



# Evaluation of Ixitask Application Quality Based on ISO/IEC 25010:2023 in Marketing Division

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**Abstract.** The development of information and communication technology has brought significant changes in various industries, including internet service providers. One of the main benefits of this technological advancement is the information system, which functions to collect, process, store, and disseminate data into useful information. One company that utilizes the information system is XYZ, an Internet Service Provider (ISP) that provides cable TV and internet services. Since 2019, XYZ has used a web-based application, Ixitask, to improve the efficiency and effectiveness of the marketing division, which previously relied on manual processes. This study evaluates the quality of the Ixitask application using the international standard ISO/IEC 25010:2023, focusing on four characteristics: Functional Suitability, Reliability, Interaction Capability, and Security. This evaluation aims to determine whether the Ixitask application has met user expectations, especially in the marketing division, and to identify potential improvements. The research method used is descriptive quantitative through measuring the ISO/IEC 25010:2023 standard with validity and reliability tests using SPSS 29.0 software. The results of this study are expected to provide constructive recommendations to improve the quality and performance of the Ixitask application, supporting the operational marketing division at XYZ.

**Keywords:** Technological developments, information systems, ISO/IEC 25010:2023.

## 1 Introduction

The development of information and communication technology has had a significant impact on various sectors, including the Internet Service Provider (ISP) industry. This progress has encouraged companies to adapt and integrate information systems into their business operations, to improve work efficiency and effectiveness. An information system functions as a collection of interconnected hardware and software, which is used to collect, process, store, and distribute data into useful information. Currently, the use of information systems has expanded to various areas of life, such as education, government, health, and business, in response to the need for technology that can support human activities more efficiently and effectively.

One company that has utilized information systems to improve its operations is XYZ, an ISP company that provides cable TV and internet services. Along with the increasing

need to simplify and accelerate work processes, especially in the marketing division, XYZ adopted a web-based application called Ixitask in 2019. Previously, the marketing division relied on manual processes such as recording reports by hand, scheduling new customers with physical forms, and lack of visibility into the customer installation process in real time. The implementation of Ixitask is expected to help improve productivity, data accuracy, and real-time performance monitoring capabilities.

However, the use of this application requires a quality evaluation to ensure that the Ixitask application meets the company's expectations, especially in supporting the performance of the marketing division. In this study, the evaluation was conducted using the international standard ISO/IEC 25010:2023 which provides a framework for measuring software quality. The focus of the evaluation was directed at four main characteristics: Functional Suitability, Reliability, Interaction Capability, and Security, which are considered the most relevant to support the performance of the marketing division. This study aims to provide an overview of the quality of the Ixitask application and provide recommendations needed to improve the application, so that it can support the achievement of XYZ's business targets.

## **2 Literature Review**

### **2.1. Development of Technology and Information Systems**

The development of information and communication technology has driven major transformations in various aspects of life, including in the business and industrial sectors. This technology enables companies to operate more efficiently and responsively to evolving market needs [1]. Information systems are an important element in this development, because they play a role in collecting, processing, storing, and distributing information that supports decision-making in organizations [2]. The implementation of the right information system can help companies improve operational efficiency, reduce costs, and improve service quality.

### **2.2. The Role of Information Systems in Business**

Information systems play an important role in supporting business processes in various sectors. According to Stair and Reynolds [3], information systems enable integration between various functions in a company, such as marketing, finance, and operations, thereby increasing collaboration between divisions. In the context of an ISP company like XYZ, information systems are used to manage customer data, monitor services, and optimize the performance of the marketing division. The application of web-based technology is also an effective solution to facilitate access and increase the speed of decision making [4].

### **2.3. Software Quality Evaluation with ISO/IEC 25010:2023**

ISO/IEC 25010:2023 is an international standard that provides a framework for evaluating software quality. This standard is known as SQuARE (System and Software Quality Requirements and Evaluation) which includes the characteristics and subchar-

acteristics used to assess software quality [5]. ISO/IEC 25010:2023 has nine main characteristics, including functional suitability, reliability, security, and interaction capability. Software quality evaluation is essential to ensure that the software can meet user needs and support business operations optimally [6].

#### **2.4. Web-Based Applications in Business Operations**

Web-based applications have become a popular solution in supporting modern business operations due to their flexibility and accessibility. This application allows users to access services and information anytime and anywhere via the internet [6]. Ixitask is one example of a web-based application implemented by XYZ to support the performance of the marketing division. This application is designed to improve productivity, data accuracy, and time efficiency in various marketing tasks such as customer scheduling, installation tracking, and real-time performance evaluation.

#### **2.5. Quality Measurement with a Focus on the Marketing Division**

Software quality measurement in the context of the marketing division focuses on how the application supports specific tasks performed by the marketing team. According to previous research, functional suitability and reliability characteristics are very important to ensure that the application can perform the expected tasks without error. In addition, interaction capabilities and security are also key factors, as they relate to the ease of use of the application and the protection of sensitive customer data. This evaluation helps companies identify areas that need improvement and ensure that the application meets user expectations.

#### **2.6. The Importance of ISO/IEC 25010 Standard in Software Evaluation**

ISO/IEC 25010 provides guidance for companies to comprehensively assess software quality. The use of this standard is important to ensure that the software used can provide added value to the company's operations and meet business needs. In the context of XYZ, the evaluation of the quality of the Ixitask application using ISO/IEC 25010 focuses on four main characteristics, namely functional suitability, reliability, interaction capability, and security, which are considered most relevant to the marketing division.

This evaluation not only helps to ensure that the application meets global quality standards, but also provides recommendations for necessary improvements to support the achievement of the company's business targets.

### **3 Method**

#### **3.1. Research Design**

This study uses a quantitative descriptive method with a survey approach to evaluate the quality of the Ixitask web-based application in the marketing division of the XYZ

company. This method was chosen because it can provide a clear picture of user perceptions of the quality of the Ixitask application based on the international standard ISO/IEC 25010:2023. The quantitative approach is used to measure application quality objectively through the collection of numerical data that is analyzed statistically.

### **3.2. Research Subjects**

The subject of the study was employees of the marketing division of the XYZ company who routinely use the Ixitask application in carrying out their duties. The number of respondents taken in this study was 50 people who were selected using the purposive sampling method. The criteria for selecting respondents were employees who had used the Ixitask application for at least 6 months to provide an accurate assessment of the quality of the application.

### **3.3. Research Instrument**

The research instrument used was a questionnaire designed based on the characteristics of the ISO/IEC 25010:2023 standard. This questionnaire consists of 4 main characteristics: Functional Suitability, Reliability, Interaction Capability, and Security. Each characteristic is measured using a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) that evaluates aspects related to the function, stability, ease of use, and data protection of the Ixitask application.

### **3.4. Data Collection Procedure**

The data collection process was carried out by distributing questionnaires to selected respondents. The questionnaires were given directly or through an online platform to facilitate respondent access. Data collection lasted for two weeks with supervision to ensure the completeness and validity of the answers. The collected data was then processed using statistical software for validity and reliability tests.

### **3.5. Data Analysis Technique**

The data obtained were analyzed using descriptive statistical methods with the help of SPSS software version 29.0. Validity tests were used to ensure that the questions in the questionnaire were able to measure the expected variables, while reliability tests were carried out to assess the consistency of the measurement results. The score of each characteristic is calculated in percentage form to determine the level of application quality based on the respondent's assessment.

Furthermore, the evaluation results are compared with the standards expected by the company to determine whether the Ixitask application has met the needs of the marketing division or still needs improvement. Recommendations for improvement are given based on the results of the analysis and focus on improving characteristics that are considered less than optimal.

### **3.6. Quality Measurement with ISO/IEC 25010:2023**

Quality measurement is carried out by focusing on the four main characteristics of ISO/IEC 25010:2023:

- a. **Functional Suitability:** Measures the extent to which the application meets user needs and can support marketing tasks efficiently.
- b. **Reliability:** Assesses the consistency and stability of the application in operating without significant disruption or errors.
- c. **Interaction Capability:** Evaluates aspects of the ease of use of the application, including learning speed and effectiveness in data input.
- d. **Security:** Measures the level of protection of customer and employee data from unauthorized access and other potential security threats.

With this approach, this study is expected to provide a clear picture of the quality of the Ixitask application and recommendations for improvements needed to support the achievement of XYZ's corporate goals.

## 4 Results and Discussion

### 4.1. Results

This study evaluates the quality of the Ixitask application based on four main characteristics of ISO/IEC 25010:2023, namely Functional Suitability, Reliability, Interaction Capability, and Security. The results of the questionnaire evaluation filled out by 50 respondents from the marketing division of the XYZ company were analyzed using SPSS 29.0 software. The following are the results of each characteristic:

- a. **Functional Suitability:** The average score obtained was 4.2 on a scale of 5. This shows that most respondents feel that the Ixitask application has met their work needs, especially in terms of data input, report generation, and performance tracking. As many as 84% of respondents stated that this application is effective in supporting their marketing tasks. The questionnaire results are calculated using the equation formula:

$$Y = P/Q \times 100\% \quad (1)$$

$$Q = R \times S \times 5 \quad (2)$$

- b. **Reliability:** This characteristic received an average score of 4.0, indicating that the Ixitask application has a good level of stability and rarely experiences errors in its operational processes. However, there were several respondents (16%) who reported minor disruptions, such as the application being slow when processing large amounts of data.
- c. **Interaction Capability:** The average score obtained was 3.8, indicating that the application is quite easy for users to use. Several respondents stated that the Ixitask application interface is quite intuitive, but there was input regarding improving the visual appearance and ease of navigation that could facilitate the learning process for new users.
- d. **Security:** The security aspect of the application received an average score of 4.1. Respondents felt that this application already provides a adequate protection for customer and employee data. However, there were suggestions to improve the authentication system to ensure that only authorized parties can access important data.

## 4.2. Discussion

From the results of the study, in general the Ixitask application in the XYZ marketing division was considered to have quite good quality, especially in terms of functional suitability and reliability. The application implementation has successfully increased work efficiency, reduced manual errors, and accelerated the reporting and scheduling process.

- a. **Functional Suitability:** The Ixitask application can accommodate the main needs of the marketing division, such as customer data management and installation scheduling, which were previously done manually. This is in line with the company's expectations to increase employee work productivity.
- b. **Reliability:** Application stability is very important for daily operations, and the results show that Ixitask can operate with minimal disruption. However, several respondents suggested improvements to overcome the slowness when the application handles large data, which can be done through system performance optimization.
- c. **Interaction Capability:** Input related to the display and navigation shows that improving the user experience can provide added value for users. A more intuitive interface will speed up the learning process for new users, thus increasing work effectiveness.
- d. **Security:** Data protection is a priority in web-based applications, and although the security score is already high, improving the authentication system will further guarantee data privacy and security. Respondents suggested the use of two-factor authentication or data encryption to prevent unauthorized access.

Overall, the results of this study indicate that the Ixitask application meets most of the user expectations and has the potential to be further optimized. The recommendations generated based on this evaluation are expected to be a reference for the XYZ company in improving application performance so that it is in accordance with the ISO/IEC 25010:2023 quality standard. Continuous quality evaluation and response to user input will be essential to maintain the relevance and effectiveness of the application in the long term.

## 5 Conclusion and Suggestions

### 5.1. Conclusion

Based on the evaluation results of the Ixitask application at XYZ using the ISO/IEC 25010:2023 standard, it can be concluded that:

- a. **Functional Suitability:** The Ixitask application has met the needs of the marketing division well, especially in terms of data management, scheduling, and reporting, with an average score of 4.2 on a scale of 5. This shows that the application is able to support marketing tasks and increase employee productivity.
- b. **Reliability:** The application shows stable performance and rarely experiences errors in its operations, with an average score of 4.0. However, there is potential for improvement in handling large amounts of data to reduce delays.

- c. **Interaction Capability:** The application has a n easy-to-use interface, but there is still room for improvement in terms of visual appearance and navigation, especially for new users. An average score of 3.8 indicates that improvements in user experience are still needed.
- d. **Security:** The Ixitask application already provides a sufficient level of protection for important data, with an average score of 4.1. However, improvements to the security system, such as two-factor authentication, are expected to provide better protection for sensitive data.

Overall, the Ixitask application is to be good quality and can support the marketing division's operations at XYZ. This evaluation shows that the application contributes positively to work effectiveness and efficiency, although there are several aspects that still need to be improved.

## 5.2. Suggestions

**Improving Reliability and Performance:** To overcome slowness when processing large amounts of data, it is recommended to optimize the system, such as increasing server capacity or updating software, so that application performance remains stable.

- a. **User Interface (UI/UX) Development:** Improving the visual appearance and navigation of the application to be more intuitive can help new users adapt more quickly. The company is expected to consider user feedback for further development.
- b. **Security Improvement:** Implementing additional security features, such as two-factor authentication or data encryption, can strengthen protection for sensitive data and prevent unauthorized access, according to the needs of users in the marketing division.
- c. **User Training:** Providing regular training for employees on application usage and security procedures can help maximize the utilization of the Ixitask application, while reducing the risk of errors that may occur during operations.
- d. **Periodic Evaluation:** Conducting periodic evaluations of the application quality using the same method or adopting other relevant methods will help the company to continue to improve the application according to the development of user needs and expectations.

These suggestions are expected to be a reference for XYZ in improving the quality of the Ixitask application so that it can provide optimal support for employees, especially in the marketing division, and meet the expected quality standards.

**Acknowledgements.** We would like to express our deepest gratitude to all parties who have contributed to this research. First, we would like to thank the management of XYZ who have given permission and full support during the research process. We would also like to thank all employees of the marketing division who have taken the time to fill out the questionnaire and provide valuable input, which greatly assisted in the evaluation of the Ixitask application. We would also like to thank the lecturers and colleagues of Widyatama University who have provided support and constructive suggestions in the preparation of this paper. Finally, we would like to thank our family and friends who have always provided moral support and motivation during this research. Hopefully the results of this research can provide benefits for the development of information systems at XYZ and become a reference for further research.

**Disclosure of Interest.** This study aims to evaluate the quality of the Ixitask application used by the marketing division at XYZ, using the international standard ISO/IEC 25010:2023. This study has no financial or commercial interests that could affect the results and conclusions obtained. All researchers declare that they have no personal or professional relationships that could affect the objectivity of this study. The data used in this study were taken from reliable sources and collected ethically, with due regard for the privacy and confidentiality of respondents' information. We are committed to maintaining academic and professional integrity at every stage of this research. The results of the study are expected to provide a positive contribution to the development of the Ixitask application and support the improvement of the performance of the marketing division at XYZ, as well as provide useful recommendations for further research in the field of information systems.

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