

A Framework for Analysing End User Computing Environments
in Large Organizations

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Thesis Summary

Over the past five to six years, a strong trend is becoming evident in organizations, which relates to an increasing degree of ownership and direct use of computing resources by end users of computerised applications. This phenomenon has come to be widely known as end user computing, or EUC for short.

A number of studies have been carried out to understand the phenomenon. These discuss the following aspects:

- a. types of end users
- b. types of end user applications
- c. end user technologies
- d. organisational mechanisms for managing EUC
- e. broad strategies for managing EUC

In addition, EUC has been found to be a dynamically changing phenomenon. Its evolution has been described in term of changes in the above characteristics and the accompanying changes in management requirements of EUC, as more and more users discover increasingly sophisticated applications of the technology.

A clear conclusion arising out of the exiting studies is that EUC has to be consciously managed in order to ensure that the organisation benefits from it. It has also been widely accepted that an ill-managed EUC environment can, at best, result in a frustrating and ineffective computing environment and at worst, pose a serious threat to the very competitive position of an organisation. Consequently, a strong need is felt for meaningful and realistic guidelines, or a framework, for managing EUC.

Though several researchers have addressed the problem of understanding EUC, the research has so far not reached the stage of a well-defined theory or framework for conducting a detailed analysis of an EUC environment in a real-life situation.

In this study, a framework for analysing organisational EUC environments has been developed, which presents a systematic approach for conducting the required organisational analysis. It presents a detailed approach for:

- a. gaining a thorough understanding of the EUC environment
- b. identifying relevant characteristics of the external environment, which influence EUC environments
- c. gaining a clear understanding of the nature of impact of the external environment of the EUC environment.

The effort herein has been primarily aimed at developing a framework of general guidelines for analysing EUC environments in large organisations. It should be appropriately classified under the theory building category of research.

The framework represents a significant improvement over the present understanding of EUC environments due to its following characteristics.

It acknowledges the fact that EUC activity levels across an organisation are often non-uniform and that it is hence necessary to describe an organisation along two dimension, viz., the evolution of EUC and the diffusion of EUC, in order to carry out a fine-grained analysis of organisational state of EUC which integrates the two dimensions to present a snapshot description of an EUC environment.

It further takes into consideration the fact that EUC is an evolving phenomenon, by delineating the possible state transitions and identifying feasible paths for organisational evolution of EUC. It isolates three generic strategies for managing EUC based on certain common patterns in the paths.

It also acknowledges the possible influence of the organisational environment on the choice of the strategy adopted by an organisation. It delineates the organisational characteristics which influence EUC environments and further examines the nature of the influence.

Finally, this study discusses applicability of the framework for analysing EUC environments in large organisations and its implications for management of EUC. It demonstrates the applicability of the model by discussing evolution of the EUC within three organisations for which case studies have been developed.

In addition, a scheme for classifying and discussing the existing literature on EUC has been developed in this study. It is followed by an exhaustive survey of the available literature.