

Characteristics of Accounting Information Systems and their Impact on the Development of Corporate Financial Performance: Evidence from Jordan

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Abstract

The objective of this study was to uncover the characteristics of accounting information systems and their impact on the development of corporate financial performance evidence from Jordan. In order to achieve the objective of this study, the researcher applied the study tools: Measurement of the characteristics of accounting information systems and the measure of development of corporate financial performance. To confirm their psychometric properties, on a random sample of (271). The results of the study showed that the characteristics of accounting information systems as well as the development of corporate financial performance came at (average) level. The results of the study showed a positive effect on the characteristics of the accounting information systems (TA, TB, TC, TD) on the development of financial performance in the Jordanian industrial companies by (55%). The effect is in the order (TD, TB, TC and finally TA)

Keywords: Financial Performance, (AISs), Jordanian industrial Shareholding Companies.

Introduction

The main purpose of financial reports is the provision of information that reflects the position of the firms, and which are also worthwhile to the various parties which rely on these reports for their decisions. In consequence, such data ought to provide reliable information about the financial position of the firm, the results of operations, and financial flows at these firms, in a manner which enables the users of financial data of making rigorous decisions.

The historical cost represents the real situation of the event at the time of transaction, thus, it's not an uncertain source in terms of accuracy at the moment of acquisition or possession. However, doubts arise in the period after, when the recorded value becomes something of the past, that it may be not representative of the current value. Thus, criticism to assessment using historical cost was presented based on the dynamism of economic conditions with their consistent change.

Upon the increasing criticism of the users of financial data based on the principle of historical cost, which were incapable of providing them with a sound basis for their financial decisions, an attitude towards the preparation of financial reports, which provide more accurate and reliable data, emerged.

Therefore, this study sought to explore the characteristics of Accounting Information Systems (AISs) and their impact on the development of financial performance at Jordanian industrial shareholding companies.

Problem of the study

This study examines the characteristics of accounting information systems and their impacts on the development of financial performance. The main purpose of financial accounting is related to the provision of useful financial data, which are required for the users of financial reports, and are essential tool for the communicating of information to internal and external users, based on the characteristics of AISs which aid in improving the quality of data provided in financial reports, that is reflected on the decisions of the users of accounting information.

Accordingly, this study seeks to shed light on the characteristics of (AISs) and their impacts on the development of financial performance, as an alternative measure of value in accounting.

The problem of the present study is related to answering the following question:

- Is there an impact for the characteristics of accounting information systems (AISs) on the development of financial performance at Jordanian Industrial shareholding companies?

The answer to this question will be provided through the answers to the following minor questions:

- 1- Is there an impact for the characteristic of relevance of accounting information systems (AISs) on the development of financial performance at Jordanian Industrial shareholding companies?
- 2- Is there an impact for the characteristic of accuracy accounting information systems (AISs) on the development of financial performance at Jordanian Industrial shareholding companies?
- 3- Is there an impact for the characteristic of verifiability of accounting information systems (AISs) on the development of financial performance at Jordanian Industrial shareholding companies?

- 4- Is there an impact for the characteristic of timeliness of accounting information systems (AISs) on the development of financial performance at Jordanian Industrial shareholding companies?

Aims of the study

This study aims to explore the characteristics of accounting information systems (AISs) and their impact on the development of financial performance at Jordanian Industrial shareholding companies.

From this aim, the following minor aims are derived:

- 1- Exploring the characteristic of relevance of accounting information and its impact on the development of corporate financial performance at Jordanian industrial shareholding companies.
- 2- Exploring the characteristic of accuracy of accounting information and its impact on the development of corporate financial performance at Jordanian industrial shareholding companies.
- 3- Exploring the characteristic of verifiability of accounting information and its impact on the development of corporate financial performance at Jordanian industrial shareholding companies.
- 4- Exploring the characteristic of timeliness of accounting information and its impact on the development of corporate financial performance at Jordanian industrial shareholding companies.

Importance of the study:

The importance of the current study is related to the impact of the characteristics of accounting information systems on the provision of financial reports which are consistent with the standard accounting principles and assumptions, because decisions of all forms and types depend on the disclosed financial and accounting data disclosed in financial reports, which consequently impact decision making.

Hypotheses of the Study

In order to solve the problem of the study, the researcher sought to answer its questions, based on the following hypothesis:

There is no an impact for the characteristics of accounting information systems (AISs) on the development of corporate financial performance evidence from Jordan

From this hypothesis, the following minor hypotheses are derived:

First hypothesis:

There is no impact for the characteristic of relevance of accounting information systems (AISs) on the development of corporate financial performance evidence from Jordan

Second Hypothesis:

There is an impact for the characteristic of Accuracy of accounting information systems (AISs) on the development of corporate financial performance evidence from Jordan

Third Hypothesis:

There is no impact for the characteristic of verifiability of accounting information systems (AISs) on the development of financial performance evidence from Jordan

Fourth Hypothesis:

There is no impact for the characteristic of timeliness of accounting information systems (AISs) on the development of corporate financial performance evidence from Jordan

Review of Literature

Aga study (2013) entitled "The importance of accounting measurement based on fair value in maximizing the qualitative characteristics of accounting information"

The objective of this study is to know the importance of fair value measurement in maximizing the qualitative characteristics of accounting information in local banks operating in Palestine. A number of results have been reached. The most important of which is that accounting measurement based on fair value positively affects the specific characteristics of accounting information in the case of efficient and active financial markets. Accounting measurement based on fair value is also an indicator of financial analysis because it provides information on developments banking performance reflects the reality of the prevailing situation. **Sulaiman's Study (2010)** entitled "Effect of Fair Value Application on Financial Performance Indicators in the Financial Statements of Jordanian Banks" The objective of this study was to identify the impact of applying fair value accounting on financial performance indicators in the financial statements of Jordanian banks To achieve the objectives of the study, the researcher extracted the financial ratios from (2001) to the year (2008). This study has reached a number of results, the most important of which is that Jordanian banks determine a certain return per ordinary share, which helps them maintain their market position. Jordanian banks maintain a good liquidity ratio that enables them to meet their short-term obligations. Bigger for its customers

Saleh's study (2009) entitled "The impact of accounting standards on fair value on the specific characteristics of accounting information in light of the global financial crisis" The objective of this study was to measure the impact of the application of international and local accounting standards on fair value on the quality of the accounting information contained in the financial reports of financial services companies and banks listed on the Egyptian Stock Exchange. In order to achieve the objective of the study, the researcher collected the data through a questionnaire distributed by a random sample of financial managers, internal auditors and external auditors of companies, where 75 questionnaires were distributed and 48 responses were used in the statistical analysis. A number of results, the most important of which are that financial reporting standards oriented to fair value are of distinct importance from traditional accounting standards from the viewpoint of financial managers, internal and external auditors in financial services companies and banks listed on the Egyptian Stock Exchange, **Al-Jabali & Tawfeq (2014)** explored the ability of information technology to provide the information which is characterized by reliability, accuracy and stability, which are capable of providing the auditor with information that he can use to stipulate his report. Results of the study showed that obtaining information characterized by reliability, accuracy and integrity are far from what makes it non-expressive or unreal hope to god that this research is useful for each of the required knowledge and science. **Al-Gabli and Al-Tawfiq (2014)** they demonstrate the ability of IT to provide reliable, accurate and stable information that is capable of providing the auditor with the information that he can use for his report. The results of the study showed that access to information that is reliable, accurate and impartial is far from being unrealistic or unrealistic. Hopefully, this research is useful for both knowledge and science. **Izmari (2016)** conducted a study based on empirical evidence, to measure the relationship between the use of accounting information systems by SMEs in Kayseri-Turkey, and improved performance indicators for companies. Kayseri is one of the most successful furniture manufacturing centers in Turkey and has earned more than \$ 1 billion in export revenues in 2007. The data were obtained from interviews with 60 companies in the organized industrial zone analyzed through the lower generalized squares. The study found a positive relationship and a statistically significant relationship between the use of flight information system and the educational status of managers. Moreover with the higher number of employees, the use of Ace also increased. Moreover the relationship found appositive between the use of IS and growth (sales, customer revenue)

Results

Linear Regression Analysis

Introduction. A linear regression analysis was conducted to assess whether TA, TB, TC, and TD significantly predicted TE. The 'Enter' variable selection method was chosen for the linear regression model, which includes all of the selected predictors.

Assumptions. Prior to conducting the linear regression, the assumption of normality, homoscedasticity, and variance inflation factors were tested.

Normality. The assumption of normality was assessed by plotting the quintiles of the model residuals against the quintiles of a Chi-square distribution, also called a Q-Q scatter plot (De Carlo, 1997). For the assumption of normality to be met, the data points must follow a relatively straight line. Data points that are far from the diagonal suggest that normality should not be assumed. Figure 1 presents a Q-Q scatter plot of the model residuals.

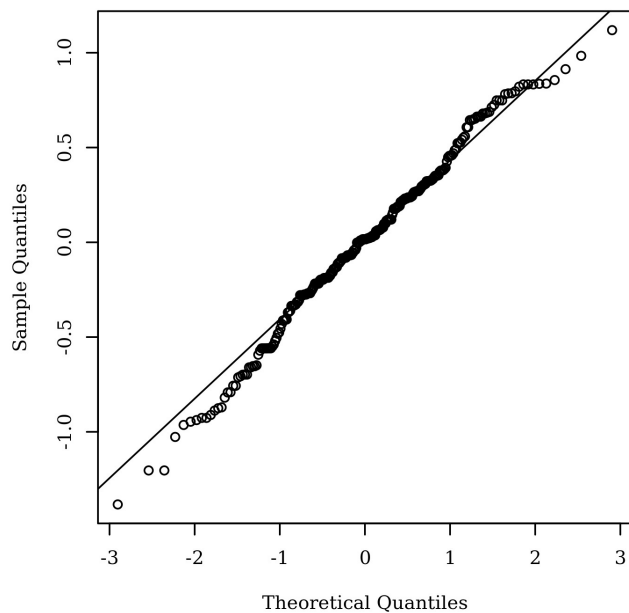


Figure 1. Q-Q scatter plot for normality for TA, TB, TC, and TD predicting TE

Homoscedasticity. The assumption of homoscedasticity was assessed by plotting the model residuals against the predicted model values (Osborne & Walters, 2002). The assumption is met if the points appear randomly distributed with a mean of zero and no apparent curvature. Figure 2 presents a scatter plot of predicted values and model residuals.

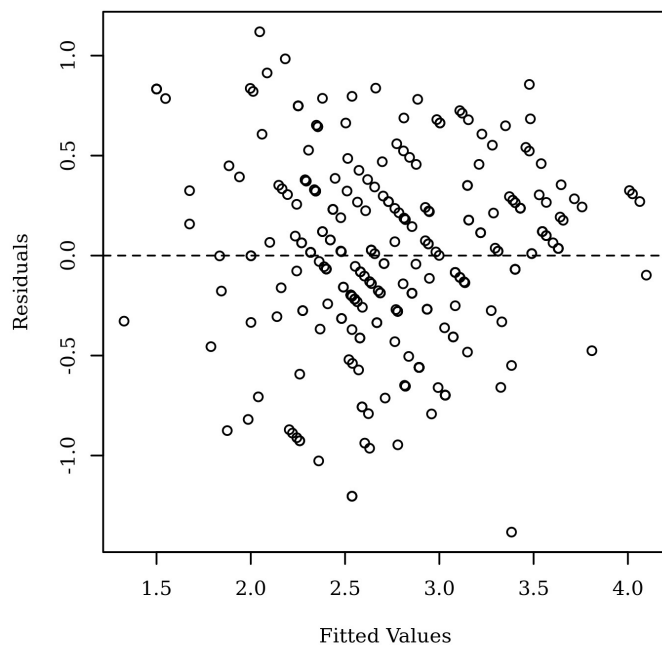


Figure 2 . Residuals scatter plot for homoscedasticity for TA, TB, TC, and TD predicting TE

Variance inflation factors. Variance Inflation Factors (VIFs) were calculated to detect the presence of multicollinearity between predictors. High VIFs indicate increased effects of multicollinearity in the model. Variance Inflation Factors greater than 5 are cause for concern, whereas VIFs of 10 should be considered the maximum upper limit (Menard, 2009). All predictors in the regression model have VIFs less than 10. Table 1 presents the VIF for each predictor in the model.

Table 1

Variance Inflation Factors for TA, TB, TC, and TD

Variable	VIF
TA	1.63
TB	2.62
TC	2.33
TD	1.52

Results. The results of the linear regression model were significant, $F(4,266) = 81.58, p < .001, R^2 = 0.55$, indicating that approximately 55% of the variance in TE is explainable by TA, TB, TC, and TD. TA significantly predicted TE, $B = 0.08, t(266) = 2.11, p = .036$. This indicates that on average, every one unit increase of TA will result in a 0.08 unit change in TE. TB significantly predicted TE, $B = 0.28, t(266) = 5.10, p < .001$. This indicates that on average, every one unit increase of TB will result in a 0.28 unit change in TE. TC significantly predicted TE, $B = 0.11, t(266) = 2.26, p = .025$. This indicates that on average, every one unit increase of TC will result in a 0.11 unit change in TE. TD significantly predicted TE, $B = 0.29, t(266) = 6.09, p < .001$. This indicates that on average, every one unit increase of TD will result in a 0.29 unit change in TE. Table 2 summarizes the results of the regression model.

Table 2

Results for Linear Regression with TA, TB, TC, and TD predicting TE

Variable	B	SE	β	t	p
(Intercept)	0.56	0.13	0.00	4.27	< .001
TA	0.08	0.04	0.11	2.11	.036
TB	0.28	0.05	0.34	5.10	< .001
TC	0.11	0.05	0.14	2.26	.025
TD	0.29	0.05	0.31	6.09	< .001

Note. $F(4,266) = 81.58, p < .001, R^2 = 0.55$

Descriptive Statistics

Introduction. Summary statistics were calculated for q1, q2, q3, q4, q5, q6, q7, q8, q9, q10, q11, q12, q13, q14, q15, q16, q17, q18, q19, q20, q21, q22, q23, q24, TA, TB, TC, TD, and TE.

Summary Statistics. The observations for q1 ranged from 1.00 to 5.00, with an average of 3.19 ($SD = 1.10$). The observations for q2 ranged from 1.00 to 5.00, with an average of 3.14 ($SD = 1.06$). The observations for TA ranged from 1.00 to 4.80, with an average of 2.99 ($SD = 0.90$). The observations for TB ranged from 1.00 to 5.00, with an average of 2.75 ($SD = 0.84$). The observations for TC ranged from 1.00 to 5.00, with an average of 2.93 ($SD = 0.88$). The observations for TD ranged from 1.00 to 4.75, with an average of 2.86 ($SD = 0.72$). The observations for TE ranged from 1.00 to 4.33, with an average of 2.74 ($SD = 0.68$). Skewness and kurtosis were also calculated in Table 3. When the skewness is greater than or equal to 2 or less than or equal to -2, then the variable is considered to be asymmetrical about its mean. When the kurtosis is greater than or equal to 3, then the variable's distribution is markedly different than a normal distribution in its tendency to produce outliers (Westfall & Henning, 2013).

Table 3

Summary Statistics Table for Interval and Ratio Variables

Variable	<i>M</i>	<i>SD</i>	<i>n</i>	Min.	Max.	Skewness	Kurtosis
q1	3.19	1.10	271	1.00	5.00	-0.23	-0.52
q2	3.14	1.06	271	1.00	5.00	-0.02	-0.46
q3	2.90	1.00	271	1.00	5.00	-0.03	-0.56
q4	2.96	0.99	271	1.00	5.00	0.01	-0.45
q5	2.75	0.90	271	1.00	5.00	-0.17	-0.66
q6	2.77	1.03	271	1.00	5.00	0.18	-0.61
q7	2.66	0.91	271	1.00	5.00	0.22	-0.28
q8	2.61	1.01	271	1.00	5.00	0.24	-0.45
q9	2.76	0.97	271	1.00	5.00	0.28	-0.20
q10	2.94	1.07	271	1.00	5.00	-0.05	-0.80
q11	2.97	0.98	271	1.00	5.00	-0.50	-0.51
q12	3.04	1.04	271	1.00	5.00	-0.37	-0.56
q13	3.04	0.99	271	1.00	5.00	-0.14	-0.51
q14	2.67	0.99	271	1.00	5.00	-0.00	-0.68
q15	2.80	0.91	271	1.00	5.00	0.08	-0.23
q16	2.95	0.91	271	1.00	5.00	-0.17	-0.10
q17	2.94	0.82	271	1.00	5.00	-0.41	-0.20
q18	2.76	0.85	271	1.00	5.00	-0.02	-0.16
q19	2.83	0.86	271	1.00	5.00	0.05	-0.45
q20	2.58	0.89	271	1.00	5.00	0.17	-0.42
q21	2.75	0.88	271	1.00	5.00	-0.09	0.03
q22	2.76	0.92	271	1.00	5.00	0.01	-0.20
q23	2.82	0.94	271	1.00	5.00	0.03	-0.39
q24	2.70	0.90	271	1.00	5.00	-0.07	-0.60
TA	2.99	0.90	271	1.00	4.80	0.06	-0.48
TB	2.75	0.84	271	1.00	5.00	0.20	-0.38
TC	2.93	0.88	271	1.00	5.00	-0.24	-0.52
TD	2.86	0.72	271	1.00	4.75	-0.23	0.13
TE	2.74	0.68	271	1.00	4.33	0.07	-0.22

Descriptive Statistics

Introduction. Summary statistics were calculated for q1, q2, q3, q4, q5, q6, q7, q8, q9, q10, q11, q12, q13, q14, q15, q16, q17, q18, q19, q20, q21, q22, q23, q24, TA, TB, TC, TD, and TE.

Skewness and kurtosis were also calculated in Table 4. When the **Skewness** is greater than or equal to 2 or less than or equal to -2, then the variable is considered to be asymmetrical about its mean. When the kurtosis is greater than or equal to 3, then the variable's distribution is markedly different than a normal distribution in its tendency to produce outliers (Westfall & Henning, 2013).

Table 4

Summary Statistics Table for Interval and Ratio Variables

Variable	<i>M</i>	<i>SD</i>	<i>n</i>	Min.	Max.	Skewness	Kurtosis
q1	3.19	1.10	271	1.00	5.00	-0.23	-0.52
q2	3.14	1.06	271	1.00	5.00	-0.02	-0.46
q3	2.90	1.00	271	1.00	5.00	-0.03	-0.56
q4	2.96	0.99	271	1.00	5.00	0.01	-0.45
q5	2.75	0.90	271	1.00	5.00	-0.17	-0.66
q6	2.77	1.03	271	1.00	5.00	0.18	-0.61
q7	2.66	0.91	271	1.00	5.00	0.22	-0.28
q8	2.61	1.01	271	1.00	5.00	0.24	-0.45
q9	2.76	0.97	271	1.00	5.00	0.28	-0.20
q10	2.94	1.07	271	1.00	5.00	-0.05	-0.80
q11	2.97	0.98	271	1.00	5.00	-0.50	-0.51
q12	3.04	1.04	271	1.00	5.00	-0.37	-0.56
q13	3.04	0.99	271	1.00	5.00	-0.14	-0.51
q14	2.67	0.99	271	1.00	5.00	-0.00	-0.68
q15	2.80	0.91	271	1.00	5.00	0.08	-0.23
q16	2.95	0.91	271	1.00	5.00	-0.17	-0.10
q17	2.94	0.82	271	1.00	5.00	-0.41	-0.20
q18	2.76	0.85	271	1.00	5.00	-0.02	-0.16
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q23	2.82	0.94	271	1.00	5.00	0.03	-0.39
q24	2.70	0.90	271	1.00	5.00	-0.07	-0.60
TA	2.99	0.90	271	1.00	4.80	0.06	-0.48
TB	2.75	0.84	271	1.00	5.00	0.20	-0.38
TC	2.93	0.88	271	1.00	5.00	-0.24	-0.52
TD	2.86	0.72	271	1.00	4.75	-0.23	0.13
TE	2.74	0.68	271	1.00	4.33	0.07	-0.22

Pearson Correlation Analysis

Introduction. A Pearson correlation analysis was conducted among TA, TB, TC, TD, and TE. Cohen's standard was used to evaluate the strength of the relationships, where coefficients between .10 and .29 represent a small effect size, coefficients between .30 and .49 represent a moderate effect size, and coefficients above .50 indicate a large effect size (Cohen, 1988).

Assumptions. A Pearson correlation requires that the relationship between each pair of variables is linear (Conover & Iman, 1981). This assumption is violated if there is curvature among the points on the scatter plot between any pair of variables. Figure 3 presents the scatter plot matrix of the correlations.

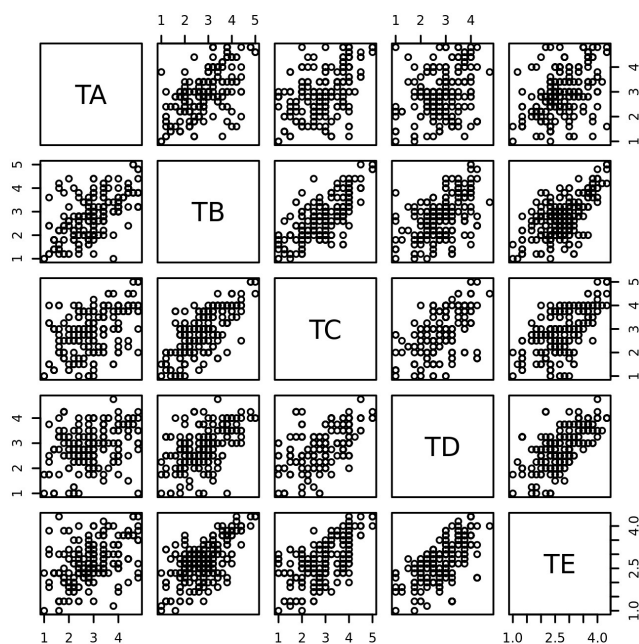


Figure 3. Scatter plot matrix among TA, TB, TC, TD, and TE.

Results. There was a significant positive correlation between TA and TB ($r_p = 0.61, p < .001$). The correlation coefficient between TA and TB was 0.61 indicating a large effect size. This indicates that as TA increases, TB tends to increase. There was a significant positive correlation between TA and TC ($r_p = 0.50, p < .001$). The correlation coefficient between TA and TC was 0.50 indicating a moderate effect size. This indicates that as TA increases, TC tends to increase. There was a significant positive correlation between TA and TD ($r_p = 0.31, p < .001$). The correlation coefficient between TA and TD was 0.31 indicating a moderate effect size. This indicates that as TA increases, TD tends to increase. There was a significant positive correlation between TA and TE ($r_p = 0.48, p < .001$). The correlation coefficient between TA and TE was 0.48 indicating a moderate effect size. This indicates that as TA increases, TE tends to increase. There was a significant positive correlation between TB and TC ($r_p = 0.72, p < .001$). The correlation coefficient between TB and TC was 0.72 indicating a large effect size. This indicates that as TB increases, TC tends to increase. There was a significant positive correlation between TB and TD ($r_p = 0.51, p < .001$). The correlation coefficient between TB and TD was 0.51 indicating a large effect size. This indicates that as TB increases, TD tends to increase. There was a significant positive correlation between TB and TE ($r_p = 0.67, p < .001$). The correlation coefficient between TB and TE was 0.67 indicating a large effect size. This indicates that as TB increases, TE tends to increase. There was a significant positive correlation between TC and TD ($r_p = 0.56, p < .001$). The correlation coefficient between TC and TD was 0.56 indicating a large effect size. This indicates that as TC increases, TD tends to increase. There was a significant positive correlation between TC and TE ($r_p = 0.61, p < .001$). The correlation coefficient between TC and TE was 0.61 indicating a large effect size. This indicates that as TC increases, TE tends to increase. There was a significant positive correlation between TD and TE ($r_p = 0.60, p < .001$). The correlation coefficient between TD and TE was 0.60 indicating a large effect size. This indicates that as TD increases, TE tends to increase. Table 5 presents the results of the correlations.

Table 5

Pearson Correlation Matrix among TA, TB, TC, TD, and TE

Variable	1	2	3	4	5
1. TA	-				
2. TB	0.61	-			
3. TC	0.50	0.72	-		
4. TD	0.31	0.51	0.56	-	
5. TE	0.48	0.67	0.61	0.60	-

Note. The critical values are 0.12, 0.16, and 0.20 for significance levels .05, .01, and .001 respectively.

CONCLUSION

This study examines the impact of the characteristics of accounting information systems and their impact on the development of corporate financial performance evidence from Jordan, the researcher applied the study tools: Measurement of the characteristics of accounting information systems and the measure of development of corporate financial performance. To confirm their psychometric properties, on a random sample of (271). The results of the study showed that the characteristics of accounting information systems as well as the development of corporate financial performance came at (average) level. The results of the study showed a positive effect on the characteristics of the accounting information systems (TA, TB, TC, TD) on the development of financial performance in the Jordanian industrial companies by (55%). The effect is in the order (TD, TB, TC and finally TA).

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