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What are the Determinants of Appointing an External Auditor with Forensic Accounting Services? A Cross-Country Study

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Abstract

Background: This paper presents a cross-country study, including Saudi and Jordan firms, analysing the effect of firm and board characteristics on the decision-making process of appointing an external auditor with forensic accounting services. By understanding the determinants, organisations can make informed decisions about when and how to bring in forensic auditors, thus strengthening their financial integrity, reducing risks, and improving stakeholder confidence.

Objective: The main objective was to understand the factors influencing the appointment of an external auditor with forensic accounting services.

Methodology: The research uses a cross-sectional design and data from annual financial reports of companies listed on the Tadawul and ASE in 2021. The population includes 260 audit offices and companies from the industrial and service sectors. Logistic regression analysis examined the association between explanatory factors and the likelihood of binary dependent variables. This research paper uses statistical software for data analysis (STATA) as the approach to data analysis.

Results: The study's results showed that firm size, age, and corporate governance strategy determine the appointment of an external auditor. Using sub-samples suggests that leverage is an

essential determinant of appointing external auditors with forensic accounting services in Jordan but not in Saudi Arabia. Also, firm size, firm age, and board size are essential determinants of appointing external auditors with forensic accounting services in Saudi Arabia but not Jordan.

Unique Contribution: Information in this study could be useful in guiding scholars in their study of organisational behaviour.

Recommendation: Further studies could explore the role of corporate governance mechanisms in enhancing the appointment of external auditors with forensic accounting services.

Keywords: Forensic Accounting, External Auditor, Firm Characteristics, Board Characteristics.

Introduction

Numerous fraud cases have been reported, including WorldCom and Arthur Andersen filing for bankruptcy. Along with the introduction of the legislation known as SOX and increased attention in the accounting field, this has led to a growing recognition of the importance of forensic accounting (Watters et al., 2007). Judicial entities do not exclusively engage forensic experts in accounting. These professionals can also be seen in several industries, including businesses, legal companies, financial institutions, and governmental agencies (Vidas et al., 2014). Therefore, the primary research objective is to gain a comprehensive understanding of the factors influencing the appointment of an external auditor with forensic accounting services.

When there are first signs of fraudulent behaviour, it is prudent to consider hiring an investigator from a forensic accounting firm for an evaluation (Golden et al., 2011). This study investigates the influence of firm and board characteristics on selecting an external auditor offering forensic accounting services for firms listed on the Saudi Stock Exchange (Tadawul) and Amman Stock Exchange (ASE) in the year 2021.

Financial insurance and law enforcement companies often hire forensic accountants to investigate financial transactions and identify illegal actions. Forensic accountants have many specialised skills and combine their knowledge with investigative abilities to assess fraudulent activity effectively (Vidas et al.,2014). Forensic accounting services are increasingly used to prevent fraudulent activities in the future through risk assessments and strengthening internal controls (Newman et al., 2023). The principal goal of this study is to explore the firm's characteristics that impact the decision to appoint an external auditor with forensic accounting services.

This study is important for companies to understand which characteristics impact the decision to appoint an external auditor with forensic accounting services. Also, for a firm’s audit, it is necessary to assess which characteristics impact this decision to appoint, including selecting the right auditor for the job. In the case of regulators, the research could help them to develop more effective policies for making such decisions. In addition, this study addresses a new topic in forensic accounting, which could be significant because it can help advance the field and increase its effectiveness.

Literature and Hypotheses Development

Firm Characteristics and Forensic Accounting

This section presents hypotheses about four firm characteristics that impact the decision to appoint an external auditor with forensic accounting services. These characteristics include firm size, profitability, leverage, and age. More specifics regarding these features are provided below.

Firm Size

Many corporate criminal crimes are perpetrated inside expansive and complex organisational structures. Nachum (2004) also noted that the firm size is a natural logarithm of total assets. Furthermore, it should be noted that local authorities do not have specific regulations or guidelines regarding forensic accounting services. However, local authorities may be compelled to employ such services in the event of a directive from the government (Bovaird & Downe, 2006). Therefore, the following hypothesis will be tested:

H1: Firm size impacts the decision to appoint an external auditor with forensic accounting services.

The Firm Profitability (ROA)

Nasiru et al. (2020) found that the use of return on assets as a metric for evaluating the performance of organisations has a significant impact on the field of forensic accounting. According to Spathis et al. (2002), companies with a minimal inventory turnover ratio, poor ROA, and low Z-scores are more likely to commit financial statement fraud. Therefore, the following hypothesis will be tested:

H2: ROA impacts appointing an external auditor with forensic accounting services.

The leverage

Leverage refers to a firm utilising debt to fund its operations (Abdullatif et al., 2019). According to Taha et al. (2023), the presence of leverage affects the lawsuit risks for firms. Therefore, the following hypothesis will be tested:

H3: Leverage impacts appointing an external auditor with forensic accounting services.

Firm Age

Shumway (2001) noted that Firm Age is often understood as the cumulative years from its establishment, serving as a measure of the firm's duration of existence. New and innovative businesses may face challenges in attracting and retaining highly skilled accounting firms due to the increased costs associated with compliance requirements imposed by SOX (Watters et al., 2007). Therefore, the following hypothesis will be tested:

H4: Firm age impacts appointing an external auditor with forensic accounting services.

Board Characteristics and Forensic Accounting

This section presents hypotheses about three board characteristics that impact the decision to appoint an external auditor with forensic accounting services. This study may describe the form of a board from various aspects: board size, board independence, and board meetings. More details regarding these features are provided below.

Board Size

Board size indicates the aggregate number of members of the Board of Directors (Cheng,2008). There is no such thing as the perfect size for a board, but the size of a board should be determined by its efficacy functioning (Conger et al., 1998). Therefore, the following hypothesis will be tested:

H5: Board Size impacts the decision to appoint an external auditor with forensic accounting services.

The board independence

Board independence refers to the percentage of outside members to the size of the board (Sanda, 2011). Therefore, Baysinger and Butler (2019) found that the ideal composition of a board of members consists of a balanced combination of internal and external members, each with distinct expertise and experience that contributes to the board's overall effectiveness. Therefore, the following hypothesis will be tested:

H6: Board Independence impacts the decision to appoint an external auditor with forensic accounting services.

The Board Meeting

Vafeas (1999) noted that the board meeting is held annually. Therefore, boards that recognise the involvement of a forensic accountant in detecting and preventing fraud often establish a robust internal control system. This proactive approach positively impacts corporate governance (Nkama & Onoh, 2016). Based on the above, the following hypothesis will be tested:

H7: The Board Meeting impacts the decision to appoint an external auditor with forensic accounting services.

Research Methodology

Data and population

This investigation focuses on the impact of firm and board characteristics on appointing an external auditor with forensic accounting services in Saudi Arabia and Jordan. The research uses a cross-sectional design and data from annual financial reports of companies listed on the Tadawul and ASE in 2021. The population includes 260 audit offices and companies from the industrial and service sectors.

Research model

Logistic regression analysis was used to examine the association between explanatory factors and the likelihood of binary dependent variables (Hosmer et al., 2013). The general form of logistic regression is as follows:

Y Logit FAS = α+β1firm's Size + β2 Firm Profitability (ROA)+ β3 Leverage + β4 firm age + β5 Board size + β6 Board Independence + β7 Board Meeting +e

Y = Audit Firm with Forensic Accounting Service (FAS)

α = Constanta, ß = Regression Coefficient,X1 = firm's Size,X2 = Firm Profitability (ROA)

, X3 = Leverage, X4 = Firm Age, X5 = Board Size, X6 = Board Independence

, X7= Board Meeting, e = error

This research paper uses statistical software for data analysis (STATA) as the approach to data analysis.

Research Variables

Dummy variables are binary variables that take values of 1 and 0. A value of 1 is assigned if the service is offered and 0 if not. They are used in the logit model as a regressed variable. The size of a firm can be determined by its total assets, and its profitability can be calculated using the net profit on total assets. Leverage can be determined by dividing the total debt by total assets. The age of a firm can be determined from the time since its founding or listing. All the data are publicly available and obtained from Tadawul and ASE. The data on board size, board independence, and board meetings are obtained from both Tadawul and ASE and annual reports. Table 1 shows the measurements for the study variables.

Table 1. Measurement of variables

Variable	Description	Source
EAFSA	A dummy variable, the external audit with forensic accounting services, is measured as 1 and 0; otherwise	(Lovric, 2011)
Firm Size	The natural logarithm of total assets	(Nachum, 2004)
ROA	Net profit divided by total assets.	(Nasiru et al., 2020)
Leverage	Total debt divided by total assets	(Abdullatif et al., , 2019)
Firm Age	Since company founding	(Shumway,2001)
Board Size	The number of members on a board	(Cheng,2008).
Board Independence	The percentage of outside members to the size of the board.	(Sanda,2011)

Board Meetings	The number of meetings that are held annually	(Vafeas,1999)

Data Analysis and Results

Descriptive Statistics

The descriptive statistics for the various variables in the dataset are shown in Table 2, Table 3, and Table 4. The descriptive statistics were calculated using STATA 14.2 edition. Two distinct forms of descriptive statistics were used. The initial phase involved undertaking a descriptive analysis containing measures such as the mean, standard deviation, minimum, and max. The other test was the tabulation examination, which was used to analyse the nominal data.

Table 2. Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Q1	Median	Q3	Min	Max
Firm Size	208	8.421	2.448	16.622	18.361	20.736	12.856	22.124
ROA	213	1.095	3.576	0.162	0.794	0.199	6.21	29.289
Leverage	224	12.758	22.407	0.389	0.652	18.734	0.007	99.829
Firm Age	224	3.339	0.532	20	30	43	7	83
Board Size	219	8.014	1.878	7	8	9	4	13
Board Independence	195	0.415	0.133	2	2	4	1	7
Board Meeting	224	5.107	3.447	2	5	7	1	22

Table 3. Tabulation of EAFSA

EAFSA	Freq.	Per cent	Cum.
0	47	20.98	20.98
1	177	79.02	100.00
Total	224	100.00	

Table 5. Tabulation of Country

Country	Freq.	Per cent	Cum.
0	73	32.59	32.59
1	151	67.41	100.00
Total	224	100.00	

As shown in Table 3 and Table 4, both variables have a binary nature. In Table 3, it is indicated that audit companies have a forensic accounting service value of 1; otherwise, a value of 0. It notes the highest percentage recorded as 79.02 for external audits with forensic accounting services, whereas 20.98% for external audits with non-forensic accounting services. Table 4 depicts a value of 1 for the Saudi firm and 0 for the Jordan firm. It appears that there are 151 Saudi firms and 73 Jordan firms in the dataset. Therefore, the mean firm size is nearly 18.421, and the standard deviation is recorded as 2.448, indicating a relatively even distribution of firm size within the

market. The minimum value of firm size is 12.856 for small companies, and the maximum is 22.124 for the biggest companies in the sample.

As is apparent from Table 2, the mean value of firm profitability (ROA) for the 224 companies listed in the Saudi or Jordan market was 1.095. In the context of ROA, a standard deviation of 3.576 indicates that the mean value is less than the standard deviation. So, the 25th percentile is at 0.162, whereas the 75th percentile is at 0.199, with the minimum recorded at -6.213 and the maximum being 29. 289. In the context of leverage, a standard deviation of 22.407 indicates that the mean value is less than the standard deviation. So, the 25th percentile is at 0.389, whereas the 75th percentile is at 18.734, with the minimum recorded at 0.007 for low debt and the maximum at 99.829 for higher debt.

Also, the mean value of firm age is nearly 3.339, with a standard deviation of 0.532, indicating a wide range of firm ages. The minimum value of firm age represents 7 for the younger firm, whereas the maximum value of firm age represents 83 for the older firm. The results, as seen in Table 2, show that the average board size is nearly 8.014, and the standard deviation is registered at 1.878, which indicates that the size of boards of directors for companies varies significantly from the average board size. The minimum value for a small board size is 4, and the maximum value for a large board size is 13 in the dataset.

Therefore, the mean of board independence is close to 0.415, and the standard deviation is registered as 0.133, indicating a significant range of board independence. The minimum value for small board independence is 1, and the maximum value for large board independence is 7 for companies in the dataset. Lastly, as shown in Table 2, the mean number of board meetings is nearly 5.107, and the standard deviation is 3.447. There is a significant variation in the number of board meetings companies hold in the dataset. The minimum value for a board meeting is 1 a year, and the maximum value for a board meeting is 22 for a large board.

Pairwise Correlations Analysis

To evaluate the correlation between external auditing and forensic accounting services (EAFSA), it is necessary to examine the characteristics of the firms and boards. The research used Pairwise correlation analysis to determine the correlation coefficients between every characteristic and all the other characteristics in the data set (Yu &Liu, 2003).

The findings presented in Table 5 indicate a lack of significant correlations among the studied variables. The highest correlation value (0.486) is between leverage and ROA, and the highest positive correlation is 0.144 between leverage and EAFSA. On the other hand, there is a significant negative correlation of -0.136 between EAFSA and firm size.

Multicollinearity Tests

Table 5. Pairwise Correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1-EAFSA	1.000							
2-Firm Size	-0.136	1.000						
3-ROA	0.097	-0.167	1.000					

4-Leverage	0.144	-0.184	0.486	1.000				
5-Firm Age	-0.105	0.007	-0.030	-0.173	1.000			
6- Board Size	0.095	-0.204	0.124	0.191	0.102	1.000		
7- Board Independence	-0.099	0.085	-0.034	-0.174	0.007	-0.119	1.000	
8- Board Meetings	0.091	-0.123	0.319	0.476	-0.039	0.179	-0.044	1.000

The investigation used variance inflation factors (VIFs) to assess the presence of multicollinearity among independent variables. None of the variable inflation factors (VIF) above 0.10 were detected in the data. As shown in Table 6, the highest VIF value recorded was 3.864, suggesting that there is no significant issue with multicollinearity.

Table 6. Variance Inflation Factor

Independent variables	**VIF**
Leverage	3.864
ROA	1.877
Board Meetings	1.407
Board Size	1.124
Board Independence	1.103
Firm Size	1.076
Firm Age	1.026
Mean VIF	2.105

Logistic Regression Analysis

Logistic regression is a statistical technique used to model the relationship between a dependent variable and one or more independent variables, allowing for non-linear relationships (Hosmer et al., 2013). Table 7 displays the results of the logistic regression.

Table 7. Logistic Regression for Saudi Arabia and Jordan

EAFSA	Odd Ratio.	St.Err.	t-value	p-value	95% Conf	Interval	Sig
Firm Size	0.783	0.115	-2.32	0.033	0.470	0.020	**
ROA	12.702	1.644	1.40	0.122	0.681	5.764	
Leverage	1.229	0.104	1.27	0.046	0.004	0.409	**
Firm Age	0.358	0.446	-1.84	0.021	1.902	0.153	**
Board Size	1.398	0.150	2.03	0.026	0.040	0.630	**
Board Independence	0.298	2.255	-0.54	0.591	5.632	3.209	
Board Meetings	1.028	0.096	0.28	0.774	0.161	0.216	
Constant	2.301	4.259	0.15	0.845	7.513	9.180	
Pseudo r-squared	0.199		Number of obs		125		
Chi-square	17.088		Prob > chi2		0.029		
Country	Included						

**** p<.01, ** p<.05, * p<.1*

Note: The data has been treated as 99.5% to control the effect of outliers.

As shown in Table 7, firm size demonstrated a significant value of 0.033. There is a negative coefficient sign, which indicates that the probability of increasing the firm size can decrease the probability of appointing an external auditor with forensic accounting services. Also, a non-significant value of firm profitability (ROA) is 0.122. There is a positive coefficient sign, which indicates the probability of higher firm profitability can increase the probability of appointing an external auditor with forensic accounting services.

As seen in Table 7, the significant positive value of leverage is 0.046, which might indicate that the probability of higher leverage can increase the probability of appointing an external auditor with forensic accounting services. Therefore, in Table 8, the significant value of firm age is 0.021, which might indicate that the probability of increasing the firm age can decrease the probability of appointing an external auditor with forensic accounting services.

As is apparent from Table 7, the sig value of board size is 0. 026. There is a positive coefficient sign, which indicates the probability that a higher board size can increase the probability of appointing an external auditor with forensic accounting services. Moreover, there is a non-significant value of 0.591 for board independence. There is a negative coefficient sign, which indicates that the probability of increasing the board independence can decrease the probability of appointing an external auditor with forensic accounting services—lastly, a non-significant value of 0.774 for board meetings. There is a positive coefficient sign, which indicates that the probability of higher board meetings can increase the probability of appointing an external auditor with forensic accounting services.

Table 8 The Logistic Regression Analysis for the Sub-Sample (Saudi Arabia).

EAFSA	Odds Ratio.	St.Err.	t-value	p-value	95% Conf	Interval	Sig
ROA	8.023	16.818	0.99	0.320	0.132	4.169	*
Leverage	1.881	2.033	0.58	0.559	0.226	15.640	
Firm Age	0.412	0.233	-1.57	0.116	0.136	1.245	
Board Size	1.379	0.234	1.89	0.058	0.989	1.924	*
Board Independence	0.282	0.632	-0.56	0.572	0.003	22.781	
Board Meetings	1.032	0.1	0.32	0.748	0.853	1.249	
Constant	1.988	3.026	1.84	0.066	0.668	3.662	*

Pseudo r-squared	0.098	Number of obs	102
Chi-square	12.150	Prob > chi2	0.096

**** p<.01, ** p<.05, * p<.1*

Note: The data has been treated as 99.5% to control the effect of outliers.

As shown in Table 8, firm size demonstrated a significant value of 0.026. There is a negative coefficient sign, which indicates that increasing the size of the firm can decrease the probability of

appointing an external auditor with forensic accounting services. In addition, there is a non-significant positive value of leverage of 0.559, which could indicate that the probability of higher leverage can increase the probability of appointing an external auditor with forensic accounting services.

Also, a non-significant value of firm profitability (ROA) is 0.320. There is a positive coefficient sign, which indicates the probability of higher firm profitability can increase the probability of appointing an external auditor with forensic accounting services. Therefore, in Table 8, a non-significant value of firm age is 0.116. There is a negative coefficient sign, which indicates that the probability of increasing the firm age can decrease the probability of appointing an external auditor with forensic accounting services.

As is apparent from Table 8, a significant value of board size is 0. 058. There is a positive coefficient sign, which indicates the probability that a higher board size can increase the probability of appointing an external auditor with forensic accounting services—moreover, a non-significant value of 0.572 for board independence. There is a negative coefficient sign, which indicates that the probability of increasing the board independence can decrease the probability of appointing an external auditor with forensic accounting services—lastly, a non-significant value of 0.748 for board meetings. There is a positive coefficient sign, which indicates that the probability of higher board meetings can increase the probability of appointing an external auditor with forensic accounting services.

Table 9 The Logistic Regression Analysis for the Sub-Sample (Jordan).

EAFSA	Odds Ratio.	St.Err.	t-value	p-value	[95% Conf	Interval	Sig
Firm Size	2.022	0.048	0.45	0.660	0.124	0.081	
ROA	1.021	0.018	1.20	0.248	0.016	0.059	
Leverage	4.415	0.003	1.76	0.098	0.001	0.012	*
Firm Age	3.416	0.101	-1.45	0.167	0.361	0.068	
Board Size	0.170	0.033	0.98	0.343	0.038	0.101	
Board Independence	1.454	0.594	1.25	0.229	0.521	2.009	
Board Meetings	1.032	0.026	1.22	0.241	0.024	0.087	
Constant	1.022	1.037	0.70	0.497	0.488	2.931	

Pseudo r-squared	0.461	Number of obs	23
Chi-square	1.833	Prob > chi2	0.054

**** p<.01, ** p<.05, * p<.1*

Note: The data has been treated as 99.5% to control the effect of outliers.

As shown in Table 9, there is a non-significant value of 0.660 for firm size. There is a negative coefficient sign, which indicates the probability of increasing the firm's size can decrease the probability of appointing an external auditor with forensic accounting services. Also, a non-significant value of firm profitability (ROA) is 0.248. There is a positive coefficient sign, which

indicates the probability of higher firm profitability can increase the probability of appointing an external auditor with forensic accounting services.

As seen in Table 9, the significant value of leverage is 0.098. There is a positive coefficient sign, which indicates the probability that higher leverage can increase the probability of appointing an external auditor with forensic accounting services. Therefore, in Table 9, a non-significant value of firm age is 0.167. There is a negative coefficient sign, which indicates that the probability of increasing the firm age can decrease the probability of appointing an external auditor with forensic accounting services. A non-significant value of board size is 0. 343. There is a positive coefficient sign, which indicates the probability that a higher board size can increase the probability of appointing an external auditor with forensic accounting services.

Moreover, there is a non-significant value of 0.229 for board independence. There is a positive coefficient sign, which indicates that the probability of higher board independence can increase the probability of appointing an external auditor with forensic accounting services—lastly, a non-significant value of 0.241 for board meetings. There is a positive coefficient sign, which indicates that the probability of higher board meetings can increase the probability of appointing an external auditor with forensic accounting services.

Discussion

The logistic regression analysis provides critical insights into the factors that influence the appointment of external auditors with forensic accounting services in Saudi Arabia and Jordan. The results suggest that firm size is important in determining the likelihood of appointing forensic auditors. Larger firms are less likely to hire these services, possibly because they have more established internal controls and resources to manage risks internally. On the other hand, while firm profitability does not show a statistically significant impact, the positive association implies that more profitable firms may be inclined to hire forensic auditors, likely to protect their financial standing and maintain transparency. The results of this study are consistent with many previous studies that examined the impact of forensic accounting on different financial indicators (Alkhalaileh et al., 2024; Alzoubi, 2023; Taha et al., 2023).

A notable finding is the relationship between leverage and the likelihood of appointing forensic auditors. Firms with higher financial leverage appear more likely to seek forensic accounting services. This could be due to the heightened financial risk associated with higher levels of debt, prompting firms to take additional steps in monitoring and verifying their financial activities. Similarly, firm age shows a significant effect, with older companies less likely to engage forensic auditors. This may reflect that more established firms have already developed robust internal processes to manage financial risks and prevent fraud, reducing the need for external forensic auditing.

Corporate governance factors also emerge as important determinants. The size of a company's board positively influences the likelihood of appointing forensic auditors, suggesting that firms with larger boards are more inclined to endorse such services. This may be because larger boards are typically more attuned to governance issues and may seek forensic auditing to enhance oversight and accountability. However, the influence of board independence and board meetings

is less clear. Although board independence shows a negative trend, it is not statistically significant, and frequent board meetings, while positively correlated with forensic auditor appointments, do not show a strong effect either.

When focusing on Saudi Arabia, the findings largely mirror the overall trends. Larger firms are less likely to hire forensic auditors, while board size continues to show a positive impact. Although not statistically significant in this sub-sample, financial leverage still points to a trend where firms with higher leverage are more likely to appoint forensic auditors. In Jordan, the results diverge slightly. Firm size is not a significant factor, but leverage is a more prominent determinant, with firms carrying more debt more likely to engage forensic auditors. The size of the board also shows a positive but non-significant trend, aligning with broader patterns of governance influencing the decision to appoint forensic auditors.

Conclusion

The results for the whole sample suggest that firm size, leverage firm age, and board size are essential determinants of appointing external auditors with forensic accounting services in Saudi Arabia and Jordan. This is consistent with the research hypothesis of this study, which states that these variables impact the appointment of an external auditor with forensic accounting services. Using sub-samples suggests that leverage is an essential determinant of appointing external auditors with forensic accounting services in Jordan but not in Saudi Arabia. Also, firm size, firm age, and board size are essential determinants of appointing external auditors with forensic accounting services in Saudi Arabia but not Jordan.

Practically, emphasising the importance of considering firm and board characteristics when selecting an external auditor offering forensic accounting services enhances firms' ability to factor in firm size, ROA, leverage, firm age, board size, board independence, and board meetings in their decision-making process. Understanding the impact of these characteristics enables firms to make more informed decisions regarding appointing an external auditor with forensic accounting services.

In the context of the Saudi Stock Exchange and Amman Stock Exchange, the study sheds light on the factors influencing the selection of an external auditor with forensic accounting services. The findings inform regulators, policymakers, and market participants about the importance of firm and board characteristics in ensuring effective forensic accounting practices. By considering these factors, regulators and policymakers can develop appropriate guidelines and regulations to promote transparency, accountability, and the detection of fraudulent activities in financial markets. Firms and regulators can use these insights to make more informed decisions regarding appointing external auditors with forensic accounting services, thereby enhancing the overall integrity and trustworthiness of the markets.

The results of this study would not be generalised. Therefore, a larger sample would provide a more comprehensive understanding. Additionally, the study relies on secondary data collection from annual financial reports, which may have limitations such as data accuracy, completeness, and potential biases in reporting. Future research might consider incorporating primary data collection methods, such as surveys or interviews, to gather more detailed and nuanced information directly from the relevant stakeholders.

As with any research, this study is associated with a limitation. The study is geographically confined to two countries: Saudi Arabia and Jordan. While these nations offer valuable insights, they represent specific economic, regulatory, and corporate governance environments that may not apply to other regions. The findings may differ in countries with different legal frameworks, financial reporting standards, and governance practices.

In conclusion, the study provides a conceptual understanding of the influence of firm and board characteristics on appointing an external auditor with forensic accounting services. The research objectives and hypotheses explore the impact of various factors on this decision, utilising data from listed companies' annual reports. Further studies in this domain could focus on examining the effectiveness and robustness of methods of forensic accounting services in detecting and preventing fraudulent activities. Additionally, research could explore the role of corporate governance mechanisms in enhancing the appointment of external auditors with forensic accounting services and investigate the impact of regulatory frameworks on the decision-making process regarding forensic accounting services.

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