Empowering local governments in making cities resilient to disasters: research methodological perspectives

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Abstract

The paper aims to elaborate the research methodology adopted for a doctoral research study aimed at developing a framework to empower local governments to make cities resilient to disasters in the built environment context. Based on the constructionism epistemological undertaking and the theoretical perspective of being interpretivistic in nature, the research falls under the category of qualitative research. Therefore, qualitative strategies were best suited for conducting the study. Various research strategies exist for qualitative research such as case studies, ethnography, grounded theory and phenomenological research. The research seeks to investigate how local governments can be empowered to make cities resilient to disasters in the built environment context and, out of the available qualitative research strategies, case studies were identified as the most appropriate research strategy for the research discussed in this paper. The paper compares and contrasts the available research strategies and puts forward the suitability of the case study research strategy in order to achieve the aims and objectives of the research. In doing so, the paper outlines the inherent components of the methodology namely, research philosophy, approach, strategy, choice, time horizon and techniques while justifying the suitability of the selected methodology through various research methodology literature.

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Keywords: Case study, Disaster, Local Government, Research methodology, Resilient cities

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1. Introduction

Research is a systematic and methodical process of enquiry and investigation with a view to increasing the knowledge domain [1]. Research methodology is the basis by which the research is directed to the right path. It informs the philosophical underpinnings, research strategy and choice of data collection and analysis. Methodology varies according to the research problems investigated, and therefore identification of the most appropriate research methodology is essential to achieve the aims and objectives of the research and to ascertain the credibility of the research findings. Therefore, selection of an appropriate research methodology is one of the fundamental aspects of any research study to ensure the validity and reliability of the research findings. The paper therefore elaborates the research methodology adopted for a doctoral research study aimed at developing a framework to empower the local governments to make cities resilient to disasters in the built environment context.

Firstly, the process adopted to establish the research problem and the aim and objectives of the study are explained. Secondly, the process involving the selection of the research philosophy, research approaches, research strategies, choices of methods, time horizons and techniques and procedures are discussed while adopting Saunders et al. [2] research ‘onion’ as a guideline. Thirdly, the validity and reliability of the research design is presented. Finally, the research methodological design is summarised.

2. Research topic, aim, objectives and questions

Formulating a research topic is normally the starting point of a research. Authors such as Saunders et al. [2] and Remenyi et al. [3] emphasized the importance of selecting a research area which matches the strengths and interests of the researcher. Accordingly, the subject area has been defined as “making cities resilient to disaster” based on researcher’s own expertise and interest. According to Saunders et al. [2], achievability, appropriateness, relevance and access to data are also important in deciding a research area. With the increase in disaster occurrences and their growing impact on cities, the subject area selected for the study was popular within the field and extremely relevant at the time of undertaking the research.

Based on the initial assumptions, a literature review has been conducted by referring to books, journal articles, conference proceedings, reports and websites published by various institutions. This has helped the researcher to gain an in-depth knowledge on the broader area of “making cities resilient to disaster”. The initial review of the literature helped the researcher to narrow down the area of study to the built environment context (which is directly linked with the researcher’s strengths and interests). Consequently, the researcher was able to identify initial gaps in the selected subject domain. The initial review helped the researcher to understand that there is a large number of stakeholders need to become involved in the process of making resilient cities, following which local governments are required to play an essential role as they are the main governing body in every city [4,6,7,8]. Although local governments have been identified as key stakeholders in the process of making cities resilient, via the initial literature review [7,4,11] it was possible to identify several gaps in the contributions made by local governments in making their cities resilient. Therefore, the critical review of the literature helped to refine the initial research ideas and to gain a thorough knowledge in the area of the research.

Having identified the key literature concepts and the gaps in the existing body of knowledge, the next step was to carry out a more detailed and specific review of the literature looking at the concepts such as, disaster resilient cities and the built environment; role of local governments in creating disaster resilient cities and the associated challenges; and empowerment of local governments. Having carried out a critical review of the literature, the researcher was able to establish the research problem, the aim and the objectives of the study and was able to develop the initial conceptual framework. These were further refined based on expert opinions.

Unstructured interviews were carried out with three experts who are extensively involved in the disaster management field of study and, based on their opinions, the research problem was refined and the aim, objectives and conceptual framework were further refined to reflect the refined research problem. Unstructured interviews are more informal and are used to explore, in depth, a general area in which the researcher is interested [2]. Thus, in this research, unstructured interviews were used at the very initial stage of the research in order to receive expert opinions pertaining to the initial research problem, research aim, objectives and the conceptual framework. Accordingly, the unstructured interviews helped to shape the initial ideas of the researcher. Consequently, the aim of this research was established as to “develop a framework to empower local governments to make cities resilient to
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