International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 06, 2020
ISSN: 1475-7192

THE EFFECT OF USING THE ACCOUNTING INFORMATION SYSTEM IN IMPROVING THE ORGANIZATION'S PERFORMANCE

*[1]Idris S. Mohamad, [2] Dzoar J. Bakr

ABSTRACT--*This paper evaluates the importance of accounting information systems (AIS) and information technology in accounting practices. Previous findings revealed that many firms are losing vast amounts of money on processing accounting information. Additionally, the management of these companies does not have access to real-time financial information for decision making and financial forecasting. There is a need, therefore, to assess the importance of AIS in the accounting department of a firm. This study employed qualitative and quantitative research methods to collect and analyze research data. In total, 19 participants drawn from 7 companies within the Zakho district met the eligibility criteria, which required that participants be owners or employees of the selected companies. The results showed that many companies within the Zakho district have deployed AIS and are carrying out accounting practices faster. There is proper planning and coordination of financial information and thus efficiency in decision making.*

Keywords--*Accounting Information Systems, Information Systems, Decision Making, Financial Information, Organizational Performance*

I. INTRODUCTION

The Middle East, particularly Iraq, has witnessed several changes during the last thirty years following attacks by the US. The changes include economic stagnation, which affected various sectors of the Iraqi economy (Mohsen, 2016). The goal of every business is to improve its profit margin through market expansion or increased production. In order to achieve this goal, every venture must respond swiftly to changes, including information technology. Information technology plays a vital position in enhancing the delivery of services globally (Tilahun, 2019). It is challenging for a business to survive without embracing the rapid changes in technology.

Further, many researchers have shown interest in the concept of information systems (IS) due to its effectiveness.

The findings of Mithas and Rust (2016) revealed that there is a strong relationship between the deployment of an efficient information technology system and the performance of the organization. The IS portfolio comprises of other subsystems such as Management Information Systems (MIS) and the Accounting Information Systems (AIS). This study investigates the extent and whether there is a relationship between the efficiency of accounting

*[1] *Dept. of Accounting, College of Administration and Economics, University of Duhok, Kurdistan Region – Iraq (idris_acc@uod.ac)*

[2] *Dept. of Accounting, College of Administration and Economics, University of Duhok, Kurdistan Region – Iraq*

Received: 22 Feb 2020 | Revised: 13 Mar 2020 | Accepted: 05 Apr 2020

information and the performance of an organization. This study aims to determine the impact of accounting information systems on the effectiveness of the companies' activities.

The primary aims of this research to evaluate the role of accounting information and its potential contribution to the performance of an organization and to determine the effectiveness of accounting information in the decision making of managers on organizational performance. Further, this study aims at addressing the following research questions:

i. Does an organization's performance, which uses systematic accounting information, have higher efficiency?

ii. How and to what extent does the implementation of accounting information in a company influence corporate performance?

The findings of this study will seek to address the following hypotheses:

H1: There is a strong positive relationship between accounting information and organizational performance

H2: There is a weak positive relationship between the financial performance of the organization and tools of accounting information

H3: There is a negative relationship between accounting information and the organization's performance

This research provides a valuable opportunity to understand in detail the benefits of financial information in improving the performance of an organization. The results and recommendations of this research contribute to the available accounting information on financial statements that are effective in the performance of a firm. This research also seeks to find the missing link between accounting information and the performance of an organization.

II. LITERATURE REVIEW

Accounting Information (AI)

There is an increasing need for information technology in the business world. The recommendations of Marchewka (2016) revealed that organizations should adopt effective accounting practices with the entry of modern technology. The interdisciplinary nature of Accounting Information forms a merger between accounting and information systems, which are independent fields. Information technology plays a vital position in enhancing the delivery of services globally (Ahmad and Al-Shbiel, 2019). The findings of these studies suggest that smaller organizations still have inefficient information management and rely on ad hoc decision-making despite having adopted the use of Accounting Information.

However, the inefficiency of information management among small ventures is caused by the initial objectives of IT adoption. Further, Tilahun (2019) reported that AIS Technology is aimed at improving the traditional methods of accounting which have become redundant. Ideally, an accounting system should process data and transactions and avail processed information to users to assist in controlling, planning, and managing their organizations. The AIS plays a central role in venture control and adequate planning by providing relevant and reliable information. There is enough evidence to supporting financial accounting as the primary source of information for decision making.

Managers and other stakeholders can use this information to make decisions and plan the overall activities of the organization. According to Kareem et al. (2019), AIS technology is not only used to produce financial information but also enhance accounting practices. There is a need to note that financial data is also required by external users, including the suppliers, investors, and credit organizations (Ali et al., 2016). Management accounting, which refers to the provision of managers with real-time information to make informed decisions, also requires information processed through the AIS. The aspects of financial, information, and management accounting are derived from the same sources of data.

Further, Harash (2017) noted that AIS also provides information for budgetary purposes, forecasting, and general planning. Information that is gathered, collated, and presented uniquely to the management defines management accounting. The exclusive presentation of data in this format is to enable managers to select information of importance. Financial accounting requires that information is presented in line with the guidelines of a regulator. The evolution of AS is, however, changing the perception of managers due to its impending benefits.

Accounting Information Systems (AIS)

According to (Tilahun, 2019), the processing of financial information typically involves complex calculations and figures. Due to the complicated nature of financial activities, modern technology, which is also efficient, is required (Adenike & Adewoye, 2018). The purpose of information technology (IT) is to reduce the work of a user by providing practical and efficient methods of storing, manipulating, and retrieving this data. In the opinions of Al-Dmour and Al-Dmour (2018), the IT system usually submits this kind of data on time and in an easy to follow format. Due to the efficiency of this approach, the user experiences greater flexibility in dealing with urgent changes by responding quickly. The deployment of AIS to ease the complex accounting procedures provides an integrated approach to handling accounting information and addressing the administrative role of in various aspects such as:

Data Processing Systems (DPS)

Almaliki et al. (2019) explained that the primary use of the DPS is to provide computer-aided operations for various departments within an organization. Some of these areas include production units, revenue, finance, and expenses departments. This approach eliminates the effort of workers from complex activities, including data processing. Technologists are continuously working on ways to improve data processing to benefits organizations. Further, Al-Dmour and Al-Dmour (2018) explicate that technologists are inventing various forms of technology that will ease the connection between collecting, encoding, and analyzing data quickly.

Decision Support Systems (DSS) and Expert Systems (ES)

The primary purpose of the DSS is to provide various models of decision making such as queues, linear programming, and critical paths to provide reliable information that is suitable for decision making. Harash (2017) argues that an AIS technology can be fused with artificial intelligence resulting in expert systems. Artificial Intelligence is widely used in various fields, including mathematics, engineering, and would be an essential addition to business management. Through AI, the management of an organization can receive solutions to various challenges regarding financial issues. Similar to the findings of Ahmad and Al-Shbiel (2019), AIS technology

develops solutions by analyzing information that has already been processed. Due to its ability to change the way of thinking, by providing expert solutions, this interface can also generate creative ideas and solutions which are viable to support decision making. Expert systems provide solutions that are beyond ordinary human knowledge and abilities.

Organizational Performance

The word "perform" refers to the ability to accomplish a task according to specific standards of accuracy, cost, or speed. According to Almaliki et al. (2019), the performance of an organization is evaluated by studying the initial projected cost, accountability, and efficiency of various activities within a specific time. The quality of the results achieved during a specific time frame can also be used to define the performance of an organization. The ability to comply with the projected outcomes and fulfil set goals also defines performance. On the other hand, Adenike and Adewoye (2018) noted that financial performance is the extent to which the organization meets its set goals. In other definitions, financial performance is the ability to meet the monetary objectives and financial health in comparison to other firms within the same industry or other sectors.

Financial Performance Analysis

Ideally, a financial statement is an organized presentation of processed data in a logical and conceptual framework that is consistent with the provisions of accounting. Similarly, Ali et al. (2016) also argued that a financial statement is the critical component of analysis and evaluation. The primary purpose of financial statements such as balance sheet is to display the position of an organization at a given time while income statements show various financial activities within a specific time. The balance sheet and income statements are the most used financial statements (Adenike & Adewoye, 2018).

A balance sheet is exclusive and describes the financial state of an organization within a specific time. In other words, the balance sheet contains the total assets resulting from a combination of the owner's equity and liabilities in total. On the other hand, the income statement, popularly referred to as the profit loss statement contains the activities of the firm over a particular time frame. Al-Dmour and Al-Dmour (2018) stated that the revenue and expenses of the organization and the net or profits over the same period constitute financial statements. In as much as financial statements do not provide exclusive information on the financial situation of the firm, the information displayed is enough to make any necessary decision making.

Financial statements provide essential details such as profit and financial viability of the organization, which are essential in decision making (Almaliki et al., 2019). An ideal financial analysis is not complete if the income statements and balance sheets are missing. There is a need to note that a complete financial analysis diagnoses the financial situation of a company to determine profitability and financial soundness. Financial statements also offer clear insights into the financial position and performance of the organization within a specific time (Kareem et al., 2019).

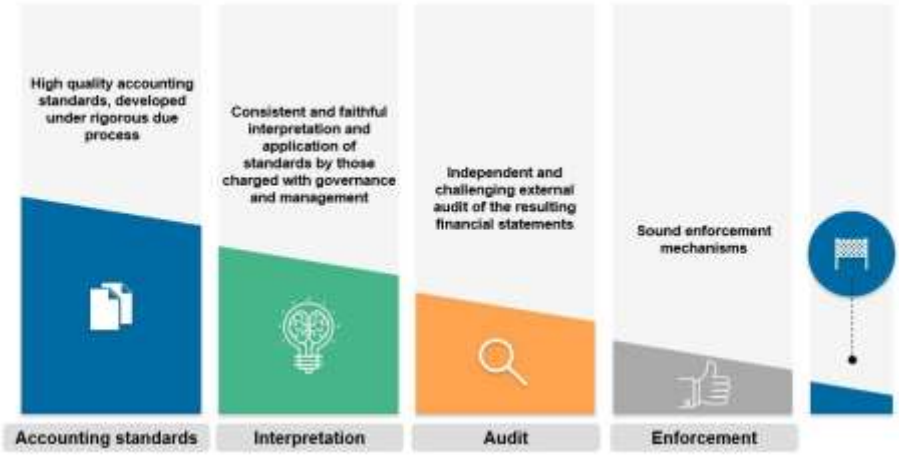
Standards of Financial Performance

Ali et al. (2016) noted that the performance of an organization could be evaluated when compared to those of other organizations. There are various criteria for measuring the performance of an organization, such as the

standard sectorial performance, target standards, historical standards, and absolute standards, among other parameters. The industrial standards of performance refer to the comparison of companies within the same niche. Similarly, Tilahun (2019) stated that apart from bank financial ratios, the size and nature of services offered can also be used to compare the performance of two organizations. Industrial standards are essential in financial analysis because many organizations are interested in the principle of diversification to provide services.

Organizations that offer a wider variety of services can be challenging to analyze and determine their industrial performance. Historical standards, on the other hand, evaluate the performance of the organization at present against the outcomes of previous years. Historical standards are measured by an assessment of the strengths and weaknesses of an organization in the past and at present (Mithas & Rust, 2016). For instance, to evaluate the corporate performance, analysts study the performance of the organization during the tenure of individual management and the outcomes during the subsequent takeover to determine whether the company is improving or not. Conclusively, Ahmad, and Al-Shbiel (2019) pointed out that this historical perspective cannot be used to compare two organizations.

For instance, companies that have adopted new incentives or developments in technology cannot be compared to those that have failed to embrace new changes. Further, organizations that have diversified and developed new services cannot be accurately compared to those with limited services. Al-Dmour and Al-Dmour (2018) further added that absolute standards are recognized globally as a method of comparing the performance of organizations. This approach depends on the inherent ownership of a property, which can be shared with individual companies at the same time. Every organization is tasked with ensuring that each organization improves the shared property. The absolute measure of financial performance is less adopted due to its volatility of realism. Presently, there is limited use of absolute standards.



Figurec 1: Effective financial reporting showing the process of developing financial standards

Target standards involve comparing the performance of a study as related to specific set goals, budgetary provisions, and strategies. Typically, an organization develops specific prospects in the form of the target, which should be achieved within a specific time frame. The success of the organization is determined by its ability to meet the set goals. According to Applebaum et al. (2017), setting targets is an effective way of evaluating

performance because of its simplicity and precision. In essence, the failure of the organization to meet these basic requirements is termed as poor performance. Target standard performances are not measurable with those of other organizations due to the variability in goals.

The Impact of AIS on the Performance of an Organization

Previous studies focus on the relationship between strategic planning and the alignment of information technology. There is a positive relationship between strategic planning and IT. Further, there is a need to strike a balance between the ambitions of the organization and its technological ability. Indeed, the mismatch between the goals an organization can offer and inappropriate technology leads to poor performance. There is a need, therefore, to put in place proper plans with justifiable measures to implement a suitable information technology system.

A classic example of the mismatch between IT and poor strategic planning is Small and Medium Enterprises (SMEs). In most cases, small organizations do not have the resources to adopt an effective IT system and make informed decisions. SMEs are pressured into adopting the information technology system due to cutthroat competition from larger organizations. Almaliki et al. (2019) pointed out that SMEs, in particular, have adopted this approach, which does not work. The outcome is a continuation of poor decision making and spending, leading to the collapse of the venture.

Presently, organizations are taking steps to ensure that they deploy the latest IT technology to improve their performance. The process of decision making, which is the backbone of the functionality of an organization depends on the ability to access quality financial information on time. The effectiveness and profitability of the organization depend on the expertise of employees and the adoption of efficient IT systems. Accountants should focus on providing financial statements that can are straightforward.

The need for Information Management Accounting Systems

Previous studies suggest that accounting management practices were developed to combat the growing need for high-quality information. According to Kareem et al. (2019), the managing bodies of various forms felt that quality information for decision making was vital. To enhance management economic unity and resolve various administrative challenges stemming from inefficient accounting practices, an accounting information system was put into place. Managerial accounting, therefore, refers to the integration of data and accounting information of an institution. Adenike and Adewoye (2018) found out that managerial accounting practices usually rely on coherently coordinated and integrated information, which defines accounting practices and the role of administrators in these organizations. The internal control system, the financial accounting system, and the basic accounting system can be unified through proper administration, resulting in effective accounting practices and high quality of information.

Modern Technology in the System of an Institution

The fundamentals of information technology refer to hardware and software, which play a vital role in compiling inputs and payment of data elements. In line with the findings of Harash (2017), integrating these important aspects broadcasts and produces subsidiaries when presented in specific fragmentation models. The running and maintenance of the system rely heavily on three major trends. They include technicians, software, and

hardware. Software is a particular application for performing computer operations and providing output while hardware tools are physical components of a computer. The integration of the three main pillars of information technology is vital for the efficient working of an organization.

Conceptual Framework

A contingency framework for the designing of AIS is a suitable approach to analyze the relationship between the environment, the organization, AIS, and decision making (Bellavitis et al. 2017). The four pillars of the contingency approach impact accounting practices and, thus, the need to evaluate each pillar separately.

III. METHODOLOGY

Research Design and Method

A descriptive approach was used to collect, analyze, and integrate the data for this research. Further, this study deployed qualitative and quantitative research approaches. When both approaches are integrated, there is a better understanding of the research problem. The data collection process involved questionnaires that were answered by the study participants. The subsequent stages of data analysis were carried out in a quantitative approach in order to address the main research questions adequately.

Sampling

A non-probability sampling with a convenience sampling method to determine suitable participants for this study. First, the companies of interest were selected due to their ability to participate through availing financial reports for Analysis. The companies are located in the Kurdistan region in Zakho, which made locational access easier, and thus suitable for this study. The participants of this study were drawn from the selected companies. In total, there were seven companies where the participants were drawn. They include Amsterdam Co., Asurlar Tourism, Biladi Company, Mobin Cosmetic, Forum Company, Mirsham Company, and Brisk Tour, as summarized in the table below. In total, there were 19 participants selected from 7 companies eligible for this study.

N.	*The Company's Name*	*Company's Assets Size $*	*The Number of Employees*	*Sector*	*Location*
1	Amsterdam Co.	2,000,000	20	Commercial	Zakho
2	Biladi Company	1,500,000	16	Commercial	Zakho
3	Asurlar Turisim	1,700,000	12	Commercial	Zakho
4	Forum Company	850,000	15	Commercial	Zakho
5	Mobin Cosmatic	1,200,000	16	Commercial	Zakho
6	Mirsham Company	750,000	22	Commercial	Zakho
7	Brisk Tour	1,010,000	16	Commercial	Zakho

Received: 22 Feb 2020 | Revised: 13 Mar 2020 | Accepted: 05 Apr 2020

Data Collection

Primary data used for this study was collected from the participants through questionnaires. The questionnaire was an effective method of data collection because of its cost-effective and limited time attributes. There was a mutual agreement between the companies and the researchers regarding the use of their financial information to avoid breaching legal provisions. The participants were asked to read and sign consent forms before participating in this study. A pilot study was carried to evaluate the feasibility of this study. The outcomes of the pilot study were used to design the questionnaires in the format of close-ended questions.

Data Analysis

The results of the questionnaire were recorded and transcribed for data analysis. The data was tabulated and then fed into the SPSS software for data analysis. The SPSS software was selected due to its ability to compute variables, frequencies, and other forms of descriptive statistics and inferential statistics. The software was also used to present data in different forms, such as graphs and tables, for straightforward interpretation.

IV. DISCUSSION OF THE RESULTS

The variables were grouped into two, the dependent and independent variables. The performance of the organization was the dependent variable (ZY), while the accounting information system (AIS) was the independent variable (ZX). In total, there were eleven employees, a single unit leader, two company managers, and two company owners. Only one-third of the participants had attained a bachelor's degree, while a majority of the respondents had secondary school certificates. No participant had attained a postgraduate degree. All the participants in this study were males, with half of them having five to ten years of work experience. Four participants had less than three years of experience and four others who had more than ten years' experience. There was only one respondent who had between 3- and 5-years' experience.

Table 1: The general information of participants

N.	Section's Parts	The Levels	Frequencies	
			F.	Total
1	Position Class	Employee	11	19
		Unit leader	1	
		Company Manager	2	
		Company Owner	5	
2	Academic Degree	Secondary School	12	19
		Undergraduate	6	
		Postgraduate	0	
		Other	1	
3	Gender	Female	0	19
		Male	19	
4	Experience	Less than 3 years	4	19
		3 to 5 years	1	
		6 to 10 years	10	
		More than 10 years	4	

The hypothesis has been measured by applying multiple linear regression. The independent variable is the accounting information system, while the dependent variable is the performance of an organization. The null hypothesis is that there is a negative relationship between accounting information and the organization's performance, while the alternative hypothesis is that there is a positive relationship between accounting information and the organization's performance. Table 3 shows the results of the multiple regression.

Table 2: Coefficients Table

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.076	.729		2.848	.011
	ZY	.525	.160	.622	3.272	.004

Table 3: ANOVA Table

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.582	1	.582	10.708	.004[b]
Residual	.924	17	.054		
Total	1.507	18			

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.622[a]	.386	.350	.233

The value of the adjusted R square is .386, which reveals that a 38.6% variation in the performance of an organization can be explained by various independent variables. The ANOVA results represent the fitness model (Table 3). The F values is 10.78, while the P-value is 0.004, which reveals that the dependent and independent variables fully met the criteria for model accuracy. Since the p-value is less than 0.005, the results are statistically significant. The value of the unstandardized beta coefficient is 0.622, which means that one-unit change brings 0.622 unit change in the performance (Table 2). The regression coefficients are statistically significant. The null hypothesis was rejected. Thus there is a positive relationship between accounting information and the performance of an organization.

The findings of this research conclusively reveal that there is a strong positive correlation between the accounting information system and the performance of an organization. Previous studies suggested that information technology is not only a feasible approach to the running of larger organizations but also smaller and medium enterprises. Almaliki et al. (2019) reported that both larger and smaller organizations opt for accounting

practices that deploy technology, improve the overall efficiency of the organization. These findings are similar to those of this research. The results of this study which represent the practices of both larger and small companies in terms of asset sizes, noted that the performance of an organization is determined by the type of information technology in use. There is need to note that AIS is a modern technology that provides a more practical approach to accounting.

Kareem et al. (2019) explained that the decision making activities of a company heavily on various forms of financial statements, including income statements and balance sheets. Managers and stakeholders also rely on accurate financial information that can only be extracted from a working AIS technology (Ali et al., 2016). The suggestions of previous researchers showed that many companies deploy AIS due to its success in the operations of the company. These outcomes replicate the findings of this study by noting that there is a positive relationship between the performance of an organization and the use of AIS. Organizations which involves this technology-intensive method of evaluating financial information are likely to record higher profit margins and improvements as compared to other companies.

The results of this study are also similar to those of Ahmad and Al-Shbiel (2019), who previously reported that organizations are presently taking steps to a more efficient AIS technology. Many organizations have realized the importance of real-time information in making decisions and forecasting. There is a huge reliance on systems that can handle complex financial requirements and deliver their outcomes in a more presentable way. The outcomes of the literature review showed that an effective AIS system directly contributes to an improvement in the performance of an organization. In agreement with the results of past research, majority of the respondents for this research revealed that companies tend to employ more sophisticated IT to process financial information. The similarity between the prepositions of the literature review and the outcomes of this study noted that the performance of an organization depends on their adoption of accounting information systems.

V. CONCLUSION

Organizations are interested in improving their performance through proper decision making. Owners and managers alike have developed their desire to increase their profit margins while displaying stellar customer service. The underlying principle of these successes is the adoption of effective accounting procedures are goal-oriented. Information technology has been adopted in various fields, including engineering, financial services, and health. There is a need to note that many organizations depend on the financial statements of the company to make relevant decisions. Financial statements are not only being used in decision making but also for valuation and seeking loans to boost the working capital of the organization. The increasing requirement for accurate financial information in real-time is the main reason for the development and adoption of AIS technology.

Notably, small and medium enterprises (SMEs) are still lagging in adopting this essential method of presenting financial data for valuation and decision making. The findings of this study also suggested that organizations that employ individuals with more expertise in the AIS technology have more improved performance. Indeed, accounting procedures form the basis of an organization. The reforms and developments within the organization depend on the ability to integrate accounting practices and the latest developments in information technology.

The commitment shown by the management of the organization to adopt an efficient accounting system reflects its eagerness to improve the performance of the company. The accounting practices of an organization are directly related to its ability to perform and meet its set goals. Organizations that have efficient accounting practices make informed decisions and useful insight into the future. On the other hand, poor quality of accounting information attracts poor decision making and inaccurate measures, which compromise the overall performance of the organization. The ability to make rational decisions reflects the ability of an organization's management to determine the strength of the organization.

REFERENCES

1. Almaliki, O. J., Rapani, N. H. A., Khalid, A. A., & Sahaib, R. M. (2019). Structural equation model for the relationship between accounting information system and internal audit effectiveness with the moderating effect of experience. International Business Education Journal (IBEJ), 12, 62-82.
2. Ahmad, M. A., & Al-Shbiel, S. O. (2019). The Effect of Accounting Information System on Organizational Performance in Jordanian Industrial SMEs: The Mediating Role of Knowledge Management. International Journal of Business and Social Science, 10(3).
3. Al-Dmour, A. H., & Al-Dmour, R. H. (2018). Applying Multiple Linear Regression and Neural Network to Predict Business Performance Using the Reliability of Accounting Information System. International Journal of Corporate Finance and Accounting (IJCFA), 5(2), 12-26.
4. Adenike, A. T., & Adewoye, J. O. (2018). Investment in accounting information system and sales growth: An investigation of Nigeria small and medium enterprise.
5. Ali, B. J., Omar, W. A. W., & Bakar, R. (2016). Accounting Information System (AIS) and organizational performance: Moderating effect of organizational culture. International Journal of Economics, Commerce and Management, 4(4), 138-158.
6. Tilahun, M. (2019). A Review on Determinants of Accounting Information System Adoption. Science Journal of Business and Management, 7(1), 17.
7. Harash, E. (2017). Accounting performance of SMEs and the effect of accounting information system: a conceptual model. Global Journal of Management and Business Research.
8. Kareem, H. M., Aziz, K. A., Maelah, R., Yunus, Y. M. & Dauwed, M. (2019). Organizational performance in Iraqi SMEs: validity and reliability questionnaire. Academy of Accounting and Financial Studies Journal, 23(6), 1-16.
9. Bellavitis, C., Filatotchev, I., & Souitaris, V. (2017). The impact of investment networks on venture capital firm performance: A contingency framework. British Journal of Management, 28(1), 102-119.
10. Mithas, S., & Rust, R. T. (2016). How information technology strategy and investments influence firm performance: Conjecture and empirical evidence. Mis Quarterly, 40(1), 223-245.
11. Marchewka, J. T. (2016). Information technology project management: Providing measurable organizational value. John Wiley & Sons.
12. Appelbaum, D., Kogan, A., Vasarhelyi, M., & Yan, Z. (2017). Impact of business analytics and enterprise systems on managerial accounting. International Journal of Accounting Information Systems, 25, 29-44.