Chapter 6
Research Methodology

ABSTRACT

This chapter will describe the philosophical assumptions and research methods for assessing the hypotheses and structural model discussed in Chapter 5.The research paradigms and research design show this research will combine the advantages from both the qualitative and quantitative methods. Pilot study for six cases interview is the main qualitative research method and surveys as the main quantitative method are used. This research mainly focuses on the exploratory, descriptive and explanatory research methodologies. Qualitative research design, the sample selection procedure and administration of the interviews also is also designed for the validation of this research. Pilot study's objectives and questions, sample selection procedure, administration of the interview will be displayed. The quantitative research design concerns population and sample, research design for the quantitative method, ethics approval, measurement instrument and methods of data analysis techniques (Structural Equation Modelling).

INTRODUCTION

Research methodology refers to the specific techniques of data collection and analysis in order to solve a research problem (Dube & Pare, 2003). It draws on conceptual essence and systematically acquitted new insights to procure knowledge of a phenomenon within the parameters of inquiry. Both qualitative (face-to-face interview and pilot study techniques) and quantitative (online and mail survey) data collection will be examined.

As Babbie (2007) mentioned that 'there are three most practical purposes prevalent for much of research: exploration, description and explanation'. Although the topic about the information acquisition and sharing has a great number of academic and practical researches and reports, it is yet a relatively new area without sufficient scientific information from the point of view in the field of inter-organizational collaboration in electrical industry. Therefore, the research is anticipated to find out why the electrical enterprises want to adopt collaboration and e-business technologies, what e-business technologies they use to facilitate the information in collaboration and how they adopt collaboration and e-business technologies to achieve business performance improvement.

This chapter will discuss the selection of a positivist approach for the research paradigm. Section 3 clarifies the research design of this study. Section 4 reports the qualitative research design and the pilot study procedure. Section 5 displays the quantitative research design. Detailed sample size, measurement instruments, data collection procedure and data analysis techniques will be provided in this section. A conclusion will summarize the content of the chapter.

RESEARCH PARADIGMS

Research paradigms display a basic system with certain philosophical assumption to guide researchers in selecting appropriate research methods to investigate the perceived reality and possible relationships among various constructs (Sale et al., 2002; Neumann, 2003). Normally, there are three paradigms which have been classified according to their differed approaches in phenomenon interpretation in studies: positivist approach, interpretive and critical (Cecez-Kecmanovic et al., 2002). The criterion of selecting a research paradigm and subsequent research approach is suitability in the context of the research questions (Neumann, 2003).

Positivist approach is the most desirable approach to argue on the existence of a fixed relationship within phenomena. Reality is viewed as a truth that already exists 'independent of human perception and his or her tools' (Chen & Hirschheim, 2004). The investigator and the phenomenon are regarded as independent entities so the investigator may study the phenomenon without being affected by it or having any effect on it (Sale et al., 2002). The quantitative approach is generally the most commonly used data collection method. Verification and the search for generalizable results is the primary focus. The positivist approach aims to understand the causal relationship among the variables being studied. Researchers using this approach should use objective measures when gathering data. It is scientifically oriented and quantitative in nature, with survey being the most common tool of data collection.

20 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/research-methodology/134160

Related Content

Cognitive Knowledge
(2015). *Organizational Knowledge Dynamics: Managing Knowledge Creation, Acquisition, Sharing, and Transformation (pp. 27-49).*
www.irma-international.org/chapter/cognitive-knowledge/125908

Effective Implementation of Knowledge Management Strategies and the Key Roles of Knowledge Ambassadors in Strategy Integration: A Longitudinal Participative Case Study of Cross-Divisional Strategy Integration
Annabeth Aagaard (2013). *International Journal of Knowledge Management (pp. 31-46).*
www.irma-international.org/article/effective-implementation-of-knowledge-management-strategies-and-the-key-roles-of-knowledge-ambassadors-in-strategy-integration/99642

Rakshak: A Child Identification Software for Recognizing Missing Children Using Machine Learning-Based Speech Clarification
Ashutosh Dixit, Preeti Sethiand Puneet Garg (2022). *International Journal of Knowledge-Based Organizations (pp. 1-15).*
www.irma-international.org/article/rakshak/299968

Linking Small Business Networks with Innovation
Patrice Braun (2008). *Knowledge Management: Concepts, Methodologies, Tools, and Applications (pp. 2866-2873).*
www.irma-international.org/chapter/linking-small-business-networks-innovation/25304

Why Would I Share?: The Intention to Use Blogs for Knowledge Sharing According to Gender, Experience, and Cultural Differences
Yanyan Shangand Yousra Harb (2021). *International Journal of Knowledge Management (pp. 1-20).*
www.irma-international.org/article/why-would-i-share/281621