

# Chapter 16

## Soft Systems Methodology (SSM) as an Interdisciplinary Approach:

### Reflection on the Use of SSM in Adoption of Web 2.0 Applications in Omani Academic Libraries

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#### ABSTRACT

*Soft Systems Methodology (SSM) provides an inquiry process for taking a systemic view of a problem situation, incorporating elements of intervention, social and political analysis, and then understanding of the real-world problem situation. The holistic view embodied by SSM facilitated capture of the relationships, procedures, attitudes, culture and structure of each participating organizations through thematic analysis and developing rich pictures. Furthermore, the use of SSM enabled creation of homogeneous groups of actors and system owners to go through different intervention processes. This chapter aims mainly to introduce SSM as interdisciplinary approach that can be applied in complex situation and deal effectively with different viewpoints about the definition of the problem. In the current research, reflection on the use of SSM in adoption of Web 2.0 applications in Omani academic libraries is reported. It focuses on contributions of SSM in enhancing knowledge and practice of participants and researchers through different stages of SSM. This study approves that SSM is a methodology rather than a method. A set of tools and techniques can be adapted to investigate the problematical situation and deal with complexity and different perspectives of organizational people. In this research, SSM is described by participants as a learning process that not only define the problem but also improve the situation.*

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## INTRODUCTION

Soft Systems Methodology is one of the prominent research approaches for understanding issues that involve perceptions of human beings, using techniques of continuous interaction with them. SSM offers various techniques for investigating research problems. The development of this approach is based on viewing the system not as “stable and closed” but as “dynamic and open and always requiring improvement” in order to survive. Proponents of SSM research believe that human beings are an important component in all social issues (Checkland, 1981). People engaging with a research problem guide the development and change according to their needs and understanding. In addition, cultural, social, and economic considerations all interact with the issue under investigation to create a special dimension that makes every problem situation unique.

SSM is characterized by its flexibility and applicability in different fields. This method employs qualitative techniques in thinking and learning and uses special ways to generate information according to deductive methodologies that are based on understanding individuals’ attitudes and the differences in their opinions and expectations. This approach also views issues related to humans as being ill-structured, problematical and affected by the nature of humans and therefore impossible to define except by employing intervention methods that involve all key actors in the situation.

SSM, moreover, creates interdisciplinary relations among different disciplines. This has helped the approach to become widespread, with many SSM studies having been published in the last three decades. In addition, it has now gained popularity among researchers in the US and Canada, whereas in the first decade after its emergence (1981-1991) its use was restricted to Europe, in particular the UK.

Confirming this rise in popularity is the application of SSM in numerous studies to accomplish different goals. In commerce, for example, Paucar-Caceres, Hart Verges, and Sierra-Lozano (2015) used SSM to address the complexity of managing family companies in the Catalonia region in Spain. In medicine, electronic databases indicate that this approach has been used in researches focused on managing health institutions or in investigating how to raise people’s awareness of various health issues (Kish, Bunch & Xu, 2015). In Management and Strategic Sciences, this approach can be used in people management, analysis of the organizational culture (Wang, Liu & Mingers, 2015), making decisions (Li., Sun, Bi & Wang, 2014), and strategic planning (Diaz-Parra et al., 2014).

The various studies which have applied this approach have demonstrated that it offers special features that contribute to understanding research problems and how to address them. In the first phase, the approach helps in identifying different perspectives related to the issue under investigation. It has also been described as effective for identifying internal and external factors of the problematical situation. The study by Kurbanoglu (1991), for example, applied different techniques of SSM to assist in understanding the requirements of internal electronic network developments in academic libraries and categorize them according to human, financial, and technical requirements. The approach was also used to study the roles of key actors and their responsibilities. SSM, moreover, allows understanding of individuals’ behaviour and their perceptions in relation to different research issues that are mainly based on accomplishing institutions’ public interests or achieving individual goals such as performance development or gaining specific privileges (Brember, 1985). In other studies, Al Harrasi (2012) and Delbridge (2008) demonstrated that more than one technique of SSM can be applied to collect data in order to access full knowledge of the research issue. The techniques used include interviews, document analysis, note taking, and questionnaires.

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