

# Understanding the Relation between System Usability and End User Performance

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**Abstract**—Web applications have been spreading everywhere. However, this may have a number of drawbacks mostly related to usability issues. Therefore, the investigation of usability problems continues to improve these applications. In this study, usability metrics are used for web application interface evaluation. The relation between web application usability and end user performance is investigated. Many studies have evaluated interface usability in a number of sectors; however, studies on oil and gas web applications have been limited. In this study, two sessions with twelve participants were designed to obtain data directly from end users. The sessions were observation and user feedback sessions. The findings indicate a potential relation between system usability and end user performance in terms of effectiveness and satisfaction.

**Keywords**— *System usability, User Interface, User performance, Human Factors, Oil and Gas sector, Human Computer Interaction, Web applications, and Energy Informatics*