

# **The Effect of Building Information Modelling (BIM) on the Accounting Information System (AIS) of construction firm**

Hisham Noori Hussain Al-Hashimy

*Computer Information System Department, University of Basrah*

---

## **Abstract**

*Scholars and the Building Information Modelling (BIM) have been experimenting with new approaches to improve the sustainability of buildings. One such approach is the accounting information system (AIS), a modern modelling of technology. As a result, the current study looks at the state of the literature on AIS and sustainable construction, as well as the latter's development. The new research provides a wider perspective than past analyses of the problem, taking into account social, economic, and environmental factors as well as how they are related. In order to conduct a complete evaluation, the researchers conducted an informatics analysis of the literature and categorized it based on the results. Nine unique keywords and 61 variants were used to search for existing literature on the topic between 2010 and 2022. After that, content analysis was used to confirm the informatics study's findings and identify patterns and gaps. For instance, it was found that despite the topic's relevance, there were not many publications on it—no more than 25% of papers were published between 2010 and 2022. A void in the literature about the flaws and dimensions of accounting information systems was also found by the researchers. However, despite AIS's modest growth over the past few years, there is currently little literature study on organizational performance, behavior, and these topics. This demonstrates the significance of AIS research that is directly connected to the efficiency of construction firms.*

**Keywords:** AIS, BIM, firm size

---

Date of Submission: 06-12-2022

Date of Acceptance: 19-12-2022

---

## **I. Introduction**

The emphasis on accounting information systems (AIS) has been shifting in the BIM fundamentals (Cater-Steel, Toleman et al. 2019, Khayer, Jahan et al. 2020). Because of this, AIS has become a reliable source of BIM (Lei, Rao et al. 2020). In addition, it has become more significant in organizational research and government policy, with terms like "computerized economy" and "AIS" becoming more common. Computerization is the only essential resource that grows in utilization rather than degrades as a result (Hussein, Kasim et al. 2015, Korinek and Stiglitz 2021). Intangible resources are likely to provide a BIM in any performance setting, with human capital serving as the key factor because it cannot be replicated. Human capital is like the AIS, skills, and aptitudes that are already present in an individual (Qader, Ismeal et al. 2021). However, human capital is equivalent to an individual's capacities, competencies, and AIS (Sumaryati, PRAPTIKA NOVITASARI et al. 2020). Accounting information system has an impact on firm performance as revealed by a several of previous studies in the literature, for instance (e.g., Alabdullah, 2018; Alabdulah et al, 2022; Alabdullah et al., 2019; Alabdullah et al., 2020; Abushammala, et al., 2015; Alabdullah et al., 2021; Alabdullah, 2014; Alabdullah et al., 2015; Alabdullah, 2016; 2018; Alabdullah et al., 2018; Alabdullah, 2019; Alabdullah, 2020; Alabdullah et al., 2021; 2019; Amashhadani and Amashhadani, 2020; Almashhadani, 2021; Kanan 2012; Kanan et al., 2014; Kanan et al., 2015; Kanan et al., 2022; Ahmed et al., 2015; Almashhadani, 2021; Nor et al., 2020; AL-Fakhri and Alabdullah, 2021; Alfadhel et al., 2013; Alfadhel et al., 2016; 2018; Ahmed et al., 2020; Amashhadani and Amashhadani,2012; Alabdullah, 2022).According to Whitaker, Thatchenkery et al. (2020), AIS is a serious worry in contemporary building. In addition, AIS has developed into a corporate philosophy that helps organizations build the tactical capabilities they need to deal with the rising ambiguity and unpredictability of the corporate world. Researchers and practitioners agree that computerization is important for businesses to achieve and maintain a BIM (AL-HASHIMY 2017, Wiggins 2020). BIM is seen differently by different studies. Some think it is an organization's most valuable and

trustworthy resource (Saka, Chan et al. 2020), while others think it is crucial to its very existence (Donnan and Wilson 2021).

The original AIS study focused on technology as a vital information transmission facilitator (Lázaro, Raulefs et al. 2019). As a result, experts have made significant investments in informative technologies to support AIS projects (Liang, Wu et al. 2019). The majority of these AIS initiatives, nevertheless, have had trouble producing the anticipated outcomes (Ahimbisibwe, Morton et al. 2020). Despite being advantageous in certain aspects, the AIS projects, according to Ahimbisibwe, Morton et al. (2020), have not always produced additional products and services, skilled personnel, or enhanced workflows (Haider, Herrera-Escobar et al. 2020).

The AIS agenda's use of intellectual resources is commonly seen to be hindered by firm size (Speldekamp, Saka- Helmhout et al. 2020, Al-Hashimy and Yusof 2021). Academics have emphasized the need of researching the human factors that influence AIS (Qiao, Liu et al. 2020). Additionally, it has been discovered that corporate culture has a significant impact on how a firm manages its computerized (AL-Hashimy 2018, Kucharska and Bedford 2019). As a result, businesses must take culture into account when launching AIS initiatives (Kucharska and Bedford 2019), given that culture may either discourage or facilitate BIM development and transfer (Haywood and Getchell 2021). A corporation may assess how effectively AIS processes and culture align in a certain business setting if it is aware of its own culture.

Additionally, the business could cultivate a culture that promotes electronic sharing, which is essential to its success (Martínez-Caro, Cegarra-Navarro et al. 2020). Recently, the concept of computerization as a help to construction enterprises has attracted a lot of attention and wide acceptance. Since sufficient computerization of performances is a crucial element in the survival of the sector Kadir and Broberg (2020), AIS is becoming more and more significant in the construction industry. Unfortunately, Iraq's deployment of structured AIS is still in its early stages, including in the construction industry (HUSSAIN 2017, Alfartoosi, Jusoh et al. 2021). The relevance of computerization should thus be seen by construction businesses as a valuable resource in attaining BIM, and AIS development initiatives should be seen as a component of the corporate future management agenda to achieve specified goals (Favoretto, de Sousa Mendes et al. 2021).

## II. Issue of the study

The relevance of BIM conditions for AIS has been emphasized by several academics through deliberate technological effects. In general, Iraq has a moderate acceptance rate for AIS, which can be attributed to the technology's early development. This study uses corporate structure as a negotiator and firm performance as a regulator to examine the AIS program in Iraqi BIM enterprises. The main benefits of AIS in the construction industry, as well as how its adoption and implementation in the BIM, may help the country's economy flourish.

## III. AIS implementation in the BIM

Benefits	Barriers
Improved performance.	Lack of time and money.
Cost/time reduction.	Temporary, project-based and dispersed.
Process and product improvement.	Employee resistance.
Perceived benefit of AIS financial statement.	Poor organizational culture and structure.
Reports preparation decision making.	Ad hoc adoption, piecemeal.
Improved decision-making and problem-solving abilities.	Problems of validation and measurability.
There are fewer errors and duplications of labor.	Incentives to computerize distribution are lacking.
Improved retention, motivation, satisfaction, and staff quality.	AIS's merits are not well understood.

Computerization, accessibility, and awareness have all increased.	Concurrent shift orientations and a lack of context-awareness.
Collaboration that is more efficient.	
Computerize transfer across a variety of project interfaces.	
Organizations will be more agile and respond better to organizational changes.	
Risk minimization.	

#### IV. BIM AND AIS

##### Measurement of Organizational Performance

##### Earnings per Share (EPS)

Every existing piece of common stock receives a part of a company’s revenue (Arumugam, Hussein et al. 2015). As a measure of a net profit, operating income is computed as follows:

$$EPS = \frac{\text{Net Income} - \text{Dividends on Preferred Stock}}{\text{Average Outstanding Shares}}$$

Average Outstanding Shares

##### Return on Equity (ROE)

Determined by dividing a particular year’s gross earnings by the market value of equity at the start of the year:

$$ROE = \frac{\text{Earnings}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Equity}}$$

##### Return on Assets (ROA)

A statistic that depicts a company’s profitability in relation to its overall resources:

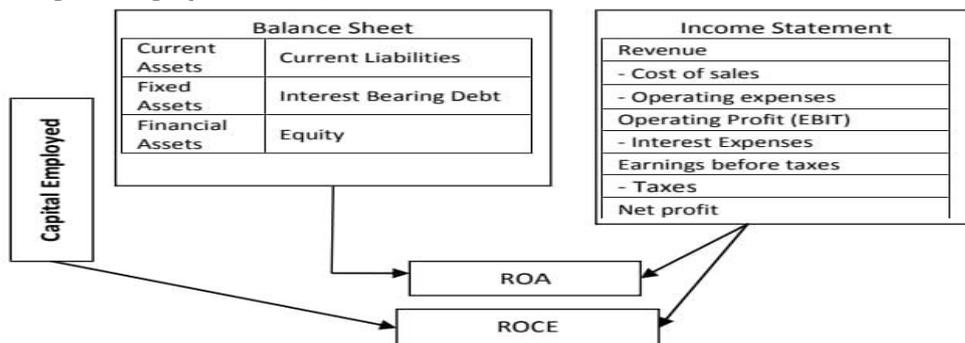
$$ROA = \frac{\text{Net income}}{\text{Total assets}}$$

##### Return on net worth (RONW)

the share capital split by gross profit RONW is a metric used to measure progress from the stakeholders’ standpoint. The RONW is computed as follows:

$$RONW = \frac{\text{Net income}}{\text{Owner’s equity}}$$

##### Return on Capital Employed (ROCE)



#### V. RESEARCH PARADIGMS

This study made use of the quantitative method, empirical epistemology, and positivist ontology. Provide a researcher with a detailed grasp of how a certain phenomenon is anticipated to behave to formulate a framework or theory. Removes the potential problems of assumption and prejudice that may develop in interpretive research by allowing researchers to evaluate their hypotheses and rely on statistical measurements (statistics) to support their findings. Since replication of findings is essential for theoretical testing, evidence may be reproduced for authentication purposes in subsequent study. Concerning the research's prospective audience (Al-HASHIMY and Al-hashimy 2019).

## VI. Research planning

Analysis that blends qualitative and predictive techniques. The connection between BIM and AIS implementation elements, Utilization of BIM (ROA, ROE), which stands for performance measurement, The objective of this study is to objectively assess presumptions about the relationships between the variables in a theoretical framework drawn from earlier studies. Therefore, it was completed utilizing a logical process and the quantitative approach (AL-Hashimy 2019).

### 3.1 BIM assessment instrument

No.	Variable	Question (Item)
1.	Return on Assets (ROA)	My firm often uses BIM-based returns on assets (ROA).
2.	Return on equity (ROE)	The firm's BIM capability would be difficult and expensive for the rivals to return on equity (ROE).
3.	Earnings per Share (EPS)	EPS is still considered a very powerful BIM measurement tool amongst investment analysts.
4.	Return on Net Worth (RONW)	RONW was positively related to shareholders' value.
5.	Return on Capital Employed (ROCE)	Return on capital employed (ROCE) or the company's profitability has to exceed its cost of capital.

## VII. JUSTIFICATION OF SELECTED SAMPLE

In the context of anticipating the BIM, reason one Decoherence will be applied to AIS (Hu, Sun et al. 2019). reason two Contracting businesses that collaborate with educational institutions were specifically chosen as the sample because they are the ones who install information systems and information technology the most in Iraq (Alazzam, Alassery et al. 2021). reason three It was discovered that the absence of AIS in businesses has a negative impact on both the BIM and the profitability (Alemayehu, Nejat et al. 2021).

## VIII. Collection of Date

**Method:** Subjective survey that respondents can download, fill out at their convenience, and have collected. Harper Shehadeh, Abi Ramia et al. (2020) suggested doing a pre-test for the pilot survey to better identify the issues with the questions and allow for their revision before being implemented.

Cronbach's Alpha	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

## IX. First, choose a statistical method

**First** - The WARPPLS 7 software uses partial least squares (PLS) to simulate structural equations (WARP).

**Second-** WARPPLS 7 is the suggested alternative for structural equation modelling when the objective is analytical and mostly theoretical research or when there is just a minimum prior primary framework in the present literature (Memon, Cheah et al. 2019).

**Third-** Since PLS can handle complexes with as little as two or even one indicator component, it is appropriate for our investigation (Ringle, Sarstedt et al. 2020).

**Fourth-** The input is not always "normal," and the PLS technique minimizes dispersion rather than attempting to explain the correlation (Saber-Movahed, Najafzadeh et al. 2020).

## X. THEORY OF DATA ANALYSIS

1. SPSS version 20.0, the Statistical Package for Social Science.
2. Confirmatory factor analysis in structural equation modelling (WARP)
3. Check that the data complies with the sampling strategy.

## XI. Conclusions

The literature on the use of AIS computing in BIM is examined in the current study from a viewpoint not previously addressed by the existing reviews. Instead of concentrating on applying financial management methods computers to various stages of the project, the researchers' goal was to investigate the evolution of the research on this topic and its increase in contextual performance.

The authors were able to adequately address the study objectives by performing a media review of the literature and classifying it based on the pertinent analytics of 733 articles published in scientific journals between 2010 and 2022. Even though the volume of scholarly papers on the use of BIM has substantially expanded over time, the fraction of articles on. The predicted phrases include "organizational behavior," "AIS," "BIM," and "organization size" when examining the words that the writers use the most frequently (e.g., BIM and AIS).

Select a classification scheme and do a comparison analysis on some of the data, including the patterns and voids related to this issue. There is more resonance between the economic and ecological aspects as well as the social and environmental characteristics, even though the quantity of articles published in each major topic stays constant. On the other hand, there aren't many studies that look at every facet of success. Additionally, scholars have recently started to concentrate on how the computerization of AIS is related to all elements of construction business efficiency. Considering the most recent informatics analysis results, Likewise, papers, conferences, and books were not taken into consideration; only peer-reviewed publications were. Only scientific output analyses with solid methodological underpinnings and peer acceptance in this area were chosen by the researchers. Finally, the outcomes demonstrate that the keywords are selected.

As a result, publications without any of these keywords are not considered. However, the language was chosen with such care that it covered almost all the writings on this topic. The researchers concluded by listing the three main issues and gaps: a lack of ontology across structural fields of information structures, a lack of integrations among financial reporting data management tools of social and reliability tools, and a lack of ontology across structural components of information structures. There are no common standards or rewards for.

## REFERENCES

- [1]. Ahimbisibwe, B. P., et al. (2020). "Household welfare impacts of an agricultural innovation platform in Uganda." *Food and Energy Security* 9(3): e225.
- [2]. AL-HASHIMY, H. (2017). "Factor Influencing Salaries and Wage Order: Empirical Study at Basra University." *IOSR Journal of Business and Management* 19(1): 30-36.
- [3]. AL-Hashimy, H. N. H. (2018). "The Effect of Tax System on Shareholder Decisions when Choosing a Accounting Principles." *Journal of Reviews on Global Economics* 7: 21-27.
- [4]. AL-Hashimy, H. N. H. (2019). "The Role of Auditing Practices that Affect Accounting Standards and Taxable Income: A Study in Iraq." *Journal of University of Babylon for Pure and Applied Sciences* 27(6): 244-258.
- [5]. Al-Hashimy, H. N. H. and N. A. Yusof (2021). "The relationship between the computerized accounting information system and the performance of contracting companies." *Materials Today: Proceedings*.
- [6]. Al-HASHIMY, M. and H. N. H. Al-hashimy (2019). "Strategic Accounting in the Profitability of Construction Engineering Projects Management Companies in Iraq." *Journal of Engineering and Applied Sciences* 14(3): 941-944.
- [7]. Alazzam, M. B., et al. (2021). "Development of a mobile application for interaction between patients and doctors in rural populations." *Mobile information systems* 2021.
- [8]. Alemayehu, S., et al. (2021). "A multivariate regression approach toward prioritizing BIM adoption barriers in the Ethiopian construction industry." *Engineering, Construction and Architectural Management*.
- [9]. Alfartoosi, A., et al. (2021). "The effect of e-accounting and mediated by internal control system on the performance of SME in Iraq." *American Journal of Business and Operations Research* 3(1): 5-38.
- [10]. Arumugam, V., et al. (2015). "A Review and Model Development of the Factors that Affect Mobile Marketing Acceptance by Customers." *International Journal of Science and Research* 4(10): 1475-1478.
- [11]. Cater-Steel, A., et al. (2019). "Design science research in doctoral projects: An analysis of Australian theses." *Journal of the Association for Information Systems* 20(12): 3.
- [12]. Donnan, H. and T. M. Wilson (2021). *Borders: Frontiers of identity, nation and state*, Routledge.
- [13]. Favoretto, C., et al. (2021). "Digital transformation of business model in manufacturing companies: challenges and research agenda." *Journal of Business & Industrial Marketing*.
- [14]. Haider, A. H., et al. (2020). "Factors associated with long-term outcomes after injury: results of the functional outcomes and recovery after trauma emergencies (FORTE) multicenter cohort study." *Annals of surgery* 271(6): 1165-1173.
- [15]. Harper Shehadeh, M. J., et al. (2020). "Step-by-Step, an e-mental health intervention for depression: a mixed methods pilot study from Lebanon." *Frontiers in psychiatry* 10: 986.
- [16]. Haywood, K. M. and N. Getchell (2021). *Life span motor development*, Human kinetics.

- [17]. Hu, Q., et al. (2019). A quantum key distribution scheme based on quantum error-avoiding code in decoherence-free subspace. *Proceedings of the ACM Turing Celebration Conference-China*.
- [18]. HUSSAIN, H. (2017). "Introduction to management skills must be available to accountants in Iraq." *International Institute for Science, Technology and Education*.
- [19]. Hussein, H., et al. (2015). "A review of creative accounting practices and its area, technique and ways of prevention." *International Journal of Science and Research* 4(10): 1377-1381.
- [20]. Kadir, B. A. and O. Broberg (2020). "Human well-being and system performance in the transition to industry 4.0." *International Journal of Industrial Ergonomics* 76: 102936.
- [21]. Khayer, A., et al. (2020). "The adoption of cloud computing in small and medium enterprises: a developing country perspective." *VINE Journal of Information and Knowledge Management Systems*.
- [22]. Korinek, A. and J. E. Stiglitz (2021). Artificial intelligence, globalization, and strategies for economic development, *National Bureau of Economic Research*.
- [23]. Kucharska, W. and D. A. Bedford (2019). "Knowledge sharing and organizational culture dimensions: does job satisfaction matter?" *Electronic Journal of Knowledge Management* 17(1): 1-18.
- [24]. Lázaro, F., et al. (2019). "VHF Data Exchange System (VDES): an enabling technology for maritime communications." *CEAS space Journal* 11(1): 55-63.
- [25]. Lei, Y., et al. (2020). "BIM based cyber-physical systems for intelligent disaster prevention." *Journal of Industrial Information Integration* 20: 100171.
- [26]. Liang, T.-P., et al. (2019). "Why funders invest in crowdfunding projects: Role of trust from the dual-process perspective." *Information & Management* 56(1): 70-84.
- [27]. Martínez-Caro, E., et al. (2020). "Digital Alabdullah, T. T. Y., &Asmar, M. (2022). Under COVID-19 Pandemic Impact: Do Internal Mechanisms Play Fundamental Role in Corporations' Outcomes. *Business Ethics and Leadership*, 6(1), 83-91.
- [28]. AL-Hashimy, H. N. H. (2018). The Effect of Tax System on Shareholder Decisions when Choosing a Accounting Principles. *Journal of Reviews on Global Economics*, 7, 21-27.
- [29]. AL-Hashimy, H. N. H. (2018). The Impact of Building Information Management (BIM) on the Profitability of Construction Projects. *International Journal of Scientific and Management Research*, 5(10), 156-169.
- [30]. AL-Hashimy, H. N. H. (2019). The Role of Auditing Practices that Affect Accounting Standards and Taxable Income: A Study in Iraq. *Journal of University of Babylon for Pure and Applied Sciences*, 27(6), 244-258.
- [31]. Al-Hashimy, H. N. H. (2022). The Impact of Building Information Management (BIM) on the Profitability of Construction Projects.
- [32]. Al-Hashimy, H. N. H., &Yusof, N. A. (2021). The relationship between the computerized accounting information system and the performance of contracting companies. *Materials Today: Proceedings*.
- [33]. Al-Hashimy, H. N. H., Said, I., & Ismail, R. (2022). Evaluating the Impact of Computerized Accounting Information System on the Economic Performance of Construction Companies in Iraq. *Informatica*, 46(7).
- [34]. Al-HASHIMY, M., & Al-hashimy, H. N. H. (2019). Strategic Accounting in the Profitability of Construction Engineering Projects Management Companies in Iraq. *Journal of Engineering and Applied Sciences*, 14(3), 941-944.
- [35]. AL-Hashimy, H. N. H. (2022). The Impact of Building Information Management (BIM) on the Profitability of Construction Projects. *International Journal of Scientific and Management Research*, 5(10), 156-169.
- [36]. AL-Hashimy, H. N. H. (2022). A review of Accounting Manipulation and Detection: Technique and Prevention Methods. *International Journal of Business and Management Invention*. 11(10), 82-89.
- [37]. AL-Hashimy, H. N. H. (2022). The Impact of Corona virus Pandemic on the International and Domestic Economy: Analysis the Strengths and Weaknesses Based on SWOT Analysis. *International Journal of Business and Management Invention*. 11(10), 90-96.
- [38]. Alia, M. A., Asmar, M., & Ali, F. H. (2023). The Relationship Between Disclosure Quality and Firm Performance: Evidence from Companies Listed in Palestine Exchange. *International Conference on Business and Technology*,
- [39]. Alm, J. (2019). What motivates tax compliance? *Journal of Economic Surveys*, 33(2), 353-388.
- [40]. Ahmed, E. R., Islam, M. A., &Ariffin, K. H. K. (2015). An empirical analysis on legitimacy of sukuk: an insight of Malaysian sukuk. *Asian Social Science*, 11(13), 84.
- [41]. Ahmed, E. R., Mamar, S. H. A., &Ghassani, A. S. A. (2021). Risk Management Practices and Financial Performance: The Case of Banks in Sultanate of Oman. *AFRE (Accounting and Financial Review)*, 4(2), 164-171.
- [42]. Ahmed, E. R., Bin Yahya, S., &Haron, M. (2014). Shubuhat: related activities in Islamic financial operations. *Journal of Islamic Economics, Banking and Finance*, 113(3580), 1-19.
- [43]. Al-Aamri, A. K., Al-musallami, F. H., Ahmed, E. R., &Qazi, M. (2021). Impact of Audit Committees on Quality of Financial Reporting: A Study in Oman. *International Journal of Business and Management Invention* , 10(10), 35-43.
- [44]. AL-kiyumi, R. K., AL-hattali, Z. N., & Ahmed, E. R. (2021). Operational Risk Management and Customer Complaints in Omani Banks. *Journal of Governance and Integrity*, 5(1), 200-210.
- [45]. Alshali, N. M., Alhattali, N. H., & Ahmed, E. R. (2021). Behavior of Consumers and Green Product: A Study in Oman. *International Journal of Business and Management Invention*, 10(9), 40-51.
- [46]. Alsulmani, A. H., Alkindi, S. S., & Ahmed, E. R. (2021). Customer Accounting Information and Omani Service Companies' Performance. *International Journal of Finance & Banking Studies* (2147-4486), 10(2), 79-88.
- [47]. Alyaarubi, H. J., Alkindi, D. S., & Ahmed, E. R. (2021). Internal Auditing Quality and Earnings Management: Evidence from Sultanate of Oman. *Journal of Governance and Integrity*, 4(2), 115-124.
- [48]. Gani, A. A. M. O., Al Rahbi, A. H. S. S., & Ahmed, E. R. (2021). Empirical Analysis on Corporate Transparency, Competitive Advantage, and Performance: An Insight of Muscat Securities Market. *Journal of Governance and Integrity*, 4(2), 96-102.
- [49]. Hao, Y., Ahmed, E. R., Singh, K. S. D., &Amran, A. (2019). Innovation and diversity based organization culture and its effect on competitive advantage. *Opción: Revista de CienciasHumanas y Sociales*, (21), 1205-1216.
- [50]. Issa, S. S., Khalaf, H. H., Almuain, A. R., & Ahmed, E. R. (2018). Effectiveness of inflation targeting based monetary policy. *Opción*, 34(16), 590-605.
- [51]. Singh, K. S. D., Islam, M. A., Ahmed, E. R., &Amran, A. (2019). An empirical investigation into the major drivers of corporate social responsibility. *Opción: Revista de CienciasHumanas y Sociales*, (21), 1076-1090.
- [52]. Thottoli, M. M., Thomas, K. V., & Ahmed, E. R. (2019). Examining the impact of information communication technology on auditing professionals: A quantitative study. *Journal of Advanced Research in Dynamical and Control Systems*, 11(12), 476-488.
- [53]. Thottoli, M. M., & Ahmed, E. R. (2021). Information technology and E-accounting: some determinants among SMEs. *Journal of Money and Business*.
- [54]. Salih, W. K., Ahmed, E. R., & Rahim, N. F. A. (2019). The internal supply chain of operation and green sustainability. *Opción: Revista de CienciasHumanas y Sociales*, (21), 1221-1231.

- [55]. Alabdullah, T. T. Y., Al-Fakhri, I., Ahmed, E. R., &Kanaan-Jebna, A. 2021. Corporate Governance System and Firm Financial Performance. *Acta Scientific Computer Sciences*, 4 (6), 97-103.
- [56]. Abushammala, S. N., Alabdullah, T. T. Y., & Ahmed, E. R. (2015). Causal Relationship between Market Growth and Economic Growth. *Comparison Study. European Journal of Business and Management* 7(33).
- [57]. Ahmed, E. R., Alabdullah, T. T. Y., Ardhani, L., &Putri, E. (2021). The Inventory Control System's Weaknesses Based on the Accounting Postgraduate Students' Perspectives. *Journal of Accounting and Business Education*, 5(2), 1-8.DOI: <http://dx.doi.org/10.26675/jabe.v5i2.19312>.
- [58]. Ahmed, E. R. e. A.(2016). Zakat and Accounting Valuation Model. *Journal of Reviews on Global Economics*, 5(16-24), 24.
- [59]. Ahmed, E. R., Islam, M. A., Alabdullah, T. T. Y., and bin Amran, A. (2018). Proposed the pricing model as an alternative Islamic benchmark. *Benchmarking: An International Journal* 25, 2892–2912. doi: 10.1108/bij-04-2017-0077.
- [60]. Ahmed, E. R., Alabdullah, T. T. Y., Shaharudin, M. S., &Putri, E. (2020). Further Evidence on the Link between Firm's Control Mechanisms and Firm Financial Performance: Sultanate of Oman. *Journal of Governance and Integrity*, 4(1), 1-6.
- [61]. Ahmed, E. R., Alabdullah, T. Y., Islam, M. A., &Asmar, M. (2014) "Sukuk Legitimacy: A New Measurement Based on Content Analysis" 16th Malaysian Finance Association Conference in SasanaKijang Central Bank of Malaysia, Kuala Lumpur, June 4-6, 2014.
- [62]. Ahmed, E. R., Alabdullah, T. T. Y., Thottoli, M. M., &Maryanti, E. (2020). Does Corporate Governance Predict Firm Profitability? An Empirical Study in Oman. *The International Journal of Accounting and Business Society*, 28(1), 127-143.
- [63]. Ahmed, E. R., Aiffin, K. H. B., Alabdullah, T. T. Y., &Zuqebah, A. (2016). Zakat and Accounting Valuation Model. *Journal of Reviews on Global Economics*, 5, 16-24.
- [64]. Ahmed, E. R., AAmran, Alabdullah, T. T. Y., & , A Islam (2019). Testing The Legitimacy Index In Light Of Shariah Risks For Sukuk Markets. *European Proceedings of Social and Behavioural Sciences* 88.
- [65]. Ahmed, E. R., Islam, M. A., and &Alabdullah, T. T. Y. (2017). The moderating role of Shariah supervisory board on sukuk pricing benchmark. *International Journal of Excellence in Islamic Banking and Finance* 6.
- [66]. Ahmed, E. R., Islam, A., Zuqibeh, A., &Alabdullah, T. T. Y. (2014). Risks management in Islamic financial instruments. *Advances in Environmental Biology*, 402-406.
- [67]. Ahmed, E. R., Islam, M. A., Alabdullah, T. T. Y., &Amran, A. B. (2019). A qualitative analysis on the determinants of legitimacy of sukuk. *Journal of Islamic Accounting and Business Research*. Vol. 10 No. 3, pp. 342-368.
- [68]. Alabdullah, T. T. Y., Yahya, S., &Ramayah, T. (2014). Corporate Governance Mechanisms and Jordanian Companies' Financial Performance. *Asian Social Science*, 10(22), p247.
- [69]. Ahmed, E. R., Alabdullah, T. T. Y &Shaharudin, M. S. (2020). Approaches to Control Mechanisms and Their Implications for Companies' Profitability: a Study in UAE. *Journal of accounting Science*, Vol. 4, no. 2, pp. 11-20.
- [70]. Ahmed, E. R., Rahim, N. F. A., Alabdullah, T. T. Y., &Thottoli, M. M. (2019). An examination of social media role in entrepreneurial intention among accounting students: a SEM study. *Journal of Modern Accounting and Auditing*, 15(12), 577-589.
- [71]. Ahmed, E. R., Alabdullah, T. T. Y., Amran, A., &Yahya, S. B. (2018). Indebtedness Theory and Shariah Boards: A Theoretical Approach. *Global Business and Management Research*, 10(1), 127-134.
- [72]. Ahmed, E. R., Islam, M. A., &Alabdullah, T. T. Y. (2014). Islamic sukuk: Pricing mechanism and rating. *Journal of Asian Scientific Research*, 4(11), 640.
- [73]. Alabdullah, T. T. Y., Al-Fakhri, I., Ahmed, E. R., &Kanaan-Jebna, A. 2021. Empirical Study Of The Influence Of Board Of Directors' feature On Firm Performance. *Russian Journal of Agricultural and Socio-Economic Sciences*. 11(119), 137-146.
- [74]. Alabdullah, T. T. Y. (2021). Management accounting insight via a new perspective on the risk management - companies' profitability relationship. *International Journal of Intelligent Enterprise* 7, In press.
- [75]. Alabdullah, T. T. Y., Ahmed, E. R., and Nor, M. I. (2020). The World Declining Economy And Coronavirus Pandemic: Systems Should Be Continued. *Russian Journal of Agricultural and Socio-Economic Sciences* 102, 89–96. doi: 10.18551/rjoas.2020-06.11.
- [76]. Alabdullah, T. T. Y. (2021). Ownership Structure and the Failure or Success of Firm Performance: Evidence from Emerging Market; Cross-sectional Analysis. *International Journal of Business and Management Invention*, 10(8).
- [77]. Alabdullah, T. T. Y. (2019). Management Accounting and Service Companies' Performance: Research in Emerging Economies, *Australasian Accounting, Business and Finance Journal*, 13(4), 100-118.doi:10.14453/aabfj.v13i4.8.
- [78]. Alabdullah, T. T. Y. (2017). Compensation committee, company board attributes, and company performance: The moderating effect of leadership position. Paper presented at the 2017 Wei International Academic Conference Proceedings, July 24-27, 2017, Business and Economics.
- [79]. Alabdullah, T. T. Y. (2016). Are Board Size And Ownership Structure Beneficial In Emerging Markets' Firms? Evidence from Jordan. *International Journal of Management & Information Systems (IJMIS)*, 20(3), 87-94.
- [80]. Alabdullah, T. T. Y. (2016). Agency Theory Perspective: A Quantitative Study Of Accounting Performance Measures In Emerging Economies. *ICTE Proceedings*, New York.
- [81]. Alabdullah, T. T. Y., Ahmed, E. R., &Nor, M. I. (2018). New Ideas from Management, Finance and Accounting Perspective: The Research for A New Link Between A Company's Outcome and Risk Management. 5th International Conference on New Ideas in Management, Economics and Accounting.
- [82]. Alabdullah, T. T. Y. (2016). Corporate Governance from The Perspective of The Past and The Present and The Need to Fill an International Gap. *Risk Governance & Control: Financial Markets & Institutions*, 6(4).
- [83]. Alabdullah, T. T. Y., Yahya, S., &Ramayah, T. (2014). Corporate Governance Development: New or Old Concept? *European Journal of Business and Management*, 6(7), 312-315.
- [84]. technologies and firm performance: The role of digital organisational culture." *Technological Forecasting and Social Change* 154: 119962.
- [85]. Memon, M. A., et al. (2019). "Moderation analysis: issues and guidelines." *Journal of Applied Structural Equation Modeling* 3(1): 1-11.
- [86]. Alabdullah, T. T. Y. (2016). The Performance of Companies and The Board's Characteristics From the New Perspective of Manipulation Avoidance. *Corporate Ownership & Control*, 13(4), 279-286.
- [87]. Alabdullah, T. T. Y., Maryanti, E. (2021). Internal Control Mechanisms in Accounting, Management, and Economy: A review of the Literature and Suggestions of New Investigations. *International Journal of Business and Management Invention*, 10(9).
- [88]. Alabdullah, T. T. Y., Ahmed, E. R. (2021). New Insights to Investigate the Impact of Internal Control Mechanisms on Firm Performance: A Study in Oman. *RisetAkuntansi dan Keuangan Indonesia*, Vol. 6,(2).
- [89]. Alabdullah, T. T. Y., Alfadhl, M. M. A., Yahya, S., & Rabi, A. M. A. (2014). The Role of Forensic Accounting in Reducing Financial Corruption: A Study in Iraq. *International Journal of Business and Management*, 9 (1), 26.

- [90]. Alabdullah, T. T. Y., Ahmed, E. R., & Ahmed, R. R. (2021). Organization features and profitability: Implications for a sample of Emerging Countries. *Journal of Accounting and Business Education*, 5(2), 43-52. DOI: <http://dx.doi.org/10.26675/jabe.v5i2.16351>.
- [91]. Alabdullah, T. T. Y., Ahmed, E. R., Mohammed Almashhadani, M., Yousif S, Almashhadani H, Almashhadani R, Putri, E (2021). How Significantly to Emerging Economies Benefit From Board Attributes and Risk Management in Enhancing Firm Profitability? *Journal of Accounting Science* 5(2).
- [92]. Almashhadani, H. A., & Almashhadani, M (2022). An overview of recent developments in corporate governance. *International Journal of Business and Management Invention*, 11(5), 39-44.
- [93]. Almashhadani, H. A., & Almashhadani, M (2022). Why Internal Control Mechanisms Deserve Serious and Creative Thinking: Dotohey Provide Useful Insights. *International Journal of Business and Management Invention*, 11(8), 60-66.
- [94]. Alabdullah, T. T. Y., Ahmed, E. R., (2020). A cross-sectional analysis of the influence of corporate governance features on the organizational outcomes: An assessment. *International Islamic University Chittagong*. 17(2). P.P 6-26.
- [95]. Alabdullah, T. T. Y., Yahya, S., Nor, M. I., & Majeed, F. Q. (2016). An Investigation of Corporate Governance from A New Perspective: Examining the Financial Performance of Companies and The Impact of Executive Turnover. *Corporate Board: Role, Duties & Composition*, 12(1).
- [96]. Alabdullah, T. T. Y., Ahmed, E. R., & Muneerali, M. (2019). Effect of Board Size and Duality on Corporate Social Responsibility: What has Improved in Corporate Governance in Asia?. *Journal of Accounting Science*, 3(2), 121-135.
- [97]. Alabdullah, T. T. Y., Ahmed, E. R. (2019). Board Diversity and Disclosure of Corporate Social Responsibility Link: A Study in Malaysia. *Journal of Adv Research in Dynamic & Control System*, 11(11).
- [98]. Alabdullah, T. T. Y. (2018). The relationship between ownership structure and firm financial performance. *Benchmarking: An International Journal*, 25(1), 319-333.
- [99]. Alabdullah, T. T. Y., Laadjal, A., Ries, E., & Al-Asadi, Y. A. A. (2018). Board Features and Capital Structure in Emerging Markets. *Journal of Advanced Management Science*, 6 (2).
- [100]. Alabdullah, T. T. Y., Nor, M. I., & Ahmed, E. R. (2018). The determination of firm performance in emerging nations: Do board size and firm size matter? *Management*, 5(3), 57-66.
- [101]. Alabdullah, T. T. Y., Ahmed, E. R., & Nor, M. I. (2019). Do board characteristics provide more enhancement for firm financial performance? A corporate governance perspective. *New challenges in corporate governance: Theory and practice* (pp. 89-91). [https://doi.org/10.22495/ncpr\\_25](https://doi.org/10.22495/ncpr_25).
- [102]. Alabdullah, T. T. Y., Alfadhil, M. M. A., Yahya, S., & Rabi, A. MA (2014). The Role of Forensic Accounting in Reducing Financial Corruption: A Study in Iraq. *International Journal of Business and Management*, 9, 26-26.
- [103]. Alabdullah, T. T. Y., Ahmed, E. R., Almashhadani, M., Yousif, S. K., Almashhadani, H. A., Almashhadani, R., Putri, E. 2021. How significantly to emerging economies benefit from board attributes and risk management in enhancing firm profitability? *Journal of accounting Science*, Vol. 5, no. 1
- [104]. Alabdullah, T. T. Y., Ahmed, E. R., & Yahya, S. (2018). The determination of firm performance in emerging nations: Do board size and firm size matter?. *International Academic Journal Of Accounting And Financial Management*, 5(2), 57-66. DOI: 10.9756/IAJAFM/V5I2/1810017.
- [105]. Alabdullah, T. T. Y. & Ahmed, E. R. (2020). Audit Committee Impact on Corporate Profitability in Oman Companies: an Auditing and Management Accounting Perspective. *RisetAkuntansidanKeuangan Indonesia*, Vol. 5, no. 2, pp. 121-128.
- [106]. Alabdullah, T. T. Y. and Ahmed, E. R. (2018). Corporate Governance: To What Extent it is important in the Arab Countries. *International Journal of Science and Research* 7.
- [107]. Alabdullah, T. T. Y & Ahmed, E. R. & Abushammala, S. (2020). Growth of Companies: Empirical Study of the Companies Listed in Developing Economies. *Journal of accounting Science*, Vol. 4, no. 2, pp. 1-10.
- [108]. Alabdullah, T.T.Y., Kanaan-Jebna, Kanaan, Ahmed, E. R.(2022). THE IMPACT OF PLATFORMS BEING ANALOGUE IN SOME EUROPEAN COUNTRIES ON DEALING WITH MANAGEMENT ISSUES. *Russian Journal of Agricultural and Socio-Economic Sciences*, Vol. 10, no 102, 89-96. doi: 10.18551/rjoas.2020-06.11.
- [109]. Alfadhil, M. M. A. F. and Alabdullah, T. T. Y. (2013). Determinants of the Managerial Behavior of Agency Cost and Its Influential Extent on Performance: A Study in Iraq. *International Journal of Humanities and Social Science*, 3-3.
- [110]. Alfadhil, M. M. A., Alabdullah, T. T. Y. (2016). Agency Cost and Management Behavior: The Role of Performance as a Moderator. *International Journal of Science and Research (IJSR)*, 5(1), 1858-1864.
- [111]. AL-Fakhri, I., Alabdullah, T.T.Y. (2021). The Evolution of a Robust and Reliable Brand Experience Scale in the Malaysian Context: An Empirical Evidence. *Business Ethics and Leadership*, 5(4), 59-67. [https://doi.org/10.21272/bel.5\(4\).59-67.2021](https://doi.org/10.21272/bel.5(4).59-67.2021)
- [112]. Almashhadani, M. (2021). How Dose Corporate Governance Leverage Organizational Performance: A Survey With Suggestions And Notes For Further Research. *Russian Journal of Agricultural and Socio-Economic Sciences* 3(111), 3-9.
- [113]. Almashhadani, M. (2020). Testing the effecting elements of R&D engineer's inventively in design industrialization Sector: A study in Singapore. *Journal of Information and Computational Science*, 10(5).
- [114]. Almashhadani, M. (2021). A brief Review of Corporate Governance Structure and Corporate Profitability in Developed and Developing economy. *International Journal of Business and Management Invention*, 10(11).
- [115]. Almashhadani, M & Almashhadani, A.A., (2022). Internal mechanisms characteristics and firm financial profitability." *International Journal of Business and Management Invention* 11(5), 01-06.
- [116]. Almashhadani, M. (2021). Internal Control Mechanisms, CSR, and Profitability: A Discussion. *International Journal of Business and Management Invention*, 10(12), 38-43.
- [117]. Almashhadani, M.; Almashhadani, A.A. Corporation Performance and Corporate Governance System: An argument. *Int. J. Bus. Manag. Invent.* 2022, 11, 13-18.
- [118]. Almashhadani, M., & Almashhadani, H. A., (2022). CEO duality and firm performance: A review from the Middle East perspective. *International Journal of Business and Management Invention*, 11(2), 55-60.
- [119]. Almashhadani, M., & Almashhadani, H. A., (2022). Internal mechanisms features, unfavourable behaviour and firm performance. *International Journal of Business and Management Invention*, 11(4), 1-6.
- [120]. Almashhadani, M., & Almashhadani, H. A., (2022). Internal mechanisms characteristics and firm financial profitability. *International Journal of Business and Management Invention*, 11(5), 01-06.
- [121]. Almashhadani, M., & Almashhadani, H. A., (2022). Corporate Governance as an Internal Control Mechanism and its Impact on Corporate Performance. *International Journal of Business and Management Invention*, 11(8), 53-59.
- [122]. Almashhadani, M., & Almashhadani, H. A., (2022). An overview of recent developments in corporate governance. *International Journal of Business and Management Invention*, 11(5), 39-44.

- [123]. Almashhadani, M., & Almashhadani, H. A., (2022). Does Corporate Governance Improve Corporate Profitability: Reviewing the Role of Internal Corporate Governance Mechanisms. *International Journal of Business and Management Invention*, 11(6), 07–11.
- [124]. Almashhadani, M., & Almashhadani, H. A., (2022). The impact of ownership on profitability: An conceptual study. *International Journal of Business and Management Invention*, 11(6), 01–06.
- [125]. Almashhadani, M., & Almashhadani, H. A., (2022). The beneficial of firm size, board size, ownership structure, and independence in developing markets' firm performance: Evidence from Asia. *International Journal of Business and Management Invention*, 11(7), 88-92.
- [126]. Almashhadani, M. (2021). Internal Control Mechanisms, CSR, and Profitability: A. *International Journal of Business and Management Invention*, 10(12), 38–43.
- [127]. EssiaRies, A. (2014). Islamic Sukuk: Pricing mechanism and rating [Электронныйресурс]/EssiaRies Ahmed, Md. Aminul Islam, Tariq TawfeeqYousifAlabdullah. *Journal of Asian Scientific Research*, (4), 11.
- [128]. FaliChichan, H., &Alabdullah, T. T. Y. (2021). Does Environmental Management Accounting Matter in Promoting Sustainable Development? A study in Iraq. *Journal of Accounting Science*, 5(2), 114-126.
- [129]. Nor, M. I., Masron, T. A., &Alabdullah, T. T. Y. (2020). Macroeconomic fundamentals and the exchange rate volatility: empirical evidence from Somalia. *SAGE Open*, 10(1), 2158244019898841.
- [130]. Nor, M.I., 2012. The Effect Of Dollarization On Developing Economies: Lessons from Somalia's Informal Market. *Academic Research International*, 2 (3), 591-597.
- [131]. Nor, M. I. (2012). Financial market integration of Middle East and North African (MENA) countries. *Asian Journal of Management Sciences and Education*, 1(2), 63–72.
- [132]. Nor, M. I. and Masron, T. A. (2019), “Investigating the informal mode of financing utilized for construction financing in Somalia: Some evidence”, *African Journal of Science, Technology, Innovation and Development*, Vol. 11, No. 2, pp. 223-233. <https://doi.org/10.1080/20421338.2018.1551755>.
- [133]. Nor, M.I., Masron, T.A. and Gedi, S.Y. (2019), “Modeling of residential property rents in Somalia using two-stage modeling”, *International Journal of Housing Markets and Analysis*, Vol. 13 No. 2.
- [134]. Nor MI, Masron TA (2018). Turkish foreign direct investment and peace in somalia: a new political stabilization policy. *Int J Soc Econ* 45(2):419–436. <https://doi.org/10.1108/IJSE-01-2017-0014>.
- [135]. Nor, M. I. (2012). The nature and operations of the informal financial institutions in Somalia: An empirical survey. *Academic Research International*, 2(2), 661–674.
- [136]. Nor, M. I., & Masron, T. A. (2017). Does the observed value of Somali shilling deviate from its predicted value? *Journal of Policy Modeling*, 39(3), 532–546. <https://doi.org/10.1016/j.jpolmod.2017.03.007>
- [137]. .
- [138]. Mohamed, A. A., & Nor, M. I. (2021). Measuring the Contribution of Mobile Money Services to Financial Inclusion: The Case of Hormuud's Evc-Plus in Somalia. *International Research Journal of Finance and Economics*, (182).
- [139]. Nor, M. I. (2015). The volatility of Somalia's unregulated exchange rates. *Universiti Sains Malaysia*.
- [140]. Mohamed, A.A. and Nor, M.I., (2021). Assessing the Effects of the Mobile Money Service on Small and Medium-Sized Enterprises: Study on EVC-Plus Services in Somalia. *American Journal of Industrial and Business Management*, 11(5), pp.499-514. [Online] Available: DOI: 10.4236/ajibm.2021.115031. [March 24 2022]
- [141]. Nor, M.I., Masron, T.A. (2018), Do the global oil price shocks affect somalia's unregulated exchange rate volatility? *International Journal of Energy Economics and Policy*, 8(2), 154-161.
- [142]. Mohamed, A. A., & Nor, M. I. (2022). The macroeconomic impacts of the mobile money: empirical evidence from EVC plus in Somalia. *Journal of Financial Economic Policy*, (ahead-of-print).
- [143]. Asmar, M. (2018). Effects of bank-specific factors on the net interest margin of working banks in Palestine. *Journal of Economics & Management*, 33, 5-24.
- [144]. Asmar, M., & Ahmad, Z. (2011). Market microstructure: The components of black-box. *International Journal of Economics and Finance*, 3(1), 152-159.
- [145]. Asmar, M., & Brahmana, R. (2012). The role of energy commodities in Middle East stock market integration. *Energy Studies Review*, 19(2).
- [146]. Asmar, M., & Trimbath, S. (2022). Regulatory reform and trade settlement failures in USA equity markets: Does regulatory reform matter? *Quantitative Finance and Economics*, 6(4), 537-552.
- [147]. Asmar, M., Alia, M. A., & Ali, F. H. (2018). The Impact of Corporate Governance Mechanisms on Disclosure Quality: Evidence from Companies Listed in The Palestine Exchange. *International Journal of Economics, Commerce and Management*, 4, 401-417.
- [148]. Brahmana, R., & Asmar, M. (2011). Does Integration Occur on a Certain Day? The Case of the Lithuanian Stock Market. *South East European Journal of Economics and Business*, 6(2), 17.
- [149]. Kanaan-Jebna, A., & Baharudin, A. S. (2013). Factors Affecting Small and Medium Enterprises Success: An Exploratory Study. *Jurnal Teknologi*, 64(3), 69–72.
- [150]. Kanaan-Jebna, A., & Baharudin, A. S. (2014). The impact of market orientation on manufacturing SME performance in Malaysia with the moderating effect of e-commerce. *Proceedings of the 6th International Conference on Information Technology and Multimedia*, 169–172.
- [151]. Kanaan-Jebna, A., & Baharudin, A. S. (2015a). The contingent impact of inter-organization communication on the relationships between market and entrepreneurial orientations and manufacturing SME performance in Malaysia. *Journal of Scientific Research and Development*, 2(10), 66–77.
- [152]. Kanaan-Jebna, A., & Baharudin, A. S. (2015b). The impact of entrepreneurial orientation on manufacturing SME performance with the contingent effect of e-commerce in Malaysia. *Advances in Environmental Biology*, 9(5), 24–27.
- [153]. Kanaan, A., Baharudin, A. S., & Alabdullah, T. T. Y. (2022). Entrepreneurial Orientation, Market Orientation, Managerial Accounting and Manufacturing SMEs Satisfaction. *Journal of Accounting Science*, 6(1), 1–14.
- [154]. Kanaan-Jebna, A. & Massudi, M. (2013), Decomposing of SOA on File Transfer of Web Service on Windows And Mobile Environments. *Academic Research International*, 4(1), 321
- [155]. Kanaan, J. M. A., Alabdullah, T. T. Y., Ahmed, E. R., & Ayyasamy, R. K. (2022). Firm Performance and the Impact of Entrepreneurial Education and Entrepreneurial Competencies.
- [156]. Qian, L. Y., Baharudin, A. S., & Kanaan-Jebna, A. (2016). Factors affecting the adoption of enterprise resource planning (ERP) on cloud among small and medium enterprises (SMES) in Penang, Malaysia. *Journal of Theoretical and Applied Information Technology*, 88(3).