Case Study Research Design for Exploration of Organizational Culture Towards Corporate Performance

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Abstract
Thorough understanding about the research methodologies and designs is important for any research as each research method is a distinct strategy of addressing the study process. Case study, phenomenology, grounded theory, ethnography, and narrative are widely used research designs in qualitative studies. A case study is an empirical investigation that examines a contemporary phenomenon in detail and within its real-life context, particularly when the boundaries between the phenomenon and its context are indistinct. This paper argues the appropriateness of selecting a social constructivist inductive qualitative exploratory single-case study research design for a doctoral study of exploring the strategies which one corporate group deploy to establish an effective organizational culture to enhance performance. It is ascertained that case study research design would contribute towards addressing the call for methodological pluralism in organizational culture research, and enlightening the complex relationships relating to the sector and the phenomenon being studied.

Keywords: Research Methodology, Case Study Research Design, Organizational Culture, Corporate Performance.

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1. Introduction

Research methodology can be identified as the overall approach of the research, including the process by which the research is carried out (Remenyi et al., 2003). Research methodology depends on various factors: philosophical stance, research process, research questions, and the extent of knowledge and resources available. In a doctoral study of exploring the strategies which one corporate group deploy to establish an effective organizational culture to enhance performance, case study research design was used. Denison organizational culture model was used as the theoretical underpinning for the study.

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The paper consists of three main sections, which explain the research methodology adopted for this study with an academic rigour. In first section: the positioning of this research within the overall philosophical continuum, and in the second section: the suitability of the particular approach used for the case study research design, and in the third section: the techniques used for data collection, data organization, and data analysis are explained.

2. Research Philosophy

Research philosophy epitomizes the researcher’s specific beliefs about the world, which are expressed in the essence of the data collection, analysis and overall phenomena to be perceived and interpreted (Denzin & Lincoln, 1998). Therefore, the researcher must recognize and understand the personal philosophical position (paradigm) that defines the entire direction of the research undertaken.

The two main contrasting views that can be considered to carry out research are positivism and social constructivism (Collis & Hussey, 2003; Easterby-Smith et al., 2004; Remenyi et al., 2003). In the concept of positivism, the social world exists externally and its properties are measured through objective methods rather than subjectively inferred through sensation, reflection or intuition (Easterby-Smith et al., 2004). On the other hand, the social constructivist philosophical stance assumes that reality is not objective (subjective consciousness) or external, but is socially constructed and given meaning by people (Easterby-Smith et al., 2004). Therefore, the social constructivist approach was deemed to be more appropriate for this study by considering the characteristics of the said two opposing perspectives. As set out in the objectives, the study aimed to explore strategies that senior managers deploy to establish an effective organizational culture to enhance performance. The research required the researcher to be part of the environment and that reality was created by and through the relationships or interactions in the environment. Moreover, it was believed that there were multiple realities and no pre-existing one reality. Hence, this invalidated the method to embrace a positivistic approach.

Moreover, research philosophy can be thought of in three major ways: ontological, epistemological and axiological (Saunders, 2007). These ontological, epistemological and axiological assumptions, respectively refer to the nature of reality, the acceptable knowledge in the field of study, and the values. These three assumptions allowed the researcher to position the research within the philosophical continuum.

As per Easterby-Smith et al. (2004), ontology refers to the assumptions that we make regarding the nature of reality. There are two characteristics of ontology: objectivism and subjectivism. Objectivism states that the social entities which exist in reality are external to the social actors, but in subjectivism it is asserted that the discernment and consequent behaviour of social actors construct the social entities (Johnson & Duberley, 2000; Saunders et al., 2007). Since this study dealt with the discernment and behaviour of senior managers in a corporate group, it undoubtedly fitted into subjectivism.
The connection between reality and the researcher is referred by epistemology (Healy & Perry, 2000). It is recognized by Burrell and Morgan (1979) as how one can understand the world and convey knowledge to fellow human beings. A researcher who follows the positivistic approach believes in a pre-existing reality and deals with an observable and measurable reality, but in contrast a researcher who takes up the perspective of social constructivism does not believe in pre-existing reality and instead believes that the reality is socially constructed (Collis & Hussey, 2003; Easterby-Smith et al., 2004). Therefore, in this study, the researcher took up the social constructivist stance, since his mere intention was gathering rich data to explore the strategies which one corporate group deploy to establish an effective organizational culture to enhance performance.

Axiology refers to personal values in connection to the research topic. In positivism, researchers believe that the research process is value free and that the objects being studied are not influenced by their activities, but in social constructivism researchers believe that the research process is value-laden and that research activities are influenced by researchers’ values which help to establish the facts and interpretations of the study (Collis & Hussey, 2003; Saunders et al., 2007). Since the researcher of this study highly involved and added his values in all the steps of the research process, this research was closer to the approach of value-laden.

3. Research Logic

There are three components in research logic: deduction, induction and abduction (Collis & Hussey, 2009; Eriksson & Kovalainen, 2008). In the deductive method, the researcher might start with a particular theory of interest, and then narrow it down to few hypotheses. Such hypotheses will be tested with obtained data to either prove or disprove the original theory. The inductive method operates opposite to the deductive method; initiating from more specific observations to establishing broader generalizations and theories (Creswell, 2007; Gill & Johnson, 2002; Saunders et al., 2007). Accordingly, theories are built through induction and tested through deduction. Abduction is used to combine both induction and deduction methods (Eriksson & Kovalainen, 2008). Since this study focused on theory building in the area of organizational culture (Denison organizational culture model was used only to guide the study), induction research logic was considered.

4. Research Method

Quantitative, qualitative and mixed-methods are the basic research methodologies (Kumar, 2012; McNulty & Zattoni, 2013). Tsang (2014) indicated that quantitative method is suitable to examine the relationship between different variables in a study whilst the qualitative method is suitable to explore the intended
phenomenon in a study. Qualitative method is suitable for social science research, especially in the case of studying individual and group behaviour in an organization (Yin, 2014). The researcher therefore used a qualitative method in order to explore the role of organizational culture in the study company. Other methods did not meet the needs of the study since quantitative and mixed-methods are suitable to quantify causal relationships and to analyse numbers instead of exploring and explaining situations (Allwood, 2012).

5. Research Design

In qualitative studies, there are five basic research designs: case study, phenomenology, grounded theory, ethnography, and narrative (McNulty & Zattoni, 2013). According to Yin (2014), case study designs are suited when “what” or “how” questions are being asked about, a contemporary set of events, and over which the investigator has little or no control. Boblin et al. (2013) indicated that case study design is suitable to conduct in-depth studies in various organizational settings. Therefore, the researcher chose a case study research design for the study as it was relevant to explore the role of organizational culture in the study company. The remaining four designs: phenomenology, grounded theory, ethnography, and the narrative did not suit the needs of the study. Phenomenology design is suitable to document from lived experience of the phenomenon. Grounded theory is suitable to explore the process, action, or interaction from the participants’ perspective. Ethnography design is suitable to discover cultural groups with natural settings. Narrative design is suitable to explore the life and history of an individual (McNulty & Zattoni, 2013). Welch et al. (2013) indicated that case study research design is the most prevalent method in business management research. For example, Wiewiora et al. (2014) used a case study to investigate important factors influencing organizational culture and knowledge sharing mechanisms in a project-based company in Australia. Uddin et al. (2013) used a case study to explore the role of organizational culture on employee performance in a multinational company in Bangladesh. In both studies, case study research designs were useful to explore the existing issues and develop theories.

According to Yin (2014), case study research design involves three basic approaches: explanatory, exploratory, and descriptive. The exploratory case study approach is suitable to explore situations and processes in a case, and it is appropriate to answer “what”, “how”, and “why” questions in the research (Poulis et al., 2013). Welch et al. (2013) indicated that exploratory case study approach is suitable to cover various matters in the business organizations and social institutions. The remaining two approaches: explanatory and descriptive case studies did not meet the needs of the study. The explanatory case study approach was not suitable for the study since it is used to explain causal relationships and develop theories through detail explanation of the phenomenon. The descriptive case study approach was not suitable for the study since it is mainly served for cause and effect analysis (Yin, 2014).
There are two basic types of case study research designs: multiple-case design and single-case design (Yin, 2014). Multiple-case studies are suitable for studying multiple cases in a single study and for providing a single set of cross-case conclusions (Welch et al., 2013). A multiple-case design is not suitable for conducting unusual, critical, and revelatory cases (Yin, 2014). According to Aaboen et al. (2012), multiple-case design involves multiple-experiment on the case and provides replication designs and pre-structured frameworks for case comparison. The single-case design suited the needs of the study since the study company having a history of using an effective organizational culture to enhance performance. Yin (2014) indicated that the single-case might represent the critical test of a single theory. For example, Smets et al. (2012) conducted a case study using an exploratory single-case design to explore a model of practice-driven institutional change in a financial company in Germany. Antebay and Molnár (2012) used an exploratory single-case design to investigate an essential element of an aerospace company identity in France, and proved the importance of exploratory single-case design approach to explore causations and to develop theory in a case of a single company.

6. Case Boundary and Units of Analysis

It is important to identify the case boundary and the units of analysis in order to conduct the case study properly (Abeysekera, 2019). The case boundary of the study was a leading corporate group in Sri Lanka having 47 companies belongs to six main sectors of Automobiles (4%), Financial Services (18%), Health Care Services (18%), IT & Others (6%), Leisure & Property (4%), and Retail (50%) with an annual turnover of LKR 75 Bn. The units of analysis for the study were senior managers, which included six Sector CEOs at the corporate level and fourteen GMs at each company level selected by the purposive sampling method.

7. Population and Sampling

The sample shall draw from the target population of the qualitative study (Cleary et al., 2014; Poortman & Schildkamp, 2012; Poulis et al., 2013). In this study, the target population was senior managers of a leading corporate group in Sri Lanka. Researchers have to determine their sample size based on the nature of the topic and availability of data (Frels & Onwuegbuzie, 2013). The researcher used the purposive sampling method to select participants for the study. Kaczynski et al. (2014) indicated that selection of influential company representatives as the purposive sampling method in a case study design. The purposive sampling method was important for determining the adequacy of the sample size and for representing the target population of the study (Cleary et al., 2014; Poulis et al., 2013; Yin, 2014).

Researchers shall determine adequate sample size in order to ensure the data saturation in the study (Dworkin, 2012; Fusch & Ness, 2015; Yin, 2014). Data
saturation is an adequacy point in a data collection process which occurs when the researcher achieves in depth and a breadth of information for his study (O’Reilly & Parker, 2013). Marshall et al. (2013) indicated that an average interview size of 11-16 participants is generally adequate to reach the data saturation level in a qualitative study. Therefore, a sample size of 20 in-depth interviews allowed the researcher to reach the data saturation level in this study.

In a qualitative study, the adequacy of sample size to be determined based on the consistency and quality of data (Cleary et al., 2014; Lee, 2014). The researcher chose influential senior managers in the corporate group to obtain consistent data for the study. O’Reilly and Parker (2013) indicated that the quality of data is important to reach the data saturation point. Further, the researcher used follow-up questions to gain in-depth information for the study and to assure the data saturation for each interview question (Dworkin, 2012).

Participants must have adequate experience and knowledge about the study topic to respond research questions appropriately (Eukeria & Favourate, 2014). Poortman and Schildkamp (2012) indicated that participants with senior level are appropriate to answer the interview questions and to represent the population. Therefore, participants’ experience, position, and seniority in the study company were considered in the selection criteria.

The researcher used an interview protocol to conduct in-depth interviews with study participants. The interview protocol included: an overview of the case study project, date and time of the meeting, details of the participant, instructions for the participant, participant consent form, semi structured interview questions (interview guides), and other relevant notes (Frels & Onwuegbuzie, 2013). The prearranged interview schedule was useful to conduct interviews in a timely manner since participants might have busy schedules engaging with their day-to-day duties (Radcliffe, 2013).

8. Data Collection Techniques

Face-to-face interview, direct observation, and document review are widely used qualitative data collection techniques (Khan, 2014; Marshall & Rossman, 2016). Moreover, face-to-face interviews are suitable to gain the insight and precise context into the study topic, and to ascertain the emotions of participants (Jacob & Furgerson, 2012). Radcliffe (2013) indicated that interview technique provides the flexibility to control the lines of questioning, and to accommodate follow-up questions in the interview process. In-depth interviews are useful to explore the study's phenomenon comprehensively (Cleary et al., 2014; Yin, 2014). Therefore, the researcher chose face-to-face interview as the main data collection technique for the study.

For this research, the permission was obtained from the corporate group’s MD to conduct interviews with senior managers the company, and to get access to the other relevant information. The interview process included, planning and preparation, taking interview notes for key points, and recording the interview
conversation (Jacob & Furgerson, 2012; Radcliffe, 2013). Yin (2013) indicated that audio records are appropriate to retain the data for further analysis. After completing the interview process, all audio recorded interviews were transcribed into written format for data analysis.

The main detriment of using interview technique for a qualitative study is that compared to the other data collection techniques the interview process demands more time and resources (Jacob & Furgerson, 2012). The researcher allocated 60±10 minutes to interview each participant in this study. Yin (2014) indicated that potential for interview biases as another detriment of the interview technique. Therefore, the researcher of this study used pre-arranged semi structured interview questions (interview guides), and followed the interview protocol to avoid potential biases and provide structure to the interview (Bevan, 2014; Kaczynski et al., 2014).

9. Data Organization Techniques

Well-organized data is easily accessible and tracked for the purposes of review and analysis (Khan, 2014). The data organization technique used for the study involved establishing and filing electronic data by main and subfolders in a secured external data storage. The well-labelled electronic folders contained soft copies of journal articles and books, interview transcripts, audio files, and other relevant documents. Soft copies journal articles and books were organized by their publication year, title, and authors' last name for easy access.

Khan (2014) indicated that the technique of organizing qualitative data involves arranging the information in an ordered manner for analysis. The researcher of this study used Microsoft Excel 2016 spreadsheets and Microsoft Word 2016 documents to organize the data. Unique identification numbers were allocated to represent study participants from CEO-01 to CEO-06 and from GM-01 to GM-14, which were useful in maintaining their confidentiality and identifying them during data analysis (Brewis, 2014; Radcliffe, 2013). The data organization technique included arranging the interview responses against each question. Grouping together of similar information led to develop themes and patterns (Pierre & Jackson, 2014; Yin, 2014).

The research data shall remain in a secured location for at least for 5 years after publication (APA, 2017; Khan, 2014). Therefore, the researcher protected all the research data by saving all electronic data in a secured external data storage and placing hardcopy documents in lockable file cabinets.

10. Data Analysis Techniques

Data analysis of this qualitative study involved line-by-line reading of interview transcripts, categorizing similar concepts together, and analysing data for themes. The analysis involved preparing the transcripts for analysis, coding the
Yin (2014) indicated five types of techniques to analyse qualitative data: pattern matching, explanation building, time series analysis, logic models, and cross case synthesis. Pattern matching is the most suitable technique to analyse a case study (Yin, 2014). According to Trochim (1989), it compares an empirically-based pattern with a predicted one or with many alternative predictions. If the patterns coincide, results can support the case study to strengthen its internal validity. The researcher of this study used a pattern matching technique to analyse the case. The explanation building technique was not suitable for the study since the technique is mainly used for descriptive case studies. Time-series analysis had no relevance for the study since it did not deal with any time series data. The logic model technique stipulates a complex chain of events over an extended period of time, and this technique is used in case study analysis when case events are staged in repeated cause and effect patterns. This technique also had no relevance for the study since it did not involve with a complex chain of events. Cross-case synthesis was not suited for the study since the technique is unique for multiple case studies (Abeysekera, 2019).

The triangulation method is essential in the study process for the implementation of systematic checks and balances (Kapoulas & Mitic, 2012). Yin (2014) indicated four types of triangulation methods in a case study: data triangulation, investigator triangulation, theory triangulation, and methodological triangulation. Data triangulation involves similar findings from several sources to validate the results. Investigator triangulation validates the results by several researchers. Theory triangulation involves more than one theory to explain the phenomenon of the study (Hoque et al., 2013). Methodological triangulation collects data from several methods to validate the results. Data triangulation is commonly used triangulation method in case study research (Azulai & Rankin, 2012). The researcher of this study used data triangulation. The triangulated data were collected from two sources: from Sector CEOs at the corporate level, and from GMs at each company level.

The researcher of this study organized and prepared the data for analysis by transcribing interview conversations from the audio files into written formats, and amalgamating other handwritten notes. The data analysis process of the study involved in-depth evaluation of data, credibility verification of evidence, and interpretation of findings (Azulai & Rankin, 2012).

The data analysis process included coding process, which involved organizing data into meaningful segments by listing concepts and categorizing similar information (Dierckx de Casterlé et al., 2012). According to Yin (2014), codes are developed from past literature, surprising concepts from interview transcripts, and ideas that include large conceptual perspectives in the study.

Themes are significant findings in a qualitative study (Dierckx de Casterlé et al., 2012). Case study researchers generally use 5 to 7 themes to categorize their
study findings for analysis and interpretation (Yin, 2014). In this study, emerging themes were grouped into four key themes of involvement, consistency, adaptability, and mission based on the Denison organizational culture model. Themes could combine with the conceptual theory in order to demonstrate the role of effective organizational culture in enhancing corporate performance (Schneider et al., 2013). Themes were interpreted into the discussion and narratives as the final step of data analysis in this qualitative study (Yin, 2014).

Sinkovics and Alfoldi (2012) indicated that research can be supported by computer programs to analyse data and store searchable information. Dierckx de Casterlé et al. (2012) indicated that computer programs are useful for qualitative data analysis with techniques to compare and contrast different codes, sort and locate large codes, and quickly modify and store bulk codes. The researcher of this study used NVivo 11 qualitative data analysis software to organize, sort, analyse, and find insights from the interview transcripts. Moreover, Microsoft Word 2016 documents and Microsoft Excel 2016 spreadsheets were used to further sort, organize, analyse, and document the refined data.

11. Validity and Reliability

Validity and reliability are critical when evaluating the logical statements of a research design. Yin (2014) indicated four types of tests in this relation as construct validity, internal validity, external validity and reliability. Construct validity involves testing operational measures for the concepts being studied (Khan, 2014). The techniques such as data triangulation, establishment of a chain of evidence, and key informants review the case study report were used to validate the credibility of the study. The purpose of internal validity is to address the effects of experimental and quasi-experimental research, and that was not relevant for the study. External validity is important to test the generalizability of the study findings, and that was also not relevant for the study since it was a single-case design (Tsang, 2014). However, in future similar studies, researchers may use the study results to externally validate and generalize their findings (Kaczynski et al., 2014).

Reliability indicates whether the operations of a study such as data collection procedures can be repeated with the same results (Abeysekera, 2019). In a qualitative study, conformability is the independence of the researcher and degree of neutrality (Kapoulas & Mitic, 2012). The conformability of the data has to be validated by avoiding biases during the data collection process. The researcher of this study assured the conformability of the results by using semi structured interview questions (interview guides) and following an interview protocol to avoid personal biases during the interview process (Jacob & Furgerson, 2012; Kaczynski et al., 2014; Yin, 2014). An adequate sample size of 20 in-depth interviews led to the data saturation in this study (Marshall et al., 2013). O’Reilly and Parker (2013) indicated that data saturation in a qualitative study is the indication of quality, generalizability, and transferability of the study findings.
12. Conclusion

The proper understanding of the philosophical stance and the research strategy are important to carry out a research successfully. This paper presented the rationale for selecting the case study research design for a doctoral study. The appropriateness of selecting a social constructivist inductive qualitative exploratory single-case study design for a study of exploring the strategies which one corporate group deploy to establish an effective organizational culture to enhance performance, was well argued with an academic rigour. It is ascertained that case study research design would contribute towards addressing the call for methodological pluralism in organizational culture research, and enlightening the complex relationships relating to the sector and the phenomenon being studied.

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