

Chapter 9

Evaluating the Learnability of ERP Software in Universities

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ABSTRACT

The technological innovation depends on learnability of the software used in terms of user interface design, program complexity of products that match the end user requirements, program complexity deals with commands used in the given ERP software, and training needs so that the ERP user can learn all required features and commands. Learnability signifies how quickly and comfortably a new user can begin efficient and error-free interaction. The main purpose of this chapter is to evaluate software learnability and performance of ERP software. Primary data was collected using survey through the use of questionnaires. Purposive sampling was used to collect data. The collected data focused on the software complexity, user interfaces analysis, ERP performance, challenges, efficiency, and training needs of ERP. Data analysis was done by inferential and descriptive statistics. The results indicated that there exists a positive and statistically significant relationship between the variables used.

INTRODUCTION

Over the past three decades, researchers in the software engineering field have considered learnability attribute in software applications. A number of learnability definitions have been introduced to provide a stronger foundation to the learnability concept in software engineering (Alcalá-Fdez & Alonso, 2016). ISO/IEC 9126 introduces a standard definition of learnability that is, “the capability of a software product to enable its users to learn how to use it” (Haaksma, *et al.*, 2018). Good learnability will lead to reasonable learning times, adequate productivity during the learning phase, and thus better satisfaction in new users. Improving learnability has a significant effect on the success of the ERP software, but improvement first requires identifying and understanding learnability issues. Learnability issues can only be identified by clearly defining, and then evaluating them in a systematic and consistent way (Haritos, 2017).

Successful organizations have today recognized the need for integrated systems that can improve their quality, client satisfaction and performance, Organizations can make this vision through enterprise resource planning. ERP is accounting oriented software, relational database based, multi-module but integrated, software system for identifying and planning the resource needs of an enterprise resource (Awa, 2018). ERP provides single user-interface for the entire organization to manage product planning, materials and parts purchasing, inventory control, distribution and logistics, scheduling, capacity utilization, order tracking, as well as planning for finance and human. (Singh, *et al.*, 2017). In addition, it allows automation and integration of business process by enabling data and information sharing to reach best practices in managing the business process (Wang, *et al.*, 2018). The metrics used to measure learnability are discussed as follows:

1. Memorability describes when users return to ERP after a period of not using it and how easily they can reestablish proficiency. If a user has spent some time away from ERP application and then returns to it, how quickly can they reestablish proficiency (Yuniarto, *et al.*, 2018). Command prompts have a low memorability factor this is because the user has to remember every command in order to navigate the application while simple graphical user interface can lead to high memorability for a common user because the user can see images and recall the flow of the system (Tulaskar, 2018)
2. User interface design refers to the visual layout of the elements that a user might interact within an ERP or technological product. This could be the control buttons of a radio or the visual layout of an ERP. User interface designs must not only be attractive to potential users but must also be functional and created with users in mind (Mahut, *et al.*, 2018)

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