# THE IMPACT OF EARNING MANAGEMENT AND SOCIAL AND ENVIRONMENTAL COSTS DISCLOSURE ON FINANCIAL PERFORMANCE: AN EMPIRICAL STUDY IN JORDAN

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## ABSTRACT

This research aimed to discover the moderating impact of earnings management between social and environmental costs disclosure on financial performance. To realize this purpose, this research employed a quantitative method by using primary data collected from the Amman Stock Exchange. This study used the questionnaire to collect the data from a sample of 127 companies. The Smart Partial Least Squares (PLS) is used to test the data. The results of the study show that the social and environmental costs disclosure positively and significantly impacted the financial performance of the firms. This was consistent with agency, legitimacy, and stakeholders' theories. This means that more disclosure about the cost of social and environmental information could create opportunities for firms. Also, earnings management was found to have a significant and positive effect on the relationship between social cost disclosure and the financial performance of the firms. And earnings management was found to have a significant and positive effect on the relationship between environmental cost disclosure and financial performance of the firms.

**Keywords:** Earnings Management, Social Cost Disclosure, Financial Performance, Environmental Cost Accounting, CSR, Amman Stock Exchange

#### **INTRODUCTION**

The social and environmental accounting phenomena developed with the need for reports for social accounting from communities close to those from financial markets (Gavurova et al., 2019; Gavurova et al., 2018). Financial information gathered by the framework of financial accounting was needed for this. Users of social accounting information will require details, helping them to determine whether the firm is socially and financially accountable. Green accounting and reporting are a recent practice, outside of social accounting, and has been relatively influenced by the absence of any compulsory codes or rules for compulsory reporting (Nuswantara & Pramesti, 2020). Therefore, in their annual financial reports, firms are voluntarily active in disclosing many corporate responsibility projects. Internationally, it seems that companies have gone further than those found in the literature on important topics (Al-Ramahi et al., 2014).

The concern exists here where the firm does not spend on environmental reporting due to a substantially weak knowledge of environmental concerns or a rise in the cost of environmental disclosure. According to Sutopo, et al., (2018), only a few studies have been conducted in the field of environmental accounting such as reporting and its impact on the firm's financial performance (Dvorský et al., 2019; Valaskova et al., 2018; Shahwan & Mohammad, 2016). As a result, most firms are beginning to invest more of their revenue in social programs, leading them to an ambiguous environmental accounting view.

There is a lengthy argument on the impact on businesses of green or environmental accounting, particularly in terms of firm financial performance. This topic highlights many similarities with Corporate Social Responsibility (CSR) inquiries (Huynh, 2020; Machmuddah & Utomo, 2020). The traditional financial case revealed the benefits of natural accounting for firms that accumulate the entities themselves to a restricted limit. Consequently, firms have the power to accept the disclosures of environmental accounting (Ik & Azeez, 2020). This is achieved by pushing firms to focus on reducing additional generation costs and expanding the loyalty and purchases of consumers or buyers. The influence of the empirical correlation of social and environmental costs on financial results is substantially overt in this context. The exploration of a constructive relationship between the two variables may also lead to an enormous dispute. While observational examinations on both dimensions showed differentiating outcomes, the current literature has less examined firm variance or found influential effects on the financial relation in environmental accounting. As a summary, this research seeks to investigate the impact on financial results of the disclosure of social and environmental costs.

Epstein & Buhovac, (2014) assumed that today' firms are becoming highly sensitive to environmental problems and the needs of partners and are seeking to turn into better citizens. Regardless of whether the inspiration is a worry for the partner pressures or monetary benefit, government guidelines, society, or the environment, the implication is that managers need to implement major reforms to respond with their environmental impact more adequately. In the current debate, the relation between social and environmental costs and firm efficiency remains inconclusive and provides further exploration for researchers, particularly in the context of energy companies.

Also, companies could have benefited from some benefits from creating and using environmental accounting, such as the strong regulation of environmental spending, which lead to gain the confidence of more consumers. Consequently, being the primary resources of information for shareholders and outside stakeholders such as government, employees, creditors, investors, customers, and others, higher salaries in long-term profitability and the disclosure of environmental information in annual reports are also heavily used by major corporations because of their reporting.

Cavaco & Crifo (2014) are motivated by the absence of a common view on the impact of disclosure of social and environmental costs on financial performance. Their findings indicate that integral human assets and market practices are related to financial performance. They also discovered that there is a positive relation between the company and substitutable environmental activity and financial efficiency, since efficiently using sustainability pushes new market openings and lower costs. Increased customer security would make the business socially competent and efficient. In any case, CSR does not contribute explicitly to improved financial performance; it is the result of the managers' moves that take into account both company growth and any social meeting (Zahari, Esa, Rajadurai, Azizan & Muhamad Tamyez, 2020; Cavaco & Crifo, 2014).

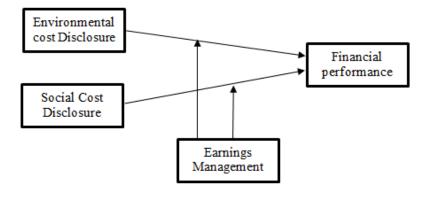
Many investigations undertaken on the relation between the disclosure of social and environmental costs and financial performance are unclear or inconsistent, indicating positive or, in some cases, negative results. Thus, this analysis incorporates the control of earnings as a moderating variable (Huynh, 2020). The Agency Theory and Stakeholders' Theory stressed that disclosure of social and environmental costs is a proper review mechanism for managing smart behavior, reducing the information asymmetry between supervisors and investors with conflicting premiums of both sets and reflecting actual financial performance. Based on the above explanation, this research aims to examine the impact of the disclosure of social and environmental costs on the financial performance of the companies listed in the Amman Stock Exchange with the moderating effect of earnings management.

## LITERATURE REVIEW

In agency theory, the relation between agencies is an agreement in which "an individual (the owner of economic resources) or more individuals run another person's (agent) (the one uses and controls these resources) work to perform or carry out some services on their behalf, including decision-making authority to the manager (agent)" (Hussain et al., 2020; Brahmana, Tan & You 2018; Shapiro, 2005). The purpose of this Agency Theory is to determine the debate over the separation of ownership and the board control of firm assets (Hussain, Mosa & Omran, 2018). Typically, managers have more adequate information than values. This information asymmetry unfavorably affects the owners' capacity to observe if their benefit is in fact properly served by the agents. Managers are keen on transient market implementation in the agency hypothesis, so they hope to achieve a positive valuation effect (Brahmana et al., 2018).

Two hypotheses are used to frame the instrumental stakeholder hypothesis, suggesting a positive relation between Corporate Social Performance (CSP) and Corporate Financial Performance (CFP). The resulting hypothesis is an ethical hypothesis under which managers are compelled to meet the needs of partners rather than construct the expectation of the company. This hypothesis is broader than that of shareholders who said that managers should broaden the estimate of investors (Pakawaru, Mayapada, Afdalia, Tanra & Afdhal, 2021; Shahwan, 2020; Dibia & Onwuchekwa, 2015). The hypothesis of instrumental shareholders suggests CSR, which builds the fulfillment of stakeholders and, consequently, financial performance.

Also, an appropriate company image and strengthened partnerships with different stakeholders may be modified to obtain funding to CED. It is argued that developing a friendly image is necessary for communicating with the impressions of investors. Interest in a proper business reputation can optimize the assets of shareholders. This will further foster the possession of unrivalled advantages in capital markets (Straka et al., 2016; Mesarc, 2018; Nawaz & Hassan, 2016; Shahwana & Almubaydeen, 2020). CSR activities provide speculators with a highly accurate risk evaluation while providing access to external support at the most conceivably reduced cost. The company is likely to advance and be in a flexible stock market situation to draw prospective buyers through the extended simplicity of results (Shahwana & Abdel-hamid, 2020). As such it is possible to focus on managers engaged in earnings management to build extremely strong environmental exposures seeking their benefit. For that as a structure that underlines social arrangements, the operations of the organization should be according to society's desires. The conceptual framework of this study is displayed in Figure 1.



## FIGURE 1 RESEARCH MODEL

Environmental accounting ensures that explicit environmental cost, such as transfer costs or liability expenses. Environmental accounting covers all costs and benefits generated from improvements to the methods or properties of the company, such as shifts in thinking and environmental impacts. Another feature is that the reports of accountants do not represent environmental accounting statistics, nor do accountants need to enforce them. Instead, they reflect any information with both clear and known money-related content used as a contribution to the decision-making of the firm, product planners, monetary specialists, and office administrators such as environmental accounting information users. It also draws attention to some type of data gathered and assessed by firms (Eze, Nweze & Enekwe, 2016).

The empirical research on the relation between disclosure of social and environmental costs and financial performance is not yet conclusive, as some studies have shown a negative relation while others have shown a positive relation. Some inquiries, however, revealed no relation at all. From a positive perspective, a proper relationship with customers, suppliers, and employees is important for the stability of the company when raising a few CSR owners, such as management skills or symbolic. The prestige and reputation of the company were identical to CSR. In this way, by increasing CSR disclosure to enhance competitive advantages, as a company builds its costs or expenses, such CSR activities will improve or increase the reputation of the firm; thus, long sustainability can improve financial results further (Diskiene, Pauliene & Ramanauskaite, 2019; Krajnikova, Smetankova & Behunova, 2019; Shahwan, 2018).

In addition, in 14 randomly-chosen Nigerian companies, Adediran & Alade (2013) examined the impact of social and environmental accounting on performance. Using regression analysis, the data obtained from the annual report was analyzed. This revealed a negative relation between environmental accounting and profits for the capital used and per share acquired. CSR and financial performance were investigated by Al Azeez, Sukoharsono & Andayani, (2019). They concluded that the social responsibility of a firm and the financial success of the company have an essentially positive relationship between the two and that the social performance of the company increases the gross profit rise. Also, Nor, Bahari, Adnan, Kamal & Ali (2016) have researched the influence of environmental information on financial performance in Malaysia, including the top 100 market-listed companies for 2011. Their studies revealed the existence in Malaysia of environmental disclosure activities.

Also, Cortez & Cudia, (2011) contextually studied the influence of environmental developments on their exhibition of financial performance by Japanese gadget corporations. In electronic test listed companies on the Tokyo Stock Exchange, they correlated corporate social success with profit. Despite the fall in profitability, their results centered on risk minimization activities in electronics firms.

In the context of Jordan as well, several prior studies focused on CSR in different perspectives (Qa'dan & Suwaidan, 2019; Hazaima, Low & Allen, 2017; Ghaleb, Abdulraheem, Qaderi, Almashaqbeh & Qasem, 2021). For example, Hazaima, et al., (2017) test the impact of corporate social responsibility disclosures on financial performance; their study adopts a quantitative methodological approach. They used a statistical analysis technique to tests three hypotheses, and the total population is 67 industrial companies listed in Amman Stock Exchange (ASE). Their results found that there is a negative correlation between CSR disclosures and the financial performance of industrial companies located in Jordan. Masoud & Halaseh, (2017), in an empirical analysis of Jordanian firms listed on the Amman Stock Exchange, examine the impact of corporate social responsibility and firm performance. They gather data from 107 firms during a 10-year period, 2002-2011, as a sample for the study. The statistical outcomes show that the FE model is more fit than the RE model since the Hausman test is significant. FE results revealed positive, but not significant relation with CSR, market-based performance (P/R, EPS, P/V) and accounting-based performance (ROA, ROE, and ROCE), whilst ROS ratio has a negative relationship. EPS ratio

stated a significant finding of the RE model showing that there is a negative relationship between CSR and accounting and market-based firm performance (ROA, ROS, P/R, and EPS), thus the Hausman test results reject the null hypothesis.

In contrast to the previous studies which focused on CSR disclosure and firm's performance and the reputation of the firms. This study employed earning management as a moderating variable based on the suggestion by Ayu, Gamayuni & Urbański, (2020) that suggested using earning management as a moderating variable in the relation between social and environmental costs disclosure to financial performance. Besides, there is a lack of studies that tested the effect of earning management as a moderating variable especially with the relation with CSR and a firm's performance. The hypotheses are formulated as follows:

H1: The social cost has a significant impact on the increase in financial performance.

*H2:* The environmental cost has a significant impact on the increase in financial performance.

*H3:* Earnings management has a significant impact as a moderator between the social cost disclosure and financial performance

*H4:* Earnings management has a significant impact as a moderator between environmental cost disclosure and financial performance.

## **RESEARCH METHODOLOGY**

By using the questionnaire to collect the data, and Smart PLS to analyze the data, this research adopted the quantitative approach. The total number of listed firms in ASE is the population for this analysis; according to the ASE accessed online in December 2020, there were 179 companies. The final sample was 127 companies. This study consisted of four variables. Earnings Management (EM), as defined by Hribar & Collins, (2002); Ali Shah, Butt & Hassan (2009) supported the use of cash flow-based methods for the assessment among all collections was endorsed. And they reported that the cash flow approach was favored by most analysts.

The disclosure of environmental cost requires disclosure of the management strategy that addresses environmental issues (for example, materials, vitality, water, biodiversity, outflows, effluents, and waste). In general, environmental priorities, policy, hierarchical responsibility, monitoring and growth and additional related data targets are applicable (Sustainability Reporting Guidelines, GRI).

The dimension of reasonability's social cost disclosure emphasizes the effect on affiliation it will have on the social systems through which it functions. External cost disclosure can be divided into five perspectives: product duty, society, human rights, tolerable work, and labor practices. Financial performance and environmental performance will be the information to be disclosed, including awareness, authoritative duty, extra logical data, observing, management approach, objectives, strategy, and additional conceptual details. Based on the relation of social viewpoints, each piece of information will be accounted for (Sustainability Reporting Guidelines, GRI). The rule scoring of GRI will be used in measurement if the firm showed the GRI based rule, (0.0) for no disclosure, giving (0.5) social materials, and (1.0) condition material.

Financial performance is the level at which a firm can operate its assets from its basic framework for achieving sustainable business and increasing profit. The financial performance factors to be evaluated are classified as the Return On Asset (ROA) measure used in this analysis as the financial performance. Indeed, many companies worldwide still work through financial strategies to improve their results (Izarikova, 2014; Yousif, 2010).

#### RESULTS

The Partial Least Squares (PLS) were used to assess the model of this research; it calculates and predicts parameters that affect and cause relations *via* testing both the inner model and outer model. The estimate of AVE as shown in Table 1 in every variable was higher than 0.50. Also, CR and Cronbach's Alpha are bigger than 0.70. Thus, it can well be assumed that convergent validity has been met given the findings. These findings are presented in Table 1.

Table 1 ALGORITHM							
Construct	Cronbach's Alpha	Composite Reliability	(AVE)				
CFP	0.872	0.862	0.661				
ECD	0.834	0.796	0.635				
EM	0.796	0.781	0.718				
SCD	0.981	0.854	0.701				

To assess the discriminant validity square root of AVE was tested on the off chance that the estimation of the construct or a particular variable was bigger than one 0.70. In the context of the discriminant validity square root of AVE (Table 2), it is concluded that if the discriminant validity in each indicator was higher than 0.70 in any case of indiscernible conditions from the past factor loading previously assessed, the estimate may be less than 0.70 for each factor. However, this is known to be substantial at the same time since the variable has a higher value than 0.5. Yet, this is known to be essential at the same time, since the average variance extracted more than 0.50. However, the reliability test was done using two strategies: composite reliability estimation, which was supposed to be higher than 0.70, and Cronbach's Alpha, which was higher than 0.60. As seen in the analysis in Table 1, all variables had the Cronbach's Alpha estimate, which was more than that of the Cronbach's Alpha 0.60. The CR values were better than 0.70. The information and effects of the results were reliable and safe. Furthermore, all the above results were consistent with the suggestions of Hair et al., (2013); Sekaran & Bougie (2010); which mentioned that the Cronbach's Alpha should be more than 0.60, composite reliability should be more than 0.70, and the AVE must be higher than 0.50.

Table 2 DISCRIMINANT VALIDITY- SQUARE ROOT OF AVE							
Construct	CFP	ECD	EM	SCD			
CFP	1.0000						
ECD	0.4931	1.0000					
EM	-0.5523	-0.4537	1.0000				
SCD	0.7821	0.3613	-0.5827	1.0000			

There has been a direct impact as explained in Table 3. In hypothesis testing, when the path of coefficient resulted from the p-value < 5% (0.05) or T-statistics was higher than (1.96), the alternate hypothesis may be supported. Besides that, if the estimation of p-value>5% (0.05), or T-statistics was less than 1.96, at that point, the alternative hypothesis was not supported. About the influence of SCD on CFP proposed in hypothesis H<sub>1</sub>, the result shows that there is a significant and positive relationship between SCD and CFP at t-value= 5.7621 p-value=0.0000 < (0.05). Hence the hypothesis H<sub>1</sub> is supported. The result simply implies that an increase in the value of SCD will significantly influence the increase in CFP. In respect to the hypothesis H<sub>2</sub> about the impact of ECD

on CFP, the result is found to positive and significant at t-value= (5.0126) p-value=0.0000 < (0.05). It can be concluded that hypothesis H<sub>2</sub> is accepted. In addition, the moderating effect of EM determined between SCD and CFP for hypothesis H<sub>3</sub> was found significant with a positive at t-value= (3.9986) p-value=0.0000 < (0.05). This means EM influences the relation between SCD and CFP, and this means hypothesis H<sub>3</sub> is accepted. As regards hypothesis H<sub>4</sub>, the moderating impact of EM on the relation between ECD and CFP is significant and positive at t-value= 4.3621 p-value=0.0000 < (0.05), thus, hypothesis 4 is accepted.

Table 3 T-TEST DIRECT EFFECT								
Construct	Original Sample	Sample Mean	Standard Deviation	<b>T-Values</b>	<b>P-Values</b>			
$SCD \rightarrow CFP$	0.5102	0.4892	0.0616	5.7621	0.0000			
$ECD \rightarrow CFP$	0.3221	0.3010	0.0704	5.0126	0.0000			
SCD*EM→CFP	0.2995	0.3195	0.0575	3.9986	0.0000			
ECD*EM → CFP	0.2982	0.2740	0.0664	4.3621	0.0000			

## **Discussion and Conclusion**

The findings of this study indicate a relation between the disclosure of social and environmental costs and the financial performance of the firm moderated by earnings management. Based on the findings, the direct impact was evaluated by using a validation test based on relevant prior research.

This relation between the disclosure of social costs and financial performance could be clarified by firms seeking to minimize the implied costs of social responsibility. This will improve the implicit costs, which add to a strategic disadvantage (decline in profits). As a result, SCD and CSR strengthen the connection with stakeholders. This relation increases the competitive advantage and enhances financial performance. In general, social and environmental costs disclosure is an action that provides more reliable risk evaluation to shareholders and stakeholders and also provides access to foreign funding at the most reducing costs possible regarding the provision of more potential stakeholders through improved simplicity of information. Also, the effect of social costs disclosure and environmental cost disclosure on the financial performance of the firm will influence earnings management. Probably the managers use the disclosure as a tool of earnings management to control the profit of the firm, and this is consistent with the agency theory.

This research aimed at exploring the impact of social and environmental costs reporting on financial performance moderated by earnings management based on the literature available and relevant theories including validity, legitimacy, agency, and stakeholders. The research revealed the effect of social and environmental costs disclosure on financial performance moderated by earnings management. Thus, social, and environmental reporting has a strong impact on growing corporate performance, along with the theories of instrumental owners, organizations, and legitimacy. This ensures that more social and environmental information reporting expenses will provide a space for a company to improve its image. As a result, most companies provide environmental information to explain their needs and practices.

Moreover, the cultural concern will, in general, be recognized as a considerable corporate responsibility to communicate among organizations and society concerning social obligation and sustainability. Besides, cultural considerations would generally be recognized as a significant corporate duty to convey social responsibilities and sustainability within firms and community. The company's social and environmental disclosure can also be viewed as a legitimate and social contribution provided by the firm. However, due to insufficient analysis of the actual economy, the

management has the opportunity to take optional actions over the salaries to increase their benefit. In addition, earnings management will accumulate when managers misled other stakeholders about the overall national income of the company especially in light of the COVID-19 pandemic.

The limitations of the research are as follows: the current research did not take mediation in the research and proposed that further research might include a mediator. Also, it only considers two predictors and excludes other variables that influence financial performance, so more indicators might be used in future studies. Also, the researchers should focus on studying how the managers of the companies have benefited from the COVID-19 pandemic and how they use it as an earnings management tool and its impact on the financial and non-financial performance of companies.

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#### REFERENCES

- Adediran, S., & Alade, S. (2013). The impact of environmental accounting on corporate performance in Nigeria. *European Journal of Business & Management*, 5(23), 141–152.
- Al Azeez, H.A.R., Sukoharsono, E.G., & Andayani, W. (2019). The impact of board characteristics on earnings management in the international oil and gas corporations. Academy of Accounting and Financial Studies Journal, 23(1), 1-26.
- Al Ramahi, N., Alaboud, E., Owais, W., Alrefae, K., & Shahwan, Y. (2014). The results of applying the principles of corporate governance in corporations listed on the first market in the Amman stock exchange. *Research Journal of Finance and Accounting*, 5(14), 41–53.
- Ali Shah, S.Z., Butt, S.A., & Hassan, A. (2009). Corporate governance and earnings management an empirical evidence form Pakistani listed companies. *European Journal of Scientific Research*, 26(4), 624–638.
- Al-Ramahi, N., Barakat, A., & Shahwan, Y. (2014). The impact of corporate governance principles application on financial performance of public shareholding companies listed in Amman stock exchange. *European Journal* of Accounting Auditing and Finance Research, 2(6), 100–117.
- Ayu, M., Lindrianasari, Gamayuni, R.R., & Urbanski, M. (2020). The impact of environmental and social costs disclosure on financial performance mediating by earning management. *Polish Journal of Management Studies*, 21(2), 74-86.
- Brahmana, R.K., Tan, M.Y., & You, H.W. (2018). Corporate environmental disclosure and earning management. *International Journal of Green Economics*, 12(3-4), 308–321.
- Cavaco, S., & Crifo, P. (2014). CSR and financial performance: Complementarity between environmental, social and business behaviours. *Applied Economics*, 46(27), 3323–3338.
- Cortez, M.A.A., & Cudia, C.P. (2011). Sustainability and firm performance: A case study of Japanese electronics companies. *Ritsumeikan International Affairs*, 10, 321–339.
- Dibia, N.O., & Onwuchekwa, J.C. (2015). Determinants of environmental disclosures in Nigeria: A case study of oil and gas companies. *International Journal of Finance and Accounting*, 4(3), 145-152.
- Diskiene, D., Pauliene, R., & Ramanauskaite, D. (2019). Relationships between leadership competencies and employees' motivation, initiative and interest to work. *Montenegrin Journal of Economics*, 15(1), 113–129.
- Dvorský, J., Petráková, Z., & Polách, J. (2019). Assessing the market, financial, and economic risk sources by Czech and Slovak SMEs. *International Journal of Entrepreneurial Knowledge*, 7(2), 30–40.
- Epstein, M.J., & Buhovac, A.R. (2014). A new day for sustainability. Strategic finance, 96(1), 25-35.
- Eze, J.C., Nweze, A., & Enekwe, C. (2016). The effects of environmental accounting on a developing nation: Nigerian experience. *European Journal of Accounting, Auditing and Finance Research, 4*(1), 17–27.
- Gavurova, B., Kocisova, K., Behun, M., & Tarhanicova, M. (2018). Environmental performance in OECD countries: A non-radial DEA approach. *Acta Montanistica Slovaca*, 23(2), 206–215.
- Gavurova, B., Kovac, V., Drabik, P., & Gomory, M. (2019). Exploration of disparities in environmental activities of European countries from year 2006 to year 2016. *Acta Montanistica Slovaca*, 24(4), 376–390.
- Ghaleb, B.A.A., Qaderi, S.A., Almashaqbeh, A., & Qasem, A. (2021). Corporate social responsibility, board gender diversity and real earnings management: The case of Jordan. *Cogent Business & Management*, 8(1), 1883222.

- Hair, J.F., Hult, G.T.M., Ringle, C., & Sarstedt, M. (2013). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). New York: Sage Publications.
- Hazaima, H., Low, M., & Allen, J. (2017). Impact of corporate social responsibility disclosures on financial performance–a Jordanian case study. *International Journal of Critical Accounting*, 9(5-6), 433–459.
- Hribar, P., & Collins, D.W. (2002). Errors in estimating accruals: Implications for empirical research. Journal of Accounting Research, 40(1), 105–134.
- Hussain, H.I., Kot, S., Thaker, H.M.T., & Turner, J.J. (2020). Environmental reporting and speed of adjustment to target leverage: Evidence from a dynamic regime switching model. *Organizacija*, 53(1), 21–35.
- Hussain, M.S., Mosa, M.M., & Omran, A. (2018). The impact of owners behaviour towards risk taking by Pakistani banks: Mediating role of profitability. *Journal of Academic Research in Economics*, 10(3), 41–64.
- Huynh, Q.L. (2020). A triple of corporate governance, social responsibility and earnings management. *Journal of Asian Finance, Economics and Business*, 7(3), 29–40.
- Ik, M., & Azeez, A.A. (2020). Organisational green behavioural change: The role of change management. *International Journal of Entrepreneurial Knowledge*, 8(1), 34–48
- Izarikova, G. (2014). Using of multi-criterial evaluation methods to assess position of the object in the market. *Acta Logistica*, 1(3), 17-22.
- Krajnikova, K., Smetankova, J., & Behunova, A. (2019). Building sustainability and building information modelling. *Acta Tecnología*, 5(1), 1–4.
- Machmuddah, Z., Sari, D.W., & Utomo, S.D. (2020). Corporate social responsibility, profitability and firm value: Evidence from Indonesia. *Journal of Asian Finance, Economics and Business*, 7(9), 631–638.
- Masoud, N., & Halaseh, A. (2017). Corporate social responsibility and company performance: An empirical analysis of Jordanian companies listed on Amman stock exchange. *Journal of Education, Society and Behavioural Science*, 1-26.
- Mesarc, P. (2018). Increase of efficiency of logistics flows in sharing economy conditions of a specific company. *Acta Logistica*, 5(3), 65–69.
- Nawaz, M.A., & Hassan, S. (2016). Tourism in South Asia. International Journal of Economic Perspectives, 10(4), 591–601.
- Nor, N.M., Bahari, N.A.S., Adnan, N.A., Kamal, S.M.Q.A.S., & Ali, I.M. (2016). The effects of environmental disclosure on financial performance in Malaysia. *Proceedia Economics and Finance*, 35, 117–126.
- Nuswantara, D.A., & Pramesti, D.A. (2020). Corporate social responsibility regulation in the Indonesian mining companies. *Journal of Asian Finance, Economics and Business*, 7(10), 161–169.
- Pakawaru, M.I., Mayapada, A.G., Afdalia, N., Tanra, A.A.M., & Afdhal, M. (2021). The relationship of Corporate Social Responsibility (CSR) disclosure and earnings management: Evidence from Indonesia. *Journal of Asian Finance, Economics and Business*, 8(2), 903–909.
- Qa'dan, M.B.A., & Suwaidan, M.S. (2019). Board composition, ownership structure and corporate social responsibility disclosure: The case of Jordan. Social Responsibility Journal, 15(1), 28-49.
- Sekaran, U., & Bougie, R. (2010). Research methods for Business: A skill-building approach. Hoboken, NJ: John Willey & Sons.
- Shahwan, Y. (2018). The mediating effect of investment decisions and financing decisions on the influence of capital structure against corporate performance: Evidence from Jordanian listed commercial banks. Academy of Accounting and Financial Studies Journal, 22(6), 1–20.
- Shahwan, Y., & Mohammad, N.R. (2016). Descriptive Evidence of Corporate Governance & OECD principles for compliance with Jordanian Companies. *Journal Studia Universitatis Babes-Bolyai Negotia*, 61(3), 99-116.
- Shahwana, Y. (2020). The effect of OECD principles of corporate governance on social responsibility accounting. *International Journal of Innovation, Creativity and Change, 11*(2), 418–431.
- Shahwana, Y., & Abdel-Hamid, O. (2020). The impact of social responsibility disclosure in reducing the risk in Jordanian Commercial Banks. *Research in World Economy*, 11(3), 142–150.
- Shahwana, Y., & Almubaydeen, T.H. (2020). Effects of board size, board composition and dividend policy on real earnings management in the Jordanian listed industrial firms. *International Journal of Financial Research*, 11(4), 195–202.
- Shapiro, S.P. (2005). Agency theory. Annual Review of Sociology, 31, 263-284.
- Straka, M., Cehlar, M., Khouri, S., Trebuna, P., Rosova, A., & Malindzakova, M. (2016). Asbestos exposure and minimization of risks at its disposal by applying the principles of logistics, *Przemysl Chemiczny*, 95(5), 963– 970.
- Sutopo, B., Kot, S., Adiati, A.K., & Ardila, L.N. (2018). Sustainability Reporting and value relevance of financial statements. *Sustainability*, 10(3), 678.
- Valaskova, K., Kliestik, T., & Kovacova, M. (2018). Management of financial risks in Slovak enterprises using regression analysis. *Oeconomia Copernicana*, 9(1), 105–121.

- Yousif, K. (2010). The integration between the financial and non-financial measures for achieve monitoring on the operating process. *Tanmiyat Al-Rafidain*, *32*(99), 275–297.
- Zahari, A.R., Esa, E., Rajadurai, J., Azizan, N. A., & Muhamad Tamyez, P. F. (2020). The effect of corporate social responsibility practices on brand equity: An examination of Malaysia's top 100 brands. *Journal of Asian Finance, Economics and Business*, 7(2), 271–280. https://doi.org/10.13106/jafeb.2020.vol7.no2.271