

## Chapter 3

# Exploratory Analysis in Information Systems Area: Using Grounded Theory Methodology

### ABSTRACT

*Providing an overview of grounded theory (GT)'s approaches to information systems (IS) research to IS researchers who are now interested in applying GT is the goal of the chapter. Also, research contributions about the application of GT in IS, qualitative perspectives on IS research, the types of GT approaches used in IS research, and the GT study guidelines in IS are presented in this chapter. Examples of GT in IS research, which provide a description of the methodology and references to more detailed presentations, are also included, especially from the field of software engineering and system development. It should be noted that using the GT methodology is time consuming and requires high accuracy, and it starts with a phenomenon that the researcher finds is not well explained by existing theories. In such research, data sampling should provide a broad, in-depth, and pluralist view of the phenomenon under study, and a literature review on the phenomenon should be provided.*

## **INTRODUCTION**

As a practical approach to professional research in every social context and context of current debate, information systems (IS) are increasingly expanding and adopting the application of socio-technical theories that are often adapted from other fields such as sociology. Also, due to the fact that events are studied quantitatively, qualitatively, or in combination in their natural environment, IS can be considered practical. According to Mkhomazi and Iyamu (2013), Grounded Theory (GT) can be used in IS studies in real-life contexts, particularly when the boundaries between the phenomenon and its contexts were not clear, nor were they thought to be clearly defined between the information and communications technology (ICT) practices and the organization.

For the Management Information System (MIS), which is a relatively new field and therefore welcomes the development of practical theories, the GT methodology can be very useful. Of course, instead of being used as a way to build theory by consistently comparing data samples until achieving the theoretical saturation, the GT approach has so far been used as a coding method in MIS. Perhaps the reason for this is the predominance of objectivist and the scientific method criteria for rigorous evaluation in MIS studies; the criteria that caused rejection of many GT studies, or post-rationalized in ways that make them appear to be based on extant theory. However, as a critical issue as the field widens to embrace constructivist, situated, and community-oriented theories of action, it is clear that the approach generates original theory in MIS research. Gasson (2009) believes that GT seems increasingly popular as a research approach in MIS since MIS journals become more open to qualitative and interpretive studies.

Since IS researchers often do not seek to use qualitative research methods in their studies, we are encouraged to conduct research in this field and, to this end, subjects like an overview of GT approaches in the IS research including application of GT in IS research, qualitative research perspective in IS, types of GT approaches used in IS research, guidelines for GT studies in IS, and examples of GT in IS research especially in software engineering are presented.

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