

IMPACT OF QUALITY FACTORS ON ACCOUNTING INFORMATION SYSTEMS IN SEIYUN CITY COMPANIES

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Abstract: Yemen is currently one of the poorest countries in the world, as indicated by a new report of the United Nations Relief Program, this will be negatively affecting all aspects of life in Yemen, including the aspect of information systems. Evaluating the quality of accounting information systems is very important because of the significant impact on improving the performance of these systems, hence the importance of this study, which evaluates the level of quality of accounting information systems and develops appropriate solutions to solve the problem of low .current study relied on dimensions and criteria taken from The DeLone and McLean Model of Information Systems Success by studying five main factors to measure the quality of information systems ease of use of the system, reliability of the system, flexibility of the system, a realization of user requirements, and user satisfaction with the system. To achieve the objectives of the study, a questionnaire was designed. After analyzing the data the results showed that accounting information systems used in companies in Seiyun city are characterized by ease of use and reliability with a high level of quality, and characterized by flexibility with a middle level, Among the most important recommendations recommended by the study were the following: The necessity of paying attention to quality and raising its level in those systems through the development of specifications, continuous updating, and troubleshooting defects and repairing them. As well as choosing systems through professional consultants' specialists in information technology.

Keywords: accounting information systems, information System, Quality.

I. INTRODUCTION

The use of electronic information systems has spread at present in most Yemeni companies and in the city of Seiyun in particular, and these companies have adopted the accounting information system as an essential part of their work, because these systems are characterized by speed and accuracy in processing data to shorten time and effort, and because they give accurate information in the business process the establishment so that these facilities achieve the goals for which they were established. The importance of information systems for organizations is that they provide facilities with accurate information at the right time and through which appropriate decisions are taken efficiently. From this point of view, business computerization is one of the most important aspects of employing technology in various organizations work using information systems available in the market or by building systems that belong to the company, organization, and enterprise to benefit from the available information and communication technologies in achieving the objectives of the companies. For example, efficiency and effectiveness, improving performance and quality, enhancing their competitiveness and ensuring their continuity in providing services in the required manner to their customers.

Information systems are considered academic studies of systems, with limited reference to information and integrated networks of hardware and software used by people and companies, in order to gather data with the possibility of filtering it, subjecting it to processing, compositing it, and then disseminating it. The focus is on an information system that has infinite boundaries, users, processors, storage, inputs, outputs, and network connections [1].

Typically the idea of success the information systems is the degree involving organizational performance caused by the application of information systems. The thought of information systems success has recently been widely accepted while an important requirement for evaluating organizational performance due to being the ability to use information systems [2].

Organizations wish to ensure the success of their investments in information systems, whether the economy is booming or collapsing, as managers invest for a job opportunity or a need, so it is important to determine whether these systems meet the needs and goals of the organization or not [3].

In order for organizations to improve performance, flexibility, and competitiveness, they must rely on information systems, but there are challenges faced by these organizations in how to evaluate information systems with real effectiveness and high efficiency [4].

To ensure a successful outcome of the information systems evaluation process, there are researchers who have developed a set of concepts and methods that could be applied to the assessment process, in order to better envision the development of these methods and their contribution to the assessment of information systems over time [5].

Evaluating the success of information systems is very important for organizations; therefore, they devote most of their attention to knowing the benefits and returns of their investments in the aspect of information systems and information technology [6].

It has been noted that in Yemen, systems have been completed and implemented without evaluation and measurement of success [7], as research and knowledge are very limited in such a context [8]. Through these reviews, it becomes clear to us that the evaluation of information systems will encourage the modern research and different idea to be presented to businessmen and information systems specialists, the Information System assessment will generate a mix of ideas, models, and case study an encouraging and useful [9].

Information Systems Success Model for (DeLone & McLean) first appeared in 1992, and is a research framework to measure information systems success. It consists of six main and interrelated dimensions, and these dimensions aim for the success of the information system, they are system quality, information quality, use, user satisfaction, individual impacts, and organizational impacts. In order to categorize many measures of information success, the model provided a scheme and suggested a temporal and causal correlation between these dimensions [10]. This model contributed to the success of e-commerce systems as it provided metrics for multi-dimensional structures and created a developed research model for the causal relationship between structures [11] [12].

II. CONTRIBUTION

This study contributes to the development of clear scenarios through which the study and evaluation quality of accounting information systems in Seiyun city, and their use by accountants, owners of companies, institutions, and businessperson. In addition, based on a proposed conceptual model and extracted results for evaluating the quality of accounting information systems helped raise awareness among companies to evaluate accounting information systems to achieve their objectives. Effectively evaluating accounting information systems helped measure the development of these systems in Seiyun city and provided a model that could be used as a standard for evaluating accounting information systems.

III. LITERATURE REVIEW

Currently, the majority of Yemeni companies, specifically those in the city of Seiyun, use accounting information systems. These businesses have made accounting information systems an integral part of their operations because these systems are distinguished by speed and accuracy in data processing to reduce time and effort, and because they provide accurate information in the business process the establishment so that these facilities achieve the goals. Accounting information systems have evolved and specialized programming companies have emerged that use modern technology for computer software such as the system (EbdaaSoft, YemenSoft, Al-Ameen, Al-Arabi, Al-Raed, etc.). Therefore, technology specialists and information systems engineers, and must evaluate these programs and systems to be known did these systems fulfil the needs of the users? Do these systems have the necessary quality that must be available in order to contribute to achieving

the goals of using these systems in these companies? Also, are quality standards available in these systems? The importance of information systems for organizations is that they provide facilities with accurate information at the right time and through which appropriate decisions are taken efficiently. From this point of view, business computerization is one of the most important aspects of employing technology in various organizations work using information systems available in the market or by building systems that belong to the company, organization, and enterprise to benefit from the available information and communication technologies in achieving the objectives of the companies. For example, efficiency and effectiveness, improving performance and quality, enhancing their competitiveness and ensuring their continuity in providing services in the required manner to their customers achieving their strategic objectives and keeping pace with the requirement of the times and modern technology For these reasons, organizations have been interested in the systems responsible for the production, processing, and storage of information. Evaluating the quality of accounting information systems is very important because of the significant impact on improving the performance of these systems, hence the importance of this study, which evaluates the level of quality of accounting information systems and develops appropriate solutions to solve the problem of low level of quality in those systems.

IV. METHODOLOGY

The research design, data analysis methods, data collection method, research tools, research community, research limits, sampling and procedures, and the data analysis technique used to reach the results were discussed. The quantitative approach was used in this research to assess accounting information systems. The quantitative method aimed to provide a more thorough understanding of the phenomenon. Data can be gathered from various users using the quantitative approach to get more information. Numerous users (employees) are involved in the evaluation of accounting information systems, therefore data collection must be done based on the audience number and the type of data that has to be gathered.

This study collected the views of users of accounting information systems in companies located in the city of Seiyun. Accounting information systems are used by most companies. In this study, Descriptive and inferential statistics were used in the data analysis. This study aimed to assess the quality of accounting information systems based on the model of DeLone and McLean (2016).

Because there are so many employees who work for companies and use accounting information systems to collect data for analysis, the study based on the survey method. Thus, accurate data collection, sampling, and analysis were performed. The Statistical Package for the Social Sciences (SPSS) tool was used in this study to produce descriptive statistics where In order to test the study's hypothesis; the researcher used the arithmetic mean, standard deviation, and multiple linear regression analysis (Multiple Regression).

V. SAMPLING AND ANALYSIS

Data collection tool for this study was the survey questionnaire that was distributed to the study sample in order to help collect information to evaluate the quality of computerized accounting information systems for companies in Seiyun city, where the questionnaire was divided into the following: the first section of the questionnaire was devoted to the personal information of the respondents, related to academic qualifications, scientific specialization, years of experience in dealing with the computerized accounting information system used in the enterprise, in addition to information related to the enterprise under study in terms of the size of that enterprise (based on how many people work there) and the type of activity it engages in that enterprise and the type of software or computerized accounting information system used in that enterprise, the second section of the questionnaire was devoted to identifying the quality characteristics available in computerized accounting information systems, which consist of five sub-dimensions, namely (ease of use, system flexibility, system reliability, realization of user requirement and finally user satisfaction), the third and final section of the questionnaire was devoted to identifying the extent to which users of computerized accounting information systems are satisfied with these systems.

A total response for each item was acquired and tallied after collecting all the respondents' completed questionnaires. The analysis of each question answered by each respondent was done, and each question's mean was weighted to reflect it in order to apply the Likert scale for interpretation. The SPSS method was then used to compute these data; SPSS was utilized for this thesis since it is specifically designed for analysing statistical data and so offers a huge choice of methods, graphs, and charts and is also widely used and approved.

VI. RESULTS

By referring to the results of the first part of the questionnaire, that define the characteristics of the respondents in terms of their qualifications, specialization, and years of experience in dealing with the computerized accounting information system. The data tells us that the majority of the sample who use computerized accounting information systems is 78.98% and their number is 109 employees who have a bachelor's degree, and 60.14 %, of the sample, are specialists in the field of accounting, 5.79 % are specialists in business administration, the percentage of specialists in finance and banking 14.49%, and the percentage of specialists in information technology 13.76%, This result indicates that the companies were keen to appoint accounting specialists to deal with computerized accounting information system, as they are qualified for this work, also the results of the respondents' experience in dealing with the computerized accounting information system, indicate that 53.62 % of respondents have dealt with these systems for less than 5 years, and this indicates an increase in the percentage of those who use these systems in their work in significantly late years, and also note that 25.36 %, or one-third of the companies, have dealt with these systems from 5 years to less than 10 years, and this indicates an increase in the spread of these systems in the past 10 years, also shows that 11.59 % have used these systems for more than 15 years, and this indicates the gradual use of computerized accounting information systems in the past years, the results of the questionnaire indicated, that there are some accounting programs in the city of Seiyun, which numbered 13 systems used in various companies, as two systems ranked first, namely Yemen Soft and Ebdaa Soft by 68.1 %, meaning 34.05 % for each of them, meaning that half of the companies used these two systems, and Al-Ameen system came in second place with a rate of 13.04 %, and the rest of the companies varied in the use of other systems, and there are two companies that use their own systems. the study sample included items from various industrial companies in the city of Seiyun, where the buying and selling activity (commercial activity) occupied the highest percentage of those who use computerized accounting information systems, reaching a rate of about 80.43 % and service facility ranked second by 10.14 %, the rest of the companies varied among other activities. The companies varied in terms of size (according to the number of employees in it), between medium and small, with the percentage of small companies being 40.57 %, in which the number of employees is (4-9 people), while the proportion of companies was medium-size 31.15 %, in which the number of employees is (10-50 people), and the large companies in which the number of employees is (more than 50 people) has reached 13.76 %. From this result, conclude that the commercial activity in Seiyun City is characterized by the presence of small and medium-sized companies compared to large companies. For all the five dimensions of computerized accounting systems quality, system reliability is achieved in the first rank with an arithmetic mean of 4.05 and a standard deviation of 0.08, then followed in the second rank by the characteristic of ease of learning, with an arithmetic mean of 3.91 and a standard deviation of 0.13, while ease of use characteristic came in the third rank with arithmetic mean 3.73 and standard deviation 0.27, then system flexibility also got on the arithmetic mean 3.68 and standard deviation 0.08, and finally, the realization of user requirement feature came in the last order with arithmetic mean 3.59 and a standard deviation 0.07, these results indicate that all elements of quality are available in computerized accounting information systems, but at different levels. In general, the five components as a whole got arithmetic mean of 3.79 and a standard deviation of 0.08, which indicates the availability of system quality elements in the computerized accounting information systems used in the companies of Seiyun city, at a medium level. For regression analysis, the R-value denotes the degree of correlation between constructs; in this case, a value of 0.765 indicates a high level of prediction in this analysis. In addition, the R-square value, which is the percentage of the variance in the dependent variable that could be explained by the independent variables, the independent variables account for 76.5 % of the variability in the project success variable ($R^2 = 76.5$), while the remaining 23.5 % of the dependent constructs are inexplicable. This means that the model explains 76.5 % of the variance in response data around its mean. Value of R shows a substantial correlation of $R = .682$; $R \text{ Square} = .765$; $F(7.882) = 91.724$; $P > 0.001$ between five predictor variables and the dependent variable which is the Quality of Companies. The R-square value determines the portion of the variance in the Quality of Companies. The F change in the model summary also shows the values of 91.724 and with this; it shows that independent variables: ease of use, system flexibility, system reliability, the realization of user requirement, and finally user satisfaction are significantly correlated to the quality company with coefficient $\alpha < .001$.

The result also indicated that System Flexibility has the strongest distinctive contribution to the Quality of Companies with a Beta value of ($B = .452$) followed by Ease of Use with a Beta value of ($B = .346$). The System Reliability had the least contribution to customer decision-making with a Beta value of ($B = -.155$). The estimated value that emerges from a multiple regression equation when it is applied to independent variables that have been standardized and variances lesser than one is known as a beta coefficient.

VII. CONCLUSION

The accounting information systems used in Seiyun City companies were characterized by ease of use with a high level of quality, but there is some deficiency in the part related to (the existence of a manual for using the system). Although computerized accounting information systems used in Seiyun city companies are characterized by flexibility at an average level, there are some shortcomings in the part related to (system scalability to make some adjustments to it) and the part related to (The ability of the system to integrate with other systems in the enterprise). System reliability was considered one of the most important elements of quality in accounting information systems, where the study showed that the computerized accounting information systems in Seiyun companies are characterized by a high level of reliability. Users of computerized accounting information systems used in companies in Seiyun City are satisfied with these systems. Generally, the computerized accounting information systems used in Seiyun companies are characterized by the availability of quality elements at an average level.

According to the results of the study, the following recommendations could be summarized:

- It is necessary for the producers of accounting information systems to get more attention to quality through the development of quality specifications and characteristics, the continuous updating of the systems, and the treatment of any defects that may appear in the system, such as those that emerged in the results of the study regarding the existence of a manual for using the system, the ability of the system to integrate with other systems, and the ability of the system to make some modifications to it.
- Companies should choose accounting information systems that are characterized by quality through consulting specialists in this aspect.
- Suggest establishing a committee of a group of experts in the field of information technology, accounting, and management, to evaluate the existing accounting information systems in the labour market, it shall have the authority to issue the necessary permits for the use of these systems, in accordance with internationally recognized standards and conditions.
- Holding seminars from time to time, to meet the proposed committee with the producers and users of the system, to overcome the difficulties and problems that face everyone, for what would develop accounting information systems.
- Further studies were required to evaluate accounting information systems in order to identify the strengths and highlight the weaknesses as the impact of accounting information systems quality on Companies' performance and profit.

REFERENCES

- [1] Y. Al Moaiad, Z. Abu Bakar and N. A. Al-Sammaraie, "Prioritization tool of Cloud Computing service provider based on user requirement," 2016 IEEE Conference on Open Systems (ICOS), Langkawi, Malaysia, 2016, pp. 36-41, doi: 10.1109/ICOS.2016.7881985.
- [2] Wibowo, S. and Grandhi, S. (2017), "Benchmarking knowledge management practices in small and medium companies: A fuzzy multicriteria group decision-making approach", *Benchmarking: An International Journal*, Vol. 24 No. 5, pp. 1215-1233. <https://doi.org/10.1108/BIJ-01-2016-0013>.
- [3] Martono, S., Mukhibad, H., Anisykurillillah, I., & Nurkhin, A. (2020). Evaluation of acceptance of information systems in state university with theory of planned behavior and theory of acceptance model approaches. *Management Science Letters*, 10(14), 3225-3234.
- [4] DeLone, W. H., & McLean, E. R. (2016). Information systems success measurement. *Foundations and Trends® in Information Systems*, 2(1), 1-116.
- [5] Gopakumar, K., & Suresh, M. (2020, October). Applications of marketing flexibility in manufacturing and service sectors. In *IOP Conference Series: Materials Science and Engineering* (Vol. 954, No. 1, p. 012003). IOP Publishing.
- [6] Spoth, K. (2020). *Information Systems Evaluation: A Conceptual Framework*.
- [7] Mkinga, M., & Mandari, H. (2020). Evaluating students information system success using DeLone and McLean's model: Student's perspective. *Journal of International Technology and Information Management*, 29(2), 24-42.

- [8] Fadhel, I. E. I., bin Syed Idrus, S. Z., Ibrahim, A. A. E. A., Omar, M., Baheshwan, F., Albzeirat, M. K., & Albzeirat, S. K. (2018, June). Measuring system success in new context by adapting DM 2003 framework with the external factor management support. In *Journal of Physics: Conference Series* (Vol. 1019, No. 1, p. 012003). IOP Publishing.
- [9] Al-Hattami, H. M., & Kabra, J. D. (2022). The influence of accounting information system on management control effectiveness: The perspective of SMEs in Yemen. *Information Development*, 02666669221087184.
- [10] Fadhel, I. E. I. (2015). An evaluation of information system success based on students' perspective: The case of Hadramount University (Doctoral dissertation, Universiti Utara Malaysia).
- [11] Al-Kofahi, M. K., Hassan, H., Mohamad, R., Intan, T. P., & Com, M. (2020). Information systems success model: A review of literature. *International Journal of Innovation, Creativity and Change*, 12.
- [12] Ladan Shagari, S., Abdullah, A., & Mat Saat, R. (2017). Accounting information systems effectiveness: Evidence from the Nigerian banking sector. *Interdisciplinary Journal of Information, Knowledge, and Management*, 12, 309-335.
- [13] Fayez, A.N., Ghabban, F. M., Ameerbakhsh, O. (2021). Advantages and Challenges of Smart Learning in Higher Education Institutions in Saudi Arabia, *Creative Education*, Vol.12, 5.