5
					Retired	20	6.5
Department	Front office	140	20	Frequency of stay	Less than once a year	20	6.5
	Food and Beverage	230	32.9		Once a year	45	14.5
	Maintenance	90	12.8		Twice a year	158	51.2
	Housekeeping	130	18.6				
	Food production	80	11.4		Four times a year	57	18.3
	Safety and security	30	4.3		Five times or more a year	30	9.5
Experience	Less than one year	90	12.9				
	1-5 years	300	42.8				
	6-10years	125	17.8				
	11-15years	100	14.3				
	16-20years	50	7.1				
	20years and above	35	5				

From

Table 2 majority of the 700 employee respondents were males (64.3%) and in the age group 26 - 35 years (54.3%) with 1 to 5 years working experience in the hotels (42.8%). As far as the 310 guest were concerned, majority (64.6 %) were males, and in the age group 26 - 35 years (52.8%). More than half (51.2%) had stay in the hotel thrice. Schein (2004) emphasis the importance of

getting employee of an organization involved in a research process, when he contends that, employees are the actual people who implement the changes established in an organization. Similarly, Barsky and Nash (2003) and Gruen et al. (2000) postulate that, guest relations are a strategic resource for organization that promptly appreciate and satisfy guest needs. Information on the hotels was taken from the Ghana Tourism Authority Directory (2015). A letter from the Mittal School of Business, Lovely Professional University detailing a comprehensive summary of the study was addressed to the Deputy Executive Director (Finance and Administration) of the Ghana Tourism Authority, introducing the researcher. A meeting was later arranged for the researcher and three senior managers of the Authority namely, the Human Resource Manager, Quality Assurance Manager and Research and Development Manager where the objectives and significance of the current study were discussed. The researcher was officially introduced to all the regional managers of the Ghana Tourism Authority and selected hotels where the study was to be conducted. Staff of research department of the selected regions accompanied and introduced the researcher to the general managers of the selected hotels where the study's purpose and significance were discussed.

### **3.7 Research Instrument**

The technique to be used for data collection follows the selection of a research design, I. e. a longitudinal study or a cross-sectional study. The current study uses cross-sectional study design. The most widely held study design in literature is the cross-sectional survey (Churchill and Brown, 2004). Cross-sectional survey collects data in making a supposition with regard to a population of interest at a particular point in time (Malhotra and Birks, 2003). The cross-sectional study design was conducted using a structured questionnaire developed for the collection of primary data. Lucas (1999) contend that hospitality research mostly adopted the use of questionnaires. A questionnaire occupies a significant space in any research that grapple with quantitative aspect. In designing the questionnaire, issues such as; efficacy in data entry, measurement and quantification were considered (Dillman 1978; Dillman et al.,1993). Some principles were followed in order to construct the questionnaire such as relevance of the questions to the research questions and objectives; avoidance of ambiguity; avoidance of double barreled and leading questions; causing respondents to choose one response over the other dues to wording; and the avoidance of questions that were beyond the respondents' capabilities to answer, and which might frustrate the respondents resulting in poor quality responses ( Green and Donald, 1978; Churchill and Iacobacci

, 2002). The measurement instrument was pretested with fifty faculty members comprising twenty from the Mittal School of Business and thirty from the School of Hospitality Management, Lovely Professional University to ensure its validity and reliability. The measurement instrument was likewise pretested with ten experts from the sector being studied to guarantee respondents comprehend the questionnaire appropriately. The survey instrument was divided into two parts: first part gathers general data of the participants. Part two comprise items that measure variables; training and development, career development, performance appraisal, employee involvement, compensation, employee competencies, service quality, customer satisfaction and room occupancy. (Please see Error! Reference source not found. and Error! Reference source not found.)

### **3.8 Measurement of Variables**

The variables used in this study were assessed using multiple items from different studies in the extant literature. A 5-point Likert-type scale was used in measuring all items, where the respondents had to specify their level of accord with the different statements within a response range from 1 (strongly disagree) to 5 (strongly agree) (Please see Error! Reference source not found.)

**Training and Development:** Santos and Stuart (2003) and Singh (2004) effectiveness of training scale was adopted in measuring training and development. The scale which consists of twenty-five items was modified according to the current study. The scale is made up of ten items.

**Career Development:** Career development was measured by adapting Sturges et al. (2002) scale of organizational support and Denson (2007) career development need survey. The scale which consists of twelve items was modified according to the current study and generated seven items.

**Performance Appraisal:** Walker et al. (2010) and Amin et al. (2013) scales of performance appraisal was adopted in measuring performance appraisal. The scale which consists of seventeen items was modified according to the current study. The scale made up of nine items.

**Compensation:** Compensation was measured by adapting Teseema and Soeters (2013) and Singh (2004) compensation scale. The scale which consists of ten items was modified according to the current study and generated six items.

**Employee Involvement:** Amah and Ahiauzu (2013) employee involvement and Denson (2007) Organizations culture survey was adopted in measuring employee involvement. The scale which consists of twenty items was modified according to the current study. The scale is made up of nine items.

Employee competencies: Five dimensions of employee competencies were measured by adapting Hellriegel and Slocum (2011) employee competency scale.

Self-competency: Tafarodi and Swann (1995) self-competence/self-liking scale was adopted in measuring self-competency. The scale which consists of twenty items was modified according to current study and generated six items.

Team competency: Team competency was measured by adapting Eby and Dobbins (1997) teamwork scale. The scale which consists of eight items was modified according to the current study. The scale is made up of six items.

Change competency: Change competency was measured by adapting Ashford, (1988) change competency scale. The scale which consists of ten items was modified according to the current study. The scale is made up of five items.

Communication competency: Communication competency was measured using Wiemann (1997) communication competency scale. The scale which consists of 25 items was modified according to current study and generated ten entries.

Ethical competency: Ethical competence was measured using Rest (1994) competent model” for determining moral behaviour scale and Duckett and Ryden (1994) implementing the moral decision scale. The scale which consists of thirty –five items was modified according to current study. The scale is made up of ten items.

Service quality: Three dimensions of global service quality was measured using the multi-dimensional and hierarchical measurement scale developed by Martinez Caro and Martinez Garcia (2007). interaction quality, environmental quality and outcome quality.

Interaction quality: Brady and Cronin (2001) and Dabholkar et al. (1996) interactive quality scale was adopted in measuring interactive quality.

Conduct was measured by adapting Ko and Pastore (2005) and Clemes et al. (2001) conduct scale. The scale consists of three items.

Expertise: Dagger et al. (2007) and Chelladurai and Chang (2000) scale of expertise was adopted in measuring expertise. The scale consists of three items.

Problem solving was measured by adapting Dabholkar et al. (1996) Martinez Caro and Martinez Garcia (2007) problem solving scale. The scale is made up of three items.

Environmental quality was measured by adapting McDougall and Levesque (1994) and Wakefield et al. (1996) scale of environmental quality. Environmental quality has three sub- dimensions: atmosphere; facility and design.

Atmosphere was measured by adapting Dagger et al. (2007) and Kim and Moon (2009) atmosphere scale. The scale consists of seven items.

Facility: Li (2003) and Wu et al. (2011) facility scale was adopted in measuring facility. The scale consists of four items.

Design was measured by adapting Bonn and Joseph-Mathews (2007) and Tripathi and Siddiqui (2008) design scale. The scale consists of three items.

Outcome quality: Fassnacht and Koese (2006) and Grönroos (1984) scale of outcome quality was adapted in measuring outcome quality Outcome quality has three sub dimensions: sociability; valance and waiting time.

Sociability was measured by adapting Bonn and Joseph-Mathews (2007) and Brady and Cronin (2001) scale of sociability. The scale consists of three items.

Valance: Martinez Caro and Martinez Garcia (2008) valance scale was adopted in measuring valance. The scale consists of two items.

Waiting time was measured by adapting Brady and Cronin (2001) and Dagger et al. (2007) waiting time scale. The scale consists of five items.

Customer satisfaction: Customer satisfaction scale developed by Matzler and Sauerwein (2002) was adopted. Customer satisfaction has four sub- dimensions: accessibility, reliability, competence and friendliness

Accessibility: Akbaba (2006) accessibility scale was adopted in measuring accessibility scale. The scale consists of four items.

Reliability was measured by adapting Fullerton and Taylor (2002) reliability scale. The scale consists of four items.

Competence: Akan (1995) competence scale was adopted in measuring competence. The scale consists of four items.

Friendliness was measured by adapting the friendliness scale developed by Juwaheer (2004). The scale consists of four items.

Room Occupancy: Zhang et al. (2011) room occupancy scale was adapted in measuring room occupancy. Room occupancy has three sub-dimensions: has two sub- dimensions: location and room quality.

Location was measured by using factors that influence traveler's satisfaction in hotels scale developed by Chou et al. (2008) and Chu and Choi (2000). The scale consists of twelve items.

Room quality was measured by using room quality scale developed by and Wilkins et al. (2007) Chu and Choi (2001). The scale consists of six items.

### **3.9 Data Analysis Techniques**

Data analysis for this study was undertaken using the following techniques:

#### **3.9.1 Validity and Reliability of Measures**

Sekaran (2003) contend it's important to assure that the scales developed and used measure variables accurately and correctly. Literature introduces different tests for reliability and validity. validity and reliability.

##### **3.9.1.1 Validity**

The purpose of validity is to investigate how a measurement instrument items reflects and taps an exact concept as oppose a distinct concept (Sekaran, 2003). Mcdaniel and Gates (2006) assert that validity implies the extent of capturing and measuring a construct.

##### **3.9.1.2 Reliability**

Reliability ascertain the degree to which established scales are free from random error (Pallant, 2005). Sekaran (2003) and Churchill and Brown (2004) contend that reliability strive to maintain consistency and stability of scales.

### **3.10 Testing of the Research Model**

The Statistical Package for Social Science (SPSS) 20 and Analysis of Moment Structure (AMOS) 7.0. was applied in analyzing the conceptual properties of the scales and proposed model. To measure the degree and direction of the relationship among variables a correlation analysis was conducted (Krzanowsk,1998; Rodriguez,1982). Proposed and suggested correlation coefficient values were observed (Galton, 1988). To test and evaluate the causal relationship among variables a structural equation modeling (SEM) was applied (MacCallum and Austin, 2000). SEM is a synthesis of two statistical techniques: path analysis and confirmatory factor analysis (Hoyle 2011). Exploratory factor analysis was performed to select fundamental latent construct for

confirmatory factor analysis (EFA). In order to ensure measures were discriminately and conveniently valid, researcher performed confirmatory factor analysis. Confirmatory factor analysis (CFA) is a latent variable measuring technique (Kline 2010). SEM consist of a structural and measurement model (Kline 2010). The structural model is used in testing the entire hypothetical dependencies established on path analysis (Hoyle, 2011). The measurement model is used in measuring composite or latent variables (Kline 2010). The SEM application involves five coherent steps namely: model specification, model identification, model estimation, model evaluation and finally model validation (Byrne 2013; Kline 2010). Construct reliability and adequacy of internal consistency were ensured in the study through composite reliability as well as average variance extracted. Proposed and suggested threshold values were observed (Fornell and Larcker, 1981).

### **3.11 Common Method Bias**

A bias which can be attributed to a measurement technique as oppose the construct the measures denotes (Podsakoff et al., 2003, p. 879). A bias which can be attributed to a measurement technique as oppose a construct of interest (Bagozzi and Yi (1991, p. 426). Craighead et al. (2011) emphasized that, the unchecked presence of common method bias can dent the contribution to knowledge of a study. This study adapted the techniques in handling common method bias as suggested by Conway and Lance (2010) namely;

- a) Confirmation of pragmatic strides in assuaging the dangers of method effects.
- b) Construct validity evidence.
- c) A contention for the appropriateness of self-reports
- d) Paucity of overlay in items for distinct constructs.

The scales used in the study were adapted from recognized sources and a confirmatory factor analysis was performed for validity testing. The results indicate that the established benchmarks were adequate (Andersson and Bateman,1997; Mossholder et al.,1998). Throughout the process, respondents were assured of the protections of their anonymity thus reducing evaluation apprehension (Conway and Lance,2010; Podsakoff et al., 2012). These approaches warranted common method bias consequences remained insignificant.

### **3.12 Ethical Considerations**

The study participants were adequately educated about the goals of the study and the extent of participation. They were made to understand that participation was voluntary. Interested parties

were requested to indicate their acceptance to participate. Participants were not lured or coerced to participate in the study. The study participants were amply notified about one's ability to withdraw from the study without any retribution or sanction. Deception was not implored or entertained by the researcher in gathering data as respondents were made aware of the academic nature of the study. Confidentiality was maintained as respondent's anonymity was assured. Consent was duly sought from the institutions of study.

### **3.13 Conclusions**

This chapter discussed some methodological steps required for conducting this study. At the beginning of this chapter, after displaying the research objectives, possible and potential research philosophies were discussed and compared against each other. According to the research aim and objectives, the positivism philosophy was selected. Afterward, the appropriate research design for this research was selected after discussion of different options and alternatives. This study selected descriptive research rather than other designs introduced in the related literature and a cross sectional data collection method. Therefore, the chapter identified what sources would be used for the research, i.e. questionnaires. In addition, this chapter explained the measurements to be used for all variables in the study. Moreover, the methodology chapter highlighted sampling issues. Hence, this study targeted 385 star rated hotels in Ghana. Finally, this chapter outlined what statistical techniques would be used. Hypotheses and objectives were tested using correlation analysis and structural equation modelling (SEM) and the ethical considerations in conducting a research as well as the techniques for controlling or minimizing common method biases was addressed.