Chapter 6 Research Design

Krishantha Wisenthige

b https://orcid.org/0000-0001-8334-6434 Sri Lanka Institute of Information Technology, Sri Lanka

ABSTRACT

The framework of methods and techniques that the researcher has chosen to conduct the research is described as research design. In social science research, it is required to collect evidence relevant to the research problem, especially evidence required to evaluate a problem, to test the theory, or to describe a phenomenon. Successful research designs should be able to provide research insights that are accurate and unbiased. This chapter covers the type of research designs, and names key characteristics of a good research design; neutrality, reliability, validity, and ability for generalization as well as qualitative, quantitative, mix method research, and fix and flexible research designs.

1. INTRODUCTION

The framework of methods and techniques that the researcher has chosen to conduct the research described as Research design. The term "research" describes collection of data, evidence based on the research problem, analyzing, and coming to conclusions based on the findings taking research methodologies into consideration. It ensures the researcher that evinces obtained from the research effectively address research problem by minimaxing the ambiguously as possible. In the social science research, it is required to collect evidence relevant to the research problem, specially evidences required to evaluate a problem, to test the theory or describe a phenomenon. Successful research design should be able to provide research insights that are accurate and unbiased. This chapter covers the type of research designs, key characteristics of a

DOI: 10.4018/978-1-6684-6859-3.ch006

Research Design

good research design; neutrality, reliability, validity, and ability for generalization as well as qualitative, quantitative & mix method research and fix & flexible research designs. Chapter also discuss the types of research design by grouping, benefit of research design and role of researcher.

2. RESEARCH METHODOLOGY

The research onion framework proposed by Saunders et al. (2012), explains the different aspects of the research to be considered to come up with a sound research design while Saliya's (2021) 7Ps model suggests integrated approach for conducting research (Figure 1). The research onion provides guidance to the researchers about essential steps that need to be taken when developing a research methodology for research. The research onion was divided the into three levels of decisions (Saunders et al., 2019) as first two outer rings, i.e., (i) Research philosophy and (ii) Research approach; Research design which constitutes (a) methodological choices, (b) research strategy and (c) time horizon; and (iii) tactics, i.e., the inner core of the research onion, which includes data collection and analysis aspects. Contrarily, Saliya's (2021) 7Ps provide seven pillars of the research process as an integrated flexible approach.

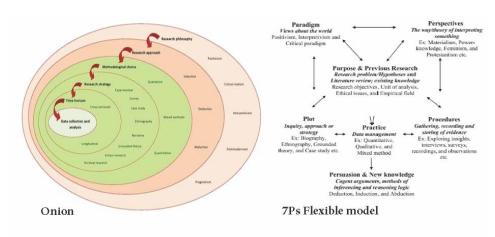


Figure 1. Integrated-flexible vs onion Sources: Saunders et al. (2019) and Saliya (2021)

Research Philosophy, research approach, research strategy, methodological choices, time horizon and data collection & analysis are the six main layers of

18 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: <u>www.igi-</u> global.com/chapter/research-design/320212

Related Content

Ethical Considerations in Online Research Methods

Harsh Suriand Fay Patel (2019). Scholarly Ethics and Publishing: Breakthroughs in Research and Practice (pp. 646-661). www.irma-international.org/chapter/ethical-considerations-in-online-research-methods/222333

Factor Analysis of the Sydney Metro's ITS: System Integration Iteration

Koorosh Gharehbaghi, Kenneth Farnes, Kathryn M. Robsonand Neville Hurst (2021). International Journal of Strategic Engineering (pp. 1-13). www.irma-international.org/article/factor-analysis-of-the-sydney-metros-its/279642

Exploring the Profile and Behavior of Visitors to Crete

Oumayma Mzoughi, George Baltasand George Baourakis (2021). *International Journal of Strategic Engineering (pp. 55-67).* www.irma-international.org/article/exploring-the-profile-and-behavior-of-visitors-to-crete/269717

Building Collaborative Ontologies: A Human Factors Approach

Tatiana A. Gavrilovaand Irina A. Leshcheva (2015). *Collaborative Knowledge in Scientific Research Networks (pp. 305-324).* www.irma-international.org/chapter/building-collaborative-ontologies/119829

Engineering Students' Approaches to Learning Mathematics

Samuel Olugbenga King (2017). *Methods and Paradigms in Education Research (pp. 167-190).*

www.irma-international.org/chapter/engineering-students-approaches-to-learningmathematics/170994