

ACCOUNTING INFORMATION SYSTEM AND FINANCIAL SUSTAINABILITY OF COMMERCIAL AND ISLAMIC BANKS: A REVIEW OF THE LITERATURE

Basel J. A. Ali, Applied Science University, Kingdom of Bahrain
Mohammad Salem Oudat, Applied Science University, Kingdom of Bahrain

ABSTRACT

The need for AIS adoption for enhancing financial sustainability among the commercial banks is yet to be directly explored in view of investigating its effect on these listed organisational constructs. This review investigates the impact of accounting information systems on Banks financial sustainability. The primary goal is to review the conceptual and theoretical foundations, as well as the empirical literature, relating to accounting information systems and firm financial performance. The review's findings reveal that previous research into the impact of financial performance accounting information have limited their work to the cost implications of the accounting information system as they relate to the financial performance of companies. However, in spite of the significance emergence of AIS, there is still inconsistent result that evaluates the effects of AIS on financial sustainability. This review also found that most studies used the survey research design to investigate this relationship, and the majority of studies in advanced economies were carried out in large measure with computerized accounting systems methods. Therefore, this review encourages further studies to address the literature gap.

Keywords: Accounting information system; Financial sustainability; Commercial and islamic banking.

JEL Classification: G2, D83, D80, G14

INTRODUCTION

In the last two decades, the importance of financial sustainability in manufacturing and business institutions as a way of reporting on sustainability has greatly increased. In former years the business organizations worked only for profit and survival, but recently their goals have gone beyond profit making to gain competitive advantages, sustainability, surviving turbulence, customer satisfaction and effective decision-making. Managers do need an advanced information system and tools to provide them with appropriate and essential business information for other purposes (Adenike & Michael, 2016; Ali et al., 2016a; Ali & AlSondos, 2020; Asmuni, 2020; Ali & Salem, 2020).

Managers have been obliged to consider more advanced management practices aimed at improving company decision-making (Alsmadi & Oudat, 2019) due to the need to strengthen industry, expand, and extend the current market environment (Davoren, 2019). Most of these strategies have been intended to support firms through quick technology advancements, increased awareness and demanding customer needs. One such tactic is the implementation of IT systems in companies. According to Ali et al. (2016a); Borhan and Bader (2018) information

systems include organizing logical and physical objects, records, procedures , policies, protocols, competencies, applications, applications, responsibilities, as well as other elements that define an organization's capabilities. An information system provides essential information for planning, organizing, conducting, leading and controlling an organization's activities to improve decision-making.

AIS is a mechanism that makes use of the IT portion to assist in monitoring an organization's economic-financial activities (Ali & AlSondos, 2020; Ali & Salem, 2020). As with any other information system, an Accounting System (AIS) plays an important part in daily corporate business management. Accounting IT systems are considered one of the supporting systems in management posts for the most effective use of available resources: planning, organization, monitoring and decision making (Ye & Hu, 2020). According to Borhan and Bader (2018), an accounting method (AIS) for the identification, calculation, compilation, review, planning, understanding, and transfer to a certain community of accounting information concerning a certain individual is a structured system.

Sustainable development definition first appeared in the early 1970s and was clearly described in the 1987 Brundtland report. Sustainable development is therefore characterized as the development which fulfils current demand and has no effect on future potential demand. In addition, sustainability is also described as "the incorporation into Earth's carrying, regenerating and assimilating capacity of the environmental , social and economic structures to improve the quality of life" from the perspectives of Huy and Phuc (2020). While the number and form of dimensions of sustainability include numerous aspects, it is generally accepted that sustainability is protected by three dimensions Economic, social and environmental characteristics. Therefore, financial sustainability should focus on environmental, social and economic outcomes (Abdul-Rashid et al., 2017; Ali & AlSondos, 2020; Ali & Salem, 2020), social success in improving life quality and coordinating effectively environmental dispensing management (Yusuf et al., 2013).

Financial sustainability is the survival mechanism of any banking institution (Oudat, & Ali, 2020; Oudat & Ali, 2021). Banks are expected to draw all possible strategies that will continuously nourish financial strength of the organisations. This is to support the investors' interest, and further attract investor (Sharma & Timiti, 2004). On other hand, the diverse usage of AIS has suggested its possible influence of organisational financial sustainability. From the findings of Ali et al. (2016a); Ali et al. (2016b); Alzoubi (2012); Hamdan (2012); El-Qirem (2013); Ali & AlSondos (2020); Ali & Salem (2020), AIS when employed by organisations enhance information efficiency, therefore positively support operational efficiency. Also, because of the quality service delivery that AIS always support, customer satisfaction is consequently achieved, which by turn influence the organisation's financial sustainability. However, in spite of the significance emergence of AIS, there is still insufficient and very few literature that evaluates the effects of AIS on financial sustainability.

The need for AIS adoption for enhancing financial sustainability among the commercial banks is yet to be directly explored in view of investigating its effect on these listed organisational constructs.

Therefore, this study aims to review the conceptual and theoretical foundations, as well as the empirical literature, relating to accounting information systems and financial sustainability. The next section of this paper provides a review of relevant literature for AIS and financial sustainability, followed by discussions of the gaps of AIS to the banks. The paper also presents a discussion of the latent variables and their related hypotheses after that the conceptual framework was developed based on the reviewed literature. Finally, a discussion

of the findings and the implications of the research along with conclusions, limitations, and recommendation for future research are presented.

LITERATURE REVIEW

This study is very significant and will contribute to accounting literature in the Middle East. The results of this study support to the knowledge body in AIS, in addition to other areas, financial sustainability. Such work will enable trade and Islamic banks and the top management, accountants and IT managers of large organizations to gain a better understanding of the performance of the accounting information systems. Furthermore, in response to the clarification of the need for general studies of AIS due to its teething phase, this study adds to the Bank of Literature on AIS and its organizational significance. It contributes to the empirical studies on the impact of AIS adoption on commercial and the Islamic banking sector in general and organizations.

Empirical Evidence of Accounting Information Systems (AIS) On Financial Sustainability

It is noteworthy that: few studies have examined the effect of AIS on financial sustainability. However, as earlier observed, few studies have been conducted on AIS generally, however some studies have been conducted on organisational behaviour, and financial performance specifically as either the dependent variable or the independent variable. Many studies Ali and Salem (2020); Ali and AlSondos (2020); Ali et al. (2016a); Ali et al. (2016b); Hassanein and Khalifa (2007); Wasiuzzaman (2013); Johan et al. (2013); Akotey (2013); Eljelly (2013); Katchova and Enlow (2013); and Wang (2008) have worked on understanding the concept of financial performance from its measuring dimensions and indicators. This has helped in viewing both the narrow and broad perceptions of financial performance, or financial sustainability as it might be conceptualized (Hasan & Ali, 2019; Hasan et al., 2021).

Ali and Salem (2020) investigated the relationship between information quality and data quality in AIS and its effects on organizational performance among commercial and Islamic banks in Jordan. Findings showed that information quality as AIS is an important factor that enhances organizational performance, while data quality is negative and insignificant. To become and remain competitive, commercial and Islamic banks need to implement a high-quality AIS as it helps organizations to obtain better performance. Given the negative and significant coefficient of data quality, it implies that information quality is a strategic factor for organization's survival. As a way of recommendations, high priority and more emphasis should be placed on the continuous improvement of AIS among the banks, as that will enable them to keep pace with technological developments within the financial sector. The outcome of this approach will also reflect positively on the bank's administrative functions particularly in the areas of planning and decision making (Oudat et al., 2015; Oudat et al., 2021). Hassanein and Khalifa (2007) worked on the application of financial and operational performance indicators to water and waste water utilities in both public and private sectors. The study assessed the performance of 234 public and private water and waste water utilities drawn developing and developed countries. For a reliable assessment, a set of financial performance indicators were computed using a combination of data about the 234 utilities extracted from World bank and annual reports of international utilities available on the internet. Indicators for private sectors from the US and UK utilities are of better value than the public sector. In this case, staff number per 1,000 connections, return on equity ratio and tariffs are charged. However, the percentage

of water that is unaccounted for and the ratio of debt to equity showed that: there is no advantage in private utilities over the public sector. Also, the result - using Egypt as a case study - suggested there is need for improvement in the water and wastewater utilities of the developing countries. Wasiuzzaman (2013) studied banks' financial performance characteristics considering their capital adequacy, liquidity, operational efficiency and asset quality. Using a total of 14 banks comprising nine (9) conventional and five (5) Islamic, measured the effect of each of the variable using t-test and regression analysis. The result showed that: return on average assets, bank size and board size were found to be more in conventional banks, while variables like: operational efficiency, asset quality, liquidity, capital adequacy and board independence were higher in Islamic banks. Liquidity, Board characteristics and type of bank were observed to be of high significance in their effect on profitability. In the same vein, (Johan et al., 2013) studied the financial performance of independent 100 finance companies for a stipulated. Using a total number of 194 of the finance companies in the industry, the seven micro financial ratios of profitability, efficiency, growth, firm size, liquidity, risk and solvability are employed for the analysis using Panel Dummy Regression. The study found that: integrated finance companies are of better efficiency, profitability, growth and size, with also higher reserve policy and lower liquidity.

In similar study, (Akotey, 2013) assessed the financial performance of the life insurance concept of an industry in an emerging economy. The study investigated all the main determinants of profitability of a life insurance company. This study in Ghana examined the relationship among the three measures of insurers' profitability, namely: investment income, underwriting profits and the total net profit. A panel regression method was used to analyse a sample of ten (10) insurance companies with data taken for a period of 11 years; 2000-2010. The result of the study indicated that: despite a gross written premiums' positive relationship with insurers' sales profitability. It has a negative relationship with investment income. It also shown that life insurers have incurred large losses of underwritings because of overtrading and price undercutting. It is also revealed that: a setting-off is complimentary to the relationship between underwriting profit and investment income in view of the enhancement of the overall profitability of the life insurers.

Also, Eljelly (2013) studying the whole Islamic banking system of Sudan - one of the countries with whole Islamic banking system - described their performance trait in holistic. From the study, after testing for the stability of these factors, six factors were observed as explanation for the financial ratios used in the study. These are: liquidity risk, coverage, efficiency, profitability, capital adequacy and control. Meaning: these factors explain the status of financial strength of the Sudan banks.

In the same vein, Katchova and Enlow (2013) studied the financial performance of publicly-traded agribusinesses. This study was conducted because of the report that –despite the agribusinesses' representation of the fundamental link between farmers, retailers and consumers - few researches have been conducted to examine the historical financial performance of food processing firms. Katchova and Enlow (2013) covering a period of 1961 to 2011 employed several indicators of company success like: financial ratio and items of balance sheets and statement of income. These were basically used to compare the agribusiness firms to other firms in the market using Du Pont analysis for the comparison of the return on equity components. The result of the study showed that the agribusinesses perform better at the median in comparison with other firms in terms of profitability, liquidity and market ratio as financial ratio's indicators. The agribusinesses are of slight lower liquidity and debt ratio. A relationship between return on equity and assets turnover ratio is recorded in agribusinesses' performance, indicating that: agribusinesses are of higher operating efficiency. In conclusion,

food manufacturing agribusinesses are pointed as viable companies for investment. The study found that: despite the fact that gross written premiums have a positive relationship with insurers' profitability, it has a negative relationship with investment income.

Akotey et al. (2013) assessed life insurance industries' financial performance of Ghana. The study picked investment income, underwriting profit and overall net profit as the measure of insurers' profitability, and studied the annual financial statements that cover 11 years of ten life insurance companies. The findings indicated that: despite the fact that gross written premiums have a positive relationship with sales profitability of the insurers, it has a negative relationship with investment income. The result further showed that overtrading and price undercutting are causing large underwriting losses, and a setting off relationship between underwriting profit and investment income.

In his own study, Wang (2008) evaluated financial performance of domestic airlines in Taiwan. The study revealed that: majority of the previous researches on airline performance are usually on their operational issues, without considering the significance of financial performance. Wang employed grey relation analysis for the clustering of the financial ratios and the finding of the representative indicators. In addition, a fuzzy multi-criteria decision making (FMCDM) method was applied for the evaluation of the financial performance of the airlines. Thereafter, an illustration of the empirical study conducted on three selected Taiwan airlines was presented. The findings suggested airlines should be ready to improve its competitive advantage for the main purpose of enhancing their finance capacity in the nearest future. Wang and others as afore-reviewed presented diverse methods and highlighted different indicators and dimensions for measuring financial performance. Others beneath as presented by this study concentrate on financial performance's influencing factors and associated variables (Wang et al., 2008).

Mishra et al. (2009) investigated the factors affecting the financial performance of new and beginning farmers. The factors under study are: farm, operator characteristics, household characteristics, farm type and regional location. The relationship of these factors and their effect on the financial performance of beginners' farmers and ranchers are investigated. Return on Assets (ROA) is used to measure the financial performance, and argued to be a function of the operator and farm characteristics, and management strategies. Farm operator characteristics, farm characteristics like production and marketing efficiency, and management strategies are the independent variables. The analysis of the study was done using Huber-White sandwich robust variance estimator algorithm in STATA, with adjustment of all the standard errors for heteroscedasticity. The result showed that value-added farming engagement and business plan follow-up can lead to better financial performance. However, an inverted U-shaped relationship between age of the operator and financial performance and management strategies increases the quantity of the decision makers.

Studying the causes and effects of intangible and tangible organisational performance, by Moeller (2009) elicited: trust, strategic relevance and participation as the influencing factors. A structural equation modelling (SEM) was used for the testing of a quantitative data collected from a large-scale sample of 100 German business networks. Using the heads of the management accounting departments as the respondents, with survey questionnaire as the instrument of data collection, the result revealed a relationship between the intangible and the tangible performance. This relationship is observed to be influenced by strategic relevance and participation. However, trust is not of significant effect on either the tangible (financial) or the intangible performance.

On the other hand, Cherian and Farouq (2013) studied the effect of leadership style on Banks' financial performance. In this study conducted on United Arab Emirate Banking

Sectors, banks listed in both Abu Dhabi Securities Exchange (ADX) and Dubai Financial Market (DFM) were taken using judgement sampling approach to identify a total of 18 banks. The result showed that there is a direct impact of the leadership style on the performance of the organisation. The study thus concluded that: the organizational Human Resources (HR) practices must be well designed for sustainable financial performance.

Also from United Arabs Emirates (UAE), Hassan and Halbouni (2013) investigated how and to what extent does corporate governance mechanisms affect financial performance. This study on ninety-five (95) of UAE-listed firms is drawn from both the financial and non-financial sectors of the country, with cross-section analysis. The cross-sectional regression analysis was used for the testing of the significant relationship between governance mechanisms using: voluntary disclosure, CEO duality, board size, and audit type and board committee as its dimensions, and firms' performance of the selected firms - controlling firm size, industry type, firm listing years and leverage. Hassan and Halbouni's study made their analysis based on secondary data published in year 2008. For measuring the firms' financial performance, the study utilizes accounting-based measures of Return on Assets (ROA), Return on Equity (ROE) and market measure. The findings of the study revealed that: voluntary disclosure, CEO duality and board size are affecting UAE's firms' performance measure significantly, while none of the variables of governance significantly affects the performance measure of the firms' market. It is further shown that: measures of the accounting-based performance are more reliable because of their objectivity in years of unstable economic conditions. Hassan and Halbouni's findings pointed that: variables that affect financial performance from the control and accounting-based variables are selective. It is noteworthy for precise understanding of the variables' interaction on firms of similar characteristics.

Studies on the relationship between intellectual capital performance, innovation and financial performance are: Murthy and Mouritsen (2011); Joshi et al. (2013); Mondal (2012); Bigliardi (2013).

Bigliardi (2013) investigated the effect of innovation on financial performance among the SMEs. Studying the effect of innovation with its interaction with firm size, Barbara collected a survey of 98 SMEs from the food machinery industries, and analysed using regression. The findings showed a positive correlation between innovation and financial performance, especially with the priority of meeting the customers' needs and fostering uniqueness in the competitive market. It is also however shown that technology adoption does not have any impact on the financial performance of the SMEs.

In support of Bigliardi (2013) assertion on the necessity of fostering customers' interest and satisfaction, (Lin, 2012) claimed that financial performance is strongly correlated to customer service engagement. In a study of 38 international airline companies using activity-based costing (ABC) for the cross-examination, it is opined that: effective applications of ABC procedures incorporate many important factors that can influence airline performance. With a case study using DEA for the financial statement analysis, the study observed that financial performance of airline companies is influenced by customers' satisfaction.

Murthy and Mouritsen (2011) used a case study approach to analyse the relationship between intellectual capital and financial capital. The study opines that: it extends the scholarly discussion regarding intellectual capital's relationship with value creation, with interest in the interrelationship among organizational, relational and financial capitals. Using a case study of a firm that invests in her intellectual capital for the purpose of financial capital development, a relationship is observed between the elements of intellectual capital and financial capital with statistical contribution from the highlights of the interaction among the intellectual capital elements. The result also challenges the linear model about intellectual capital elements as

universally reported by statistical studies. It is reported from the Interview-aided case study that: the relationship between intellectual capital and financial capital is rather complementary and not causal as widely reported statistical analyses on the relationship between intellectual capital/innovation and financial performance. Joshi et al. (2013) Mondal (2012) and Bigliardi (2013) are examples of these statistical studies.

In line with Bigliardi (2013) but with concentration of the linkage between financial performance and public finance access, Zarook et al. (2013) investigated the impact of financial performance on access to finance. The study based on 557 survey questionnaires drawn from different regions of Libya and data analysis comprising: descriptive, correlation and multivariate regression analysis confirmed that: financial performance has no significant effect on access to finance. The study expressed that: liabilities to assets ratio, profit, return of assets are the measuring variables for the financial performance. Chen (2013) work was a characterization of the financial performance of a selected audit firms in Taiwan. He compared the financial performance of the audit firm during distinctive period of market climates. With samples from large, medium and small audit firms, the study showed that organisational life cycle exist in audit firms. It was supported that: financial performance is related to the segment of the market lifecycle and the size of the firm. Meier (2013) in a similar trend tested the value (or lack) of financial flexibility during the financial crisis period. Meier investigated whether firms that have built financial flexibility years before the financial crisis upsurge can maintain and yield better performance during the period. Measuring the financial flexibility using cash equivalence, short-term and total debt and net debt as dimensions, and five years before the financial crisis taken as the proxies, the firms' portfolio and monthly stock returns were evaluated over a crisis. The result found showed that seemingly, high pre-crisis levels of cash do not have a positive impact on firm value during the crisis period. But, the result showed that high pre-crisis levels of debt had a negative impact on the value of the firm, thus supported the hypothesis that: financial flexibility has value.

Vitezić et al. (2012) in their study investigated the link between corporate sustainability and financial performance. The research which was done to test the hypothesis that: financial performance increases the possibility that companies act socially responsible, and also disclose their corporate social responsibility (CSR) report employed regression analysis. Using a sample of Croatian enterprises with nine (9) years operation coverage, the result of the study supported the assertion that: there is positive relationship between sustainability concept of performance and financial result. Impliedly, those companies with better financial performance and larger size are more corporate socially responsible. They are more aware of their corporate social performance and do report it consistently. The result is in alignment with the signalling theory, and with the expectation that: profitable companies have stronger capacity of disclosing their information regarding social activities. This is believed to enhance their competitive advantage and avoid incorrect performance assessment.

Sharma and Upneja (2005) investigated the influencing factors of financial performance among selected small hotels in Tanzania. Being a developing country, it is envisaged that the characteristics of factors influencing financial performance will be peculiar. The study used financial ratio analysis on the collected business performance data using interview as the method of data collection. It is reported that hotel industries in Tanzania is currently lacking such data repository. A region of more record of hospitality industries was chosen to enhance the quantity and quality of the data collected. The findings showed that: operational factors such as inefficiencies as a result of lack of employee training, low investments in fixed assets and technology are responsible for the low profitability in the

Tanzanian small hotels. It is also recorded that government policies are ignoring appropriate emphasis on safety, security and quick processing of the hotels' licenses and permits.

Lonial et al. (2008) studied the impact of market orientation on new service development (NSD) and the financial performance of the hospital industry. The study aimed at determining the critical factors of market orientation (MO) and measuring its effect on NSD and financial performance of selected hospital industries in Turkey. Using a self-administered questionnaire, the study collected its data from privately-owned hospitals in Istanbul, Turkey. A model showing an inter-relationship among MO, NSD-performance and financial performance was proposed from the theoretical background. The result of the analysed data showed that: MO strongly and positively affects NSD-performance, but has no significant effect on the financial performance. In the same trend, NSD-performance and financial performance are observed to be of strong and positive relationship. The findings gave the evidence that: NSD-performance plays a mediating role in the relationship between MO and financial performance in the hospital industries.

Another mediator in the cause and effect relationship with financial performance as a dependent variable is customer satisfaction (Al-Hawari & Ward, 2006). In a study of the effect of automated service quality on the financial performance of the Australian banks, Al-Hawari and Ward (2006) investigated customers' perception of service quality through customers' satisfaction plays as a mediator in the inter-relationship between automated service quality and financial performance. Using structural equation modelling (SEM), the study confirms the mediating role of customer satisfaction in the proposed model.

Chen and Huang (2013) examined the lagged association between financial performance and training. In this study of audit firms in Taiwan, a panel data of 136 audit firms from 1992 to 1998 was used to construct a fixed effect regression model in view of testing the hypotheses. The findings of the study showed that: the training for both the partners and assistants has significant positive effect on financial performance with the training occurring in the current year and one-year-lagged period. It thus posited that: the positive and significant association between training and financial performance shows that training contributes immensely to the financial growth of the audit firms, and thus justifies consistent and continuous education of the professionals in the industry.

In another direction, Zeidan (2012) investigated the effect of violation of law and regulation on financial performance of banks. This study which drew its sample of 128 from United States (US) publicly traded banks investigated whether the financial institutions' performance is affected by corporate violation of laws and regulations. The study observed that there is a correlation between violation of law and financial performance. A significant negative market reaction was observed in cases of law violation, but the market reaction did not have a meaningful variance with the seriousness or repetitiveness of the violations. Schaufele and Sparling (2011) in similar trend studied the relationship between regulation and financial performance of agribusinesses in Canada. Schaufele and Sparling's study investigated the relationship between regulatory changes, returns on equity and the stock market valuation of the selected Canadian food and non-food agribusinesses. Two empirical approaches: an event study for the evaluation of the impact of official regulatory announcement on stock market, and Du Pont expansion for the investigation of regulations' effect on firms' accounting profits are used. The study collected the analysed data from Bloomberg, Thompson One Banker and SEDAR - being secondary data. From the event study, official regulatory announcement dates are reported not to be corresponding with abnormal stock market returns of the studied Canadian firms. And, the Du Pont model showed mixed evidence in line with the accounting

profits. This implied that the relationship between regulation and financial performance is not concrete, therefore uncertain.

Gupta et al. (2011) studied the impact of memorandum of understanding (MoU) on financial performance of public sector. The study centred on measuring the social and commercial obligation of Indian's public sector enterprises (PSEs) through the financial performance of the MoU PSEs. Also, their performances are to be compared to non-MoU PSEs i.e. PSEs that have not opted for MoUs covering a period of 13 years. Financial ratio is used as the technique of assessing the financial performance, using: profitability, efficiency, liquidity and solvency as the financial performance indicators. From the findings, it is suggested that: MoU have yielded a decisive improvement in the PSEs' performance, as assessed during the period studied. The performances of the non-MoU PSEs are observed to be unsatisfactory. Impliedly, MoU positively impacted commercial profitability and operational efficiency of the PSEs.

A literature review of quantitative studies of impact of green management on financial performance revealed a mixed result: showing both positive and negative impact. However, the findings of positive impact are more predominant (Molina-Azorín et al., 2009). This is also evident in the reports of Siew et al. (2013); Dragomir (2010); Iwata and Okada (2011); Moneva and Ortas (2009).

Molina-Azorín et al. (2009) examined a total number of 32 studies through environmental variables, financial variables, and the statistical analyses in respect to the findings reported by these studies. In addition to a mixed result with positive impact having the highest occurrence of 85%, the study revealed a varying set of firms, industries and countries. Some of the studies employed environmental management variables, while others used environmental performance variable, however, with all using regression analysis. It is deductive from the findings that: the nature of the companies/industries, the country of study and the selected dimensions used in the measures of the variables affect the interrelationship between environmental performance and financial performance.

Going by the recent report of Siew et al. (2013) on the relationship between sustainability practices and financial performances of construction companies, a number of companies have the commitment of sharing information about activities that are related to environment, social and governance. This is obliged so as to ensure stakeholders' transparency. Siew et al.'s study explored the impact of reporting on financial performance of the studied construction companies. Firstly, the status of non-financial reporting of the publicly-listed construction companies on environmental management, environmental efficiency, health and safety, stakeholder engagement and climate change are examined. Other matters of no relevance to institutional investors are also discussed. The result of the empirical study of the impact of issuing non-financial reports and companies' sustainability practices on financial performance of the companies showed that: many of the studied publicly-listed construction companies have low levels of reporting. The construction companies that issue non-financial reports are said to be largely outperforming others, although with a weak and insignificant relationship between financial performance and the ESG scores.

In a similar trend of environmental issues as pointed out by Siew et al. (2013) and Dragomir (2010) traced a tripartite relationship involving environmental disclosure, environmental performance and financial performance of European companies. The companies selected are those that engage in environmental sensitive activities. Taking a sample size of 60 among the largest industrial groups in the European Union, Dragomir employed a content analysis of the most recently published reports till the end of 2008 on environmental sustainability. An environmental disclosure index taken from the Global Reporting Initiative

Guidelines was used to extract the FTS Euro policy. The study found a significant association between environmental disclosure and performance. It is observed that: the pollution prone activities are actively engaged in by the studied companies. However, there is no correlation found between financial performance and environmental performance of the companies.

Iwata and Okada (2011) investigated how environmental performance affects financial performance. From the study conducted on manufacturing firms, the study also essentially examines the correlation between environmental performance and financial performance. Using a data collected from Japanese manufacturing firms covering 2004 to 2008, the results revealed financial performance is dependent of the environmental performance, and it varies according to the stakeholders' preference. It is observed that: effect of waste emission on financial performance is negatively related with the rate of the firm growth. The rate of the firm growth increases and the partial effect of waste emission on financial performance decreases. However, the effect of greenhouse gas emission on financial performance increases in the same condition.

Moneva and Ortas (2009) evaluated the significance of the correlation and interrelationship between corporate environmental performance and financial performance. The focus of the study is to illustrate - especially to the managers - how good environmental management can result in firm's financial success. Moneva and Ortas (2009) collected a sample of 230 European companies in view of analysing their environmental and financial performance using partial least square model (PLS), with the analysis of the environmental performance being linked to the firms' financial improvement. The result of the study supported the assertion that: enterprises with higher environmental performance shows better future of their financial performance nature.

On another hand, DiPietro et al. (2011) empirically investigated the relationship between inspection and financial performance. In the study conducted on quick service restaurants with international chain, quality, service and cleanliness (QSC) are the studied inspection coverage. The restaurant QSC inspection data and audited financial data were collected from the selected 25 quick service restaurants for a period of 18 months with total unit sales per week, revenue per available seat per week and gross operating income for each month of the studied period as the financial performance measures. The data analysis of the study showed that: the relationship between QSC variable and restaurant performance is weak. Also, a 'V' curve in QSC inspection and financial performance is found when the size of the restaurant is chosen as a moderating variable. This can be interpreted that: the size of the restaurant moderates the relationship between QSC inspection and the financial performance.

Also on logistic and financial performance relationship, Töyli et al. (2008) presented an exploratory study of logistics performance of Finnish small and medium enterprises (SMEs). The study analysed the relationship between the firms' logistics performance and financial performance using a sample size of 424 SMEs. Based on the values of the logistics performance measures, the logistics values of the top performing firms were identified among the heterogeneous industry groups. Hence, there was an examination of the financial performance of these firms through their peers in the industry using their financial reports-based data. The result showed that the overall level of logistics performance among the studied samples is of elementary level, thus with no observable statistical relationship between logistics performance and financial performance. It however revealed that: firms where logistics is key to their competitive advantage in the sample is small, therefore this might be responsible for the inability to show the linkage in the analysis. Service level and logistics cost efficiency is reported to be positively related. Hence, companies of relatively-high service level will have relative low-logistics costs. In conclusion, it implies that: logistics is in its prime stage among Finland

SMEs. Therefore, it is suggested that for enhanced competitive advantage, SMEs should focus more on logistics performance.

Many variables ranging from: customer engagement, service quality, system quality, system quality operator characteristics, household characteristics, farm type and regional location, trust, strategic relevance and participation, leadership style, innovation, corporate sustainability, market orientation, violation of law and regulation, memorandum of understanding, environmental management among others have been studied in relationship with financial performance. Whether as causative factor, influencing factor, a mediator or moderator, the context of the study and knowledge to be extended are always the determinants. The choice of the variables to be studied and the assigned roles must be in support of the study's context.

Understandably, few studies - to the best knowledge of the researcher - that have investigated the impact of AIS on financial performance, profitability or financial sustainability are: (Acharya et al., 2008; Wang et al., 2008; Etim, 2011; Kouser et al., 2011; Wedyan et al., 2012; Ahmad, 2013; Ali et al., 2016a; Ali et al., 2016b; Ali & AlSondos, 2020; Ali & Salem, 2020).

Ali et al. (2016a) investigated the impact of success factors in the organizational performance of the Accounting Information System (AIS). In this study, four types of AIS success factors were used: quality of service, quality of information, quality of data and quality of the system. The results have demonstrated that service quality, quality of information and system quality are the major success factors for AIS to boost operational performance. This study shows that banking sector organizations can increase their performance by adopting and implementing AIS success factors. And even if AIS is not fully utilized, companies with high organizational performance are not helpful.

Similarly Ali et al. (2016b) analyzed the role of the AIS on organizational performance and the moderating effect of corporate culture on AIS success factors and organizational performance. Four types of AIS success factors are service quality, information quality, data quality and system quality as determinants of results were used in this analysis. The results show that quality of service, information quality and system efficiency are important factors for AIS success in that corporate performance. This study has also demonstrated that organizational culture contributes to improved performance by interacting with information quality, data quality and system quality. This study shows that organisations, which participate in the banking industry, can improve their performance by adopting and implementing AIS success factors together with a favorable corporate culture.

Ahmad (2013) in his study on the ability of AIS to support profitability and growth discussed the issue of financial growth and profitability in industrial companies using two indicators: return on equity, return on assets, as measures of the performance of companies on a regular basis. The study's results were contrary to many previous studies in this framework. Therefore, he submitted that the results cannot be generalized. Against this, it cannot be concluded and submitted that AIS do not affect the performance of the companies. The study pointed to application problem in terms of integrating AIS into the Jordanian companies as a possible setbacks and the result of the study.

Though Etim (2011) worked on the need to enhance the efficiency of AIS in organizations, the exploratory research design aggress that AIS is a decision support system (DSS) with its achievement in aiding organisational decision making process. The study identified that: the three types of organizations: service, merchandising and manufacturing, all require information for continuous survival. The study, among its claims is that: AIS improves the financial performance of the companies that adopt it. The study further recommends ethical

orientation for staff, effective communication, prompt capturing/recording of transactions and regular review of internal controls.

In Kouser et al. (2011) while discussing the impact of AIS on companies' profitability pointed to firm size and leverage as contributing variables. The study stated that: AIS as a subset of Information system are many used by organizations for the purpose of improving the efficiency of the business activities as it automates the existing operations. This study found the effects of AIS on profitability of Pakistani firms. The study investigated the difference between adopters and non-adopters of accounting system, and concluded that companies that adopted AIS have more financial return that those that do not. Using Return on Assets (ROA) measured by profitability as the dependent variable, Leverage and Firm Size as independent variables and AIS as the intervening variable, the study reported that the independent variables are determinants of profitability. In the same vein, AIS acts as an intervention, and its involvement further aids the companies' profits.

A field study from the managerial view point is Wedyan et al. (2012). This study identified the effect of AISs application on the profitability and cost reduction of Jordanian banks. Based on a descriptive analytical method with the aid of primary data collected through a designed survey questionnaire to measure the effect of AIS, the study found that banks depend heavily on accounting systems. Also, a selected authorities among the bank managers were interviewed making the study methodology to be a mixed method approach of data collection. The study reported that: although banking services are on respective department basis, accounting systems are employed to link the services between all the departments. This allows good service delivery and clients' satisfaction since service are delivered quickly with bearable input. It is further shown that: for competitive advantage among the market competitors, each bank must ensure provision of (i) financial statement to the clients, and (ii) full electronic access and support to money deposit, withdrawal, transfer and other associated banking transaction without necessarily being in the banking hall. This is only possible through a full integration of accounting systems into the banking operations. And it is on the premise that customers' banking experience will be enhanced, and consequently positively affect their profitability.

The effect of online banking intensity on the financial performance of community banks was analyzed by Acharya et al. (2008). It's worth noting that AIS refers to a broad category of accounting-related information systems. Because the internet serves as a channel for selling banking services, the study's findings showed an increase in internet usage. According to reports, online services have significantly increased the financial performance of community banks. Wang et al., (2008) investigated the influence of AIS on the financial performance of third-party logistics under the conceptualization of AIS as Information Technology (IT) (3PL). A mail-based questionnaire survey was used in the Chinese study. According to the findings of the study, IT dramatically improves the financial performance of 3PL companies. In the relationship between executive involvement and IT advantage, IT and business strategy planning are also said to have a complementary impact on financial performance. In conclusion, AIS is said to have a positive impact on 3PL financial performance. The above-presented review has shown the diverse interrelationship among organizational constructs. It is evident that the effect of AIS adoption is still scantily studied, the few studies pointed to the significance of AIS adoption. It is recorded that AIS has been contributing positively to customers' experience, operational flow, and financial sustainability.

THE LITERATURE'S GAPS

The above comprehensive literature obliges the research to expand the body of information so as to find gaps in these previous studies, as this review is based on. As already mentioned, few literature and few studies based on AIS are still conducted – an evolving field with minimal exploration. This research therefore primarily expands the amount of AIS literature. Furthermore, the explicit theoretical, functional and methodological gaps which this analysis will resolve are set out below:

Theoretical Gap

Also, considering the inter-relationship between AIS adoption and financial sustainability, Ahmad, (2013) studied the AIS ability to support profitability and reported that: although with an inconclusive remark, AIS do not affect the financial performance of the companies. Kouser, et al., (2011) included firm size as a contributing variable, and concluded that AIS involvement aids companies' profits. Wedyan, 2012; Ali, & AlSondos, 2020; Ali & Salem, 2020 reported banks' managers depends heavily on AIS for profitability and cost reduction. Acharya, et al., (2008) reported that internet services has greatly improved the community banks's financial performance. Wang, et al., 2008; Ali et al. (2016); Ali et al. (2016b); Ali & AlSondos, 2020; Ali & Salem (2020) reported that: AIS is reported to positively influences financial performance of the 3PLs. However, in spite of the significance emergence of AIS, there is still insufficient literature that evaluates the effects of AIS on financial sustainability.

Although majority of the studied reported a positive effect of AIS adoption on financial profitability, Ahmad, (2013); Ali, & AlSondos, (2020) suggested further researches in this direction. As a theoretical contribution, customer satisfaction is now included as a moderating variable in the study of the interaction between AIS adoption and financial sustainability. Barth, 2007; Duncan & Elliott, (2004) suggested a relationship between Customer engagement, service quality and financial sustainability of the companies. On this note, the involvement of a conceptualised variable: customer satisfaction should be tested as a moderator in the interaction between financial sustainability and AIS adoption.

Practical Gap

In practice, the impact of AIS adoption on Islamic and conventional banks worldwide is very much to be studied. In view of a comparative study, few study presented examined the impact of the AIS adoption on financial sustainability between the Islamic and conventional banks.

The majority of studies investigating AIS 'influence on financial sustainability were selected by companies based on their quotation on the country's financial market under study. The heterogeneity of the activities of these companies can be responsible for the inconsistent findings reported. Finally, it is hoped that at the end of this study, the reviewed will provide a way forward as a basis for further research in this field or in this particular area.

OBJECTIVE OF THE RESEARCH

To review if the use of accounting information system (AIS) has an impact in improving financial sustainability.

STUDY METHODOLOGY

The research is based on the assessment of the financial sustainability comprehensive information system, which has shown that a good AIS provides a sound financial statement for decision-making and enhances business performance. The qualitative approach of collecting data was used for the research, where some associated previous literatures were discussed and other secondary data were used to draw reliable conclusions based on empirical data.

Research Model

Figure 1 below represents the proposed conceptual research model for further studies based on the above and the highlight on the theoretical gaps to be addressed in this study. The following research model could be examined in future research.



FIGURE 1

CONCEPTUAL RESEARCH MODEL

DISCUSSION AND CONCLUSION

The goal of this study is to analyse the relationship between the Financial Sustainability and Accounting Information System on secondary statistics, which demonstrate that the system is of great significance and importance to companies and organizations. Via AIS, the management gathers and uses valuable information in decision-making and plan building to achieve organizational objectives and goals. However, in spite of the significance emergence of AIS, there is still inconsistent result that evaluates the effects of AIS on financial sustainability. In order to automate and incorporate their business transactions, productivity and competitive advantages, many organisations used the accounting information system. This review focuses on the impact on financial performance of companies of the accounting information system (AIS). The component of information technology (IT) in the accounting information system is expected to be one of AIS's major repercussions on companies, since this makes it easy for companies to monitor, record and report on financial and accounting reports.

It can be concluded that the application of the AIS remains an interesting topic to study, particularly in developing countries, due to its external validity. Several recent studies have shown that search gap continue to be troubling or resolved in the future. Very few studies have examined the impact of AIS on financial sustainability and our recommendation for further research into the link between the financial sustainability and accounting systems. Furthermore, future research could explore the direct relation between AIS and non-financial performance alignment. Researchers may analyse consumer satisfaction to assess the direct or moderating impact between the financial sustainability and non-financial variables that influence the

implementation of the AIS. Consequently, the correlation of AIS alignment with financial sustainability for future work is still widely debated. In order to address these problems, further studies on this issue can be carried out.

REFERENCES

- Abdul-Rashid, S. H., Sakundarini, N., Ghazilla, R. A. R., & Thurasamy, R. (2017). The impact of sustainable manufacturing practices on sustainability performance. *International Journal of Operations & Production Management*, 37, 182-204.
- Acharya, R. N., Kagan, A., & Lingam, S. R. (2008). Online banking applications and community bank performance. *International Journal of Bank Marketing*, 26(6), 418-439.
- Adenike, A., & Michael, A. (2016). Effect of Accounting Information System Adoption on Accounting Activities in Manufacturing Industries in Nigeria. Available at SSRN 2872047.
- Ahmad, A. Y. A. B. (2013). The Ability of Accounting Information Systems to support Profitability and Growth (Industrial Sector-Jordan Companies). *European Journal of Business and Management*, 5(19), 173-179.
- Akotey, J. O. (2013). The financial performance of life insurance companies in Ghana. *The Journal of Risk Finance*, 14(3), 286-302.
- Akotey, J. O., Sackey, F. G., Amoah, L., & Manso, R. F. (2013). The financial performance of life insurance companies in Ghana. *The Journal of Risk Finance*, 14(3), 286-302.
- Al-Hawari, M., & Ward, T. (2006). The effect of automated service quality on Australian banks' financial performance and the mediating role of customer satisfaction. *Marketing Intelligence & Planning*, 24(2), 127-147.
- Ali, B. J., & AlSondos, I. A. A. (2020). Operational Efficiency and the Adoption of Accounting Information System (Ais): A Comprehensive Review of the Banking Sectors. *International Journal of Management*, 11(6), 221-235.
- Ali, B. J., Bakar, R., & Omar, W. A. W. (2016a). The Critical Success Factors of Accounting Information System (AIS) And It's Impact on Organisational Performance of Jordanian Commercial Banks. *International Journal of Economics, Commerce and Management, United Kingdom*, IV(4), 658-677.
- Ali, B. J., Mohammad Salem (2020). Information Quality and Data Quality in Accounting Information System: Implications on the Organization Performance. *International Journal of Psychosocial Rehabilitation*, 24(5), 3258-3269.
- Ali, B. J., Omar, W. A. W., & Bakar, R. (2016b). Accounting Information System (AIS) and Organizational Performance: Moderating Effect of Organizational Culture. *International Journal of Economics, Commerce and Management*, IV(4), 138-158.
- Alsmadi, A. A., & Oudat, M. S. (2019). The effect of foreign direct investment on financial development: Empirical evidence from Bahrain. *Ekonomski pregled*, 70(1), 22-40.
- Alzoubi, A. (2012). The Effectiveness of the Accounting Information System Under the Enterprise Resources Planning (ERP). *Research Journal of Finance and Accounting*, 2(11), 10-18.
- Asmuni, I. (2020). Reliability Implementation of Accounting Information Systems in Improving Small and Medium Enterprises Financial Performance. Volume 83, 798-811.
- Barth, J. E. (2007). Customer engagement and the operational efficiency of wine retail stores. *International Journal of Wine Business Research*, 19(3), 207-215.
- Bigliardi, B. (2013). The effect of innovation on financial performance: A research study involving SMEs. *Innovation: Organization & Management*, 15(2), 245-256.
- Borhan, O., & Bader, O. (2018). Investigating the Impact of Accounting Information System on the Profitability of Jordanian Banks. *Research Journal of Finance and Accounting*, 9(18), 110-118.
- Chen, Y.-S. (2013). Lagged Effects Of Training On Financial Performance: Evidence From Longitudinal Data. *Global Journal of Business Research*, 7(1), 9-20.
- Chen, Y.-S., & Huang, I. (2013). Financial Performance of Audit Firms in Different Life Cycle Stages: Evidence from Taiwan. *The International Journal of Business and Finance Research*, 7(4), 43-62.
- Cherian, J., & Farouq, S. (2013). Does Effective Leadership Style Drive Financial Performance of Banks? Analysis in the Context of UAE Banking Sector. *International Journal of Economics and Finance*, 5(7), 105-114.
- Davoren, J. (2019). The Three Fundamental Roles of Information Systems in Business. Retrieved from <https://smallbusiness.chron.com/three-fundamental-roles-information-systems-business-23681.html>.

- DiPietro, R. B., Parsa, H. G., & Gregory, A. (2011). Restaurant QSC inspections and financial performance: an empirical investigation. *International Journal of Contemporary Hospitality Management*, 23(7), 982-999.
- Dragomir, V. D. (2010). Environmentally sensitive disclosures and financial performance in a European setting. *Journal of Accounting & Organizational Change*, 6(3), 359-388.
- Duncan, E., & Elliott, G. (2004). Efficiency, customer service and financial performance among Australian financial institutions. *International Journal of Bank Marketing*, 22(5), 319-342.
- Eljelly, A. M. A. (2013). Performance indicators of banks in a total Islamic banking system: the case of Sudan. *International Journal of Islamic and Middle Eastern Finance and Management*, 6(2), 142-155.
- El-Qirem, I. A. (2013). Critical Factors Influencing E-Banking Service Adoption in Jordanian Commercial Banks: A Proposed Model. *International Business Research*, 6(3), 229.
- Etim, E. (2011). Enhancing The Efficiency Of Accounting Information System In Organizations. *International Journal of Economic Development Research and Investment*, 2(2), 19-27.
- Gupta, S., Jain, P. K., & Yadav, S. S. (2011). Impact of MoU on financial performance of public sector enterprises in India. *Journal of Advances in Management Research*, 8(2), 263-284.
- Hamdan, M. W. (2012). The Impact of Accounting Information Systems (AIS) Development Life Cycle on Its Effectiveness And Critical Success Factors. *European Scientific Journal*, 8(6), 19-32.
- Hasan, H., & Ali, B. J. (2019). Investigating the relationship between inflation, Trade Openness, GDP and financial development in developing country: using regression approach. *IOSR Journal of Economics and Finance*, 10(5), 44-99.
- Hasan, H., Oudat, M. S., Alsmadi, A. A., Nurfaahadi, M., & Ali, B. J. (2021). Investigating The Causal Relationship Between Financial Development and Carbon Emission in The Emerging Country. *Journal of Governance And Regulation*, 10(2), 55-62.
- Hassan, M. K., & Halbouni, S. S. (2013). Corporate governance, economic turbulence and financial performance of UAE listed firms. *Studies in Economics and Finance*, 30(2), 118-138.
- Hassanein, A. A. G., & Khalifa, R. A. (2007). Financial and operational performance indicators applied to public and private water and wastewater utilities. *Engineering, Construction and Architectural Management*, 14(5), 479-492.
- Huy, P. Q., & Phuc, V. K. (2020). The impact of Public Sector Scorecard adoption on the effectiveness of accounting information systems towards the sustainable performance in Public Sector. *Cogent Business & Management*, 7(1), 1717718.
- Iwata, H., & Okada, K. (2011). How does environmental performance affect financial performance? Evidence from Japanese manufacturing firms. *Ecological Economics*, 70(9), 1691-1700.
- Johan, S., Siregar, H., Maulana, T. N. A., & Santosa, P. W. (2013). Key Financials Performance Independent versus Integrated: Empirical Evidence from Indonesia Financial Service Industry (2001-2011). *International Journal of Economics and Finance*, 5(1), 92-104.
- Joshi, M., Cahill, D., Sidhu, J., & Kansal, M. (2013). Intellectual capital and financial performance: an evaluation of the Australian financial sector. *Journal of Intellectual Capital*, 14(2), 264-285.
- Katchova, A. L., & Enlow, S. J. (2013). Financial performance of publicly-traded agribusinesses. *Agricultural Finance Review*, 73(1), 58-73.
- Kouser, R., Awan, A., & Shahzad, F. A. (2011). Firm Size, Leverage And Profitability: Overriding Impact Of Accounting Information System. *Business and Management Review*, 1(10), 58-64.
- Lonial, S. C., Tarim, M., Tatoglu, E., Zaim, S., & Zaim, H. (2008). The impact of market orientation on NSD and financial performance of hospital industry. *Industrial Management & Data Systems*, 108(6), 794-811.
- Meier, I. (2013). Financial flexibility and the performance during the recent financial crisis. *International Journal of Commerce and Management*, 23(2), 79-96.
- Mishra, A., Wilson, C., & Williams, R. (2009). Factors affecting financial performance of new and beginning farmers. *Agricultural Finance Review*, 69(2), 160-179.
- Moeller, K. (2009). Intangible and financial performance: causes and effects. *Journal of Intellectual Capital*, 10(2), 224-245.
- Molina-Azorín, J. F., Claver-Cortés, E., López-Gamero, M. D., & Tarí, J. J. (2009). Green management and financial performance: a literature review. *Management Decision*, 47(7), 1080-1100.
- Mondal, A. (2012). Intellectual capital and financial performance of Indian banks. *Journal of Intellectual Capital*, 13(4), 515-530.
- Moneva, J. M., & Ortas, E. (2009). Corporate environmental and financial performance: a multivariate approach. *Industrial Management & Data Systems*, 110(2), 193-210.

- Murthy, V., & Mouritsen, J. (2011). The performance of intellectual capital: Mobilising relationships between intellectual and financial capital in a bank. *Accounting, Auditing & Accountability Journal*, 24(5), 622-646.
- Oudat, M. S., & Ali, B. J. (2020). Effect of Bad Debt, Market Capitalization, Operation Cost Capital Adequacy, Cash Reserves on Financial Performance of Commercial Banks in Bahrain. *International Journal of Psychosocial Rehabilitation*, 24(1), 5979-5986.
- Oudat, M. S., & Ali, B. J. (2021). The Underlying Effect of Risk Management On Banks' Financial Performance: An Analytical Study On Commercial and Investment Banking in Bahrain. *Elementary Education Online*, 20(5), 404-414.
- Oudat, M. S., Ahmad, N., & Yazis, M. (2015). Examining Causality Relationships among Energy Consumption, Economic Growth and Islamic Banking System Performance in Jordan. *International Journal of Economics and Finance*, 7(6), 116-125.
- Oudat, M. S., Ali, B. J., & Qeshta, M. H. (2021). Financial Performance and Audit Committee Characteristics: An Empirical Study on Bahrain Services Sector. *Journal of Contemporary Issues in Business and Government*, 27(2), 4279.
- Schaufele, B., & Sparling, D. (2011). Regulation and the financial performance of Canadian agribusinesses. *Agricultural Finance Review*, 71(2), 201-217.
- Sharma, A., & Upneja, A. (2005). Factors influencing financial performance of small hotels in Tanzania. *International Journal of Contemporary Hospitality Management*, 17(6), 504-515.
- Sharma, M., & Timiti, U. (2004). Subsidy dependence and financial sustainability in development banks: A case study of a small pacific island country.
- Siew, R. Y. J., Balatbat, M. C. A., & Carmichael, D. G. (2013). The relationship between sustainability practices and financial performance of construction companies. *Smart and Sustainable Built Environment*, 2(1), 6-27.
- Töyli, J., Häkkinen, L., Ojala, L., & Naula, T. (2008). Logistics and financial performance: An analysis of 424 Finnish small and medium-sized enterprises. *International Journal of Physical Distribution & Logistics Management*, 38(1), 57-80.
- Vitezić, N., Vuko, T., & Mörec, B. (2012). Does financial performance have an impact on corporate sustainability and CSR disclosure-a case of Croatian companies. *Journal of Business Management*, 40, 48-55.
- Wang, Q., Lai, F., & Zhao, X. (2008). The impact of information technology on the financial performance of third-party logistics firms in China. *Supply Chain Management: An International Journal*, 13(2), 138-150.
- Wang, Y.-J. (2008). Applying FMCDM to evaluate financial performance of domestic airlines in Taiwan. *Expert Systems with Applications*, 34(3), 1837-1845.
- Wasiuzzaman, S. (2013). Comparative study of the performance of Islamic and conventional banks: The case of Malaysia. *Humanomics*, 29(1), 43-60.
- Wedyan, L. a. M. A.-R., Gharaibeh, A. T. S., Abu-dawleh, A. I. M., & Abu Hamatta, H. S. (2012). The Affect of Applying Accounting Information System on the Profitability of Commercial Banks in Jordan. *Journal of Management Research*, 4(2), 112-138.
- Ye, Z., & Hu, J. (2020, February). Internal Control of Enterprise Computer Accounting Information System in the Age of Big Data. In *The International Conference on Cyber Security Intelligence and Analytics* (pp. 315-321). Springer, Cham.
- Yusuf, Y. Y., Gunasekaran, A., Musa, A., El-Berishy, N. M., Abubakar, T., & Ambursa, H. M. (2013). The UK oil and gas supply chains: An empirical analysis of adoption of sustainable measures and performance outcomes. *International Journal of Production Economics*, 146(2), 501-514.
- Zarook, T., Rahman, M. M., & Khanam, R. (2013). Does the Financial Performance Matter in Accessing to Finance for Libya's SMEs? *International Journal of Economics and Finance*, 5(6), 11-19.
- Zeidan, M. J. (2012). Effects of Illegal Behavior on the Financial Performance of US Banking Institutions. *Journal of Business Ethics*, 112(2), 313-324.