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Stakeholder Identification Overview and Challenges in Requirements Engineering Prospective

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Stakeholder Identification Overview and Challenges in Requirements Engineering Prospective

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Abstract—Stakeholder identification (SI) illustrates a critical part of the requirements elicitation activity. It helps software analysts gather accurate system requirements to ensure high quality and avoid system failure. Stakeholder identification considered one of the earliest stages of project development. The main problem related to project success and failure is identifying the real stakeholders and selecting the right one. The lack of stakeholder identification methodologies and the shortage of previous research in identifying the stakeholders for different systems, encourage the research to propose a guideline framework, assist analysts in building the convenient methodology for identifying real stakeholders. Stakeholders are defined based on different projects and the various services they provide. This difference leads to the fact that a particular and systematic technique must be used to identify stakeholders based on the project's types. The exploration of stakeholder identification matters and the guideline framework is a baseline for future research in requirements engineering.

Keywords—Stakeholder Identification, Stakeholder Identification Methodology, Requirements Engineering.

I. INTRODUCTION

Requirement Engineering (RE) is a group of activities which consists of gathering, analysis, specification, validation, and management to extract the right requirements [1] It is a fundamental process in software development life cycle [2]. Requirements are the basis of the system development; thus, RE illustrates the most significant aspect in the system development life cycle [3].

The fineness of requirements is considered one of the most critical and fundamental parts of software development success [4]. Requirements engineering is considered a highly complicated aspect due to its association with software development decisions and identification [5].

Requirements elicitation is the essential and challenging activity of RE; this considerable challenge is associated with requirements engineering process because the system depends entirely on the collected, analyzed and realized requirements at this stage [6] and [7]. Requirement Elicitation is known as the initial process of requirements engineering and crucially influential in software development. Gathering real and accurate requirements from the right stakeholders is the fundament of this process [8] and [9]. Requirements elicitation

is the capability to labor concurrently with stakeholders to collect the system requirements and achieve the objectives of the project to be developed [10].

Stakeholder Identifying is one of the substance processes of the elicitation phase. Stakeholders are determined based on their activities in the system [4]. Identifying stakeholders is challenging and requires considerable focusing [11]. This significant process requires a delicate study to categorize and classify the right project stakeholders. The system's effective development depends on successfully determining the requirements needed for this system [9]. The right requirements rely on accurate stakeholders' identification in the requirements engineering process [12]. Defining incorrect stakeholders is one of the main factors that lead to system failures [13]. Stakeholder identification is a process on which some important and influential activities depend on requirement prioritization [14] and [15]. Requirements engineering and elicitation approach still require further attention and research to identify the importance of identifying the right stakeholders in the early stage of the project.

The paper is structured as follows. The following section explores the related work of stakeholder identification. Section 3 clarifies the methodology applied in this study. In Section 4, the results of an analysis of the literature are discussed. The last part of the paper presents the study's limitations and prospective future research areas. Figure 1 illustrates the stakeholder identification as an essential part of requirements engineering and requirements elicitation processes.

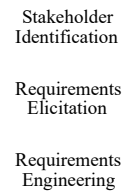


Fig 1. Stakeholder Identification Overview

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