

Systematical Alignment of Business Requirements and System Functions by Linking GQM+Strategies and SysML¹

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Abstract

Many businesses strive to align their business goals, strategies, and systems before and during system development as the studies of GORE and alignment of business/IT show. However, the level of success derived from their interrelationships may be ambiguous because the relationships between goals, strategies, and systems are often vague. As agile development becomes more prevalent, it is becoming more difficult to adjust a system to accommodate changing goals and strategies. By linking GQM+Strategies and SysML, we propose a method to systematically align business requirements and system functions. Then we evaluate this method from the viewpoint of traceability from business requirements to system functions and the solution to fill the gap between them. This proposed method not only helps maintain consistency from business requirements to system functions but also solves the gap between customers' needs and the developed system while simultaneously dealing with changing strategies and requirements.

Keywords: Alignment of business goals and system requirements, GQM+Strategies, link of models, SysML

1 Introduction

Businesses are becoming increasingly aware of the importance of software and IT in present and future business strategies [2]. Many businesses align their business goals and strategies to validate business processes, but these relationships are often vague. Thus, the level of success derived from their interrelationships may be ambiguous.

¹ This paper is an extension of our previous work, “Linking business strategies and system demands using GQM+Strategies and Systems Modeling Language,” EAIS 2019 [1]. Here, we add a supplemental explanation for model linkage and model deployment. In addition, explanations about problems in actual system development that our method can help solve and related works are expanded.

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