

Investigating the Effect of Firm Size and Financial Leverage on the Relationship between Cost Management and Relevance of Accounting Information

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ABSTRACT— The present study tries to examine the influence of firm size and financial leverage on the relationship between cost management and the relevance of accounting information in a ten-year period (2004-2013). The study population consisted of all companies listed on Tehran Stock Exchange among which 101 companies were selected as the study sample through systematic sampling. Using Stata, regression analysis was conducted to test the study hypothesis. To investigate the relevance of accounting information, Ohlson's pattern was used in which the relevance of earnings per share and the book value per share were assessed using market value per share. The results showed that cost management significantly and positively affects share value; however, firm size is not a suitable factor in pricing stock. In addition, considering cost management with regard to firm size influences the relevance of book value so that book value in firms with cost management negatively influences share value and in firms with cost management positively affects share value. Results also revealed that using financial leverage doesn't have a significant impact on the valuation; in addition, the relevance of earnings and book value with regard to cost management and financial leverage indicate that the effect direction of book value on the earnings in firms with different cost management is different.

KEYWORDS: cost management, relevance, earnings per share, firm size, financial leverage

Introduction

Nowadays, rapid technological changes, global difficulties and internal competition motivate companies to focus on managing costs to achieve profitability and sustainable competitiveness. Today's slogan of management is solving problems corresponding to the cost before it beats and overcomes the company. In recent years, significant changes have occurred in the accounting and management costs; these changes caused because of the increased competitive atmosphere which is due to the introduction of new products, information technology with the focus on customers and growth of global markets. Growing need of enterprises and organizations to have timely and accurate information in order to use in managers' decision-making process is inevitable issue. In this regard, management information system is regarded as the main source of presenting information. Accounting information system, as an important subset of management information system, gives diverse financial information to the users of such information, specifically to the organization directors. In general, accounting information should have certain features to be used in the decision-making process. The qualitative features of such information, such as relevance and reliability, affect its timely application (Ardabili,2012).

Methodology

As the data used in this investigation is real, the study can be regarded as semi-experimental in the field of accounting evidential study. Therefore, the practical results obtained from the study can be used for the users of financial reports. In addition, this research is a descriptive, analytical one, on the basis of which the data is collected to describe and analyze the relationships between variables. On the other hand, this investigation is considered as a correlational one, which is regarded as one of the subgroups of descriptive studies. The study also employs ex post facto design through using past data. Thus, the present study can be mainly classified as practical application. The data were examined using Stata software. To test and evaluate the extent of the relationship between the explanatory variables of the model, cross-sectional surface regression with combined data was used. The theoretical bases and the study background rested on library research and the data related to the study variables were collected using Tehran Stock Exchange database and Internet databases, publications, articles and related theses. The scope of the study included Tehran Stock Exchange and the sample was selected using systematic sampling. The sample consisted of the companies meeting all the following requirements:

Companies that were accepted before the studied year;

Companies whose fiscal year ended on March, 19 of each year.

Companies that didn't stop business or didn't change their fiscal year during the studied period.
 Companies that maintained their membership in the Stock Exchange during the last five financial periods.
 Companies that had available information to extract the desired data.

Companies that were not considered as investment firms or financial intermediations.

Based on the above-mentioned conditions, 101 companies being among active companies in Tehran Stock Exchange were selected as the study sample. To determine the estimation method for each of the study models, F-Limmer test, Hausman test and Breusch-Pagan test was used to choose between an integrated approach or panel data, to determine the fixed or random effects and to determine heteroscedasticity of variance, respectively. The regression results obtained using t and F statistics were analyzed using normal least squares; χ^2 and z statistics and their probability were also analyzed using generalized least squares method. The aim of this study is to evaluate the relevance of accounting information considering cost management. In this regard, Ohlson's basic model (1995) was used. To investigate the study hypothesis, Ohlson's model was first examined and then based on that model, the study hypothesis was tested.

Research model and its variables

Similar to most researches conducted in the field of the accounting information value, this study also used Ohlson's (1995) model [15].

Dependent variable

Stock price (P) is considered as the dependent variable; stock price at the end of July of the next fiscal year was used with the aim of ensuring the reflection of the impact of financial information of the end of the period on the prices.

Independent variables

Book value (BV) represents the value of the company based on the principle of historical cost principle and is calculated using the following formula:

$BV_{it} = \text{the equity at the end of the year} / \text{the number of issued shares}$

Earnings per share (EPS), in this study, is extracted from the financial statements of the desired companies.

Animal variable: this variable to calculate the cost of sales ratio calculated for different years

Dummy variable: to calculate this variable, the prime cost to sales ratio is firstly calculated for different years; then, the ratio obtained for each year is compared with the ratio obtained for the following year. In case this ratio increases, the dummy variable is taken as 0; otherwise, it is regarded as 1. Generally, this factor is considered as a factor of cost management the increase or decrease of which indicates the presence or absence of cost management.

Control variables

Firm size: in many studies, sales revenue is regarded as an index for firm size [16]. Similarly, this study uses sales revenue as an index for firm size.

Financial leverage: in calculating financial leverage, the financial sector of income statement is taken into account. The degree of financial leverage reflects the percentage of changes in net profit relative to the percentage of change in operating profit (i.e. how will the net profit change with one percent change in operating profit) (Azad, 2009).

Theoretical bases and review of the literature

Today the life of many companies is dependent upon their ability in enhancing the accuracy of cost management system; this will focus on the reduction of the costs throughout all the production process and value chain. Cost management is based on providing perfect goods and services to customers (Alem Tabriz & Yunesian, 2010). In this condition, accounting information and cost management systems play crucial roles in determining the most appropriate strategy for leading the organization (Ansari et al., 1997). That is because today's world is a world of information and the one will win who has more related information at its disposal. Disregarding this can be a source of major risks in decision making. The weakness of information system in most cases causes poor decisions and consequently poor management. In most organizations, the majority of decisions made by the managers are somehow related to financial information; therefore, financial information plays a key role in most cases. The weakness of organization's information system usually lacks information accounting system in its core; inability to have quick and on-time access to financial information in the era of information technology advancements cause irretrievable losses (Arab Mazar Yazdi, 1994). To be useful, information must be relevant to the decision making needs of the users. Information is considered to be relevant when it can affect the economic decisions of the users by assisting them in evaluating past, present or future events via confirmation or correction of their past evaluations (Chahardoli, 2014).

Cost management

Advances in information technology, communication equipment and production systems open new horizons to managers. The main result of these changes is the focus on quality and customer satisfaction. In order for companies to overcome the fierce competitions in the local, international and online markets, they should pay a lot of attention to the implementation of strategic management of their costs. Traditional cost systems, which only focus on measurement and control of products or service fees, are not sufficient to deal with the new economic environment and technological developments. Thus, firms should use strategic cost management as a powerful tool to achieve competitive advantage and maximize profitability in short run and long run. Therefore, many of those in charge of economic affairs gradually distance from traditional accounting-based approaches to prime cost and tend to make cost management system. Cost management system is a planning and control system that is designed on

the basis of comprehensive information and focuses on the process of business activities. In fact, cost management is a set of actions that is done by the management to provide customer satisfaction and continuously control and reduce organization costs; however, the important point in this process is that cost reductions should not reduce customer satisfaction. Cost management is a general philosophy that is not limited to a certain type of activities or certain part of an organization and does not cover only specific or unusual items. In other words, in the context of cost management system, it is not the items with unusually high costs that are aimed at reducing costs, but rather any cost can be reduced and its probability is examined. Today, providing quality products and service with minimal cost is undoubtedly one of the most important objectives of cost management system; other objectives include achieving profitability, growth and financial self-sufficiency, minimizing the cost of products, diversifying the market, improving the quality of products in accordance with international standards and properly doing the tasks related to social services (Tadris Hassani, & Rahimpour, 2011).

Relevance of accounting information

Relevance is defined as follows: In order for the information to be based on the criterion of relevance, it should be useful in accordance with the operations that are supposed to be facilitated or the results that are supposed to be obtained. Such a situation leads the information to affect the desired action. Relevance helps the users to anticipate future events or confirm or modify former expectations. These two roles of information are called feedback power. Achieving this goal requires the information to be timely (i.e. having the information at the time of making decision). Based on this, it can be said that information relevance is a function of "predictability" and "feedback power". The usefulness of the information means being useful in three ways: being effective on the goals, being effective on the understandability and being effective on decisions. Based on what was discussed, only those pieces of information are called effective that can assist the users in achieving these objectives. In other words, the person who receives the information should understand what the presenter of the information meant and facilitate the decision-making process for the users (Handericon & Wounboard, 1991).

Brief review of literature

Although many studies have been conducted on the relevance of accounting information, the integration of cost management, size and financial leverage information relevance and the impact of the former on the latter have been noticed less. What follows is taking these issues into account.

Fir (1997) studied the relationship between accounting variables such as the size of entity, book value per share, earnings per share and market value per share and found a significant relationship between variables such as future earnings of the entity, the size of entity, book value per share and market value per share (Fair, 1997). Collin et al. (1997) examined the relationship between book value and valuable earnings of US companies over a period of 40 years (1954-1993). The results revealed that the integrated relationship between companies' book value and earnings value didn't change significantly during the period under study; however, the relationship between the book value and company's value regularly increased during the same period while the relationship between the profit and company's value steadily declined (Collins & et al, 1997). Investigating the effect of earnings and book value on the stock price, Wu et al. (2002) concluded that earnings and book value are relevant and affect the value of the shares (Wu & cheng, 2002). The results of a study conducted by Pourheydari et al. (2002) entitled "Investigating the relevance of earnings, book value and market value of shares in companies listed on Tehran Stock Exchange", which was carried out between 1996 and 2003, show that firstly a considerable part of changes in the company's value is explained by the profit. Secondly, a great part of explanatory power of the sum of company's earnings and book value is because of the earnings. Thirdly, company's book value doesn't enjoy a better explanatory power compared with earnings per share and the determined coefficient for this variable, especially differential coefficient of determination, indicates the weak explanatory power of this variable in explaining the fluctuations in corporate's value (Pourheydari et al, 2002). Saeedi and Qaderi (2007) examined the relevance of accounting earnings, book value, operating cash flow and investing in price-based models. They concluded that there is a significant relationship between book value of equity, accounting earnings and stock price. The models fitted in this study also indicate that the book value and accounting profit are more relevant and that entering (operating or investment) cash flow does not cause a significant increase in the explanatory power of the models (Saeedi and Qaderi, 2007). In an study entitled "the effect of accounting variables and firm's features on stock price", Ebrahimi (2009) showed a reverse significant relationship between firm size and stock price; this reverse relationship is because of the violation of the effect of firm size. The smaller the firm size, the higher the stock price of the firm will be and vice versa (Ebrahimi, 2009) Halonen et al. (2013) studied the value of relevance of accounting information and its impact on stock price. They used Ohlson's (1995) model to do so. Their findings suggest that the relevance of book value increased over time, while the relevance of earnings per share decreased over time (Halonen et al, 2013). Achimping et al. (2014) examined the relationship between financial leverage, firm size and firms' returns in the period from 2006 to 2010 in Ghana's financial market. They found a significant positive relationship between firm size and efficiency and also a significant negative relationship between financial leverage and firms' returns (Achimping et al 1, 2014).

Research objectives and hypotheses

The main objective of the study was to investigate the effect of firm size and financial leverage on the relationship between cost management and the relevance of accounting information; thus, given the mentioned objective, the following hypotheses are proposed:

- Taking into account the firm size, cost management improves the relevance of accounting information.
- Taking into account financial leverage, cost management improves the relevance of accounting information.

Findings

This study used combined data to analyze the model. Before estimating the regression model, it was necessary to examine the stationary of the variables. Levin Lin Chu test was used to do so. The results of this test are presented in Table 1.

Table 1. Summary of the results obtained by Levin, Lin Chu test to determine the stability of variables

variable	t	p – value
P	-21.6987	0.0000
EPS	-19.7453	0.0000
BV	-22.2004	0.0000
FL	-48.1163	0.0000
SIZE	-25.6700	0.0000

Source: study findings

The results of this test show that all the study variables are stationary.

In Ohlson's (1995) mode, price is a function of earnings per share and book value; it is also used to examine the relevance of earnings and book value. Thus, following model is used to test the relevance of accounting information:

$$(1) P_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 BV_{it}$$

where P_{it} is the share price of company i in July of period $t+1$, EPS_{it} is the earnings per share of company i for period t , BV_{it} is the book value of company i during period t If the coefficient of earnings per share (β_1) and book value (β_2) are significant in the regression model, it indicates the impact of earnings per share and book value on the share price and its relevance. Using combined data, F-Limmer test must be performed first to choose either panel data or integrated data. Based on the results of this test, in the case that the F statistic is higher than 0.05, integrated data must be used; otherwise, panel data must be applied. The results of F-Limmer test for this regression model indicate that the probability of F statistic is 0.000; as this amount is less than 0.05, the null hypothesis indicating the use of panel data is rejected. Therefore, panel data is applied to estimate model (1). In addition, the results of Hausman test indicate that fixed effects method must be used. The summary of the results of F-Limmer and Hausman are shown in Table 2.

Table 2. Summary of the results of F-Limmer and Hausman tests to determine the estimation method for regression model (1)

Test	statistics	p – value	Test
F-Limer	4.75	0.000	Panel data
Hausman	105.30	0.000	Fixed effects

Source: Study findings

After selecting the estimation method, variance heteroskedasticity is discussed. In order to assess the heteroskedasticity of variane, Breusch-Pagan test was used, the results of which are summarized in Table 3.

Table 3. Summary of the results of Breusch–Pagan test to determine the consistency of variance model (1)

Test	Statistics	P-value	Result
Breusch–Pagan	1588.06	0.000	Variance heteroskedasticity

Source: study findings

Results of Breusch–Pagan test showed that the obtained probability is equal to 0.000; therefore, the null hypothesis (H_0) indicating the homoscedasticity of variance is rejected; consequently, the problem of variance heteroskedasticity is dealt with. Due to variance heteroskedasticity , generalized least squares was used instead of ordinary least squares to estimate the mode. The results of the final estimation of model (1) using panel data (fixed effects) through GLS estimator are summarized in Table (4).

Table 4. Summary of the results of regression model estimation (1)

$P_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 BV_{it}$			
variable	estimated coefficient	z statistics	<i>p – value</i>
<i>c</i>	1427.581	4.75	0.000
EPS_{it}	0.305	8.05	0.000
BV_{it}	1.297	10.40	0.000
$P_{it} = 1427.581^{**} + 0.305^{**} EPS_{it} + 1.297^{**} BV_{it}$			
χ^2	197.87		
significance of χ^2	0.000		
coefficient of determination (r^2)	0.196		
Durbin-Watson (D-W)	2.253		

In order to assess the relevance of accounting information, z statistics and its probability value are used. Based on the results presented in Table (4), the obtained coefficient for earnings per share is equal to 0.305, which is significant in 99% confidence level and indicates significant direct impact of earnings per share on the share price. The estimated coefficient for the book value variable is also equal to 1.297, which is also significant at 99% confidence level. In order to evaluate the whole model, χ^2 was used. Due to the obtained probability for χ^2 , it can be concluded that the fitted regression model is significant. The coefficient of determination in the corresponding model was equal to 0.169, indicating that 16.9% of the changes in the price variable can be explained by earnings per share and book value. The Durbin-Watson statistic value is equal to 2.253, which is in normal range and indicates the absence of autocorrelation. Totally, testing the basic model of the study showed the relevance of earnings per share and book value. Therefore, as the basic research model is confirmed, the rest of the paper will discuss about testing the research hypothesis.

The first research hypothesis is formulated as follows:

Cost management improves the relevance of accounting information through the firm size.

To test this hypothesis, the regression model was used:

$$(2) P_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 EPS_{it} D_{it} + \beta_3 BV_{it} + \beta_4 BV_{it} D_{it} + \beta_5 D_{it} + \beta_6 Size_{it}$$

where P_{it} is the share price of company i in July of period $t+1$;

EPS_{it} is the earnings per share of companies without cost management;

$EPS_{it} D_{it}$ is the earnings per share of companies with cost management;

BV_{it} is the book value of companies without cost management;

$BV_{it} D_{it}$ is the book value of companies with cost management;

EPS_{it} is earnings per share of companies with cost management

$Size_{it}$ is the size of company i in period t

D_{it} is used for companies that use cost management and

To test this hypothesis, F-Limmer and Hausman test are used first to select between panel data and integrated and also to choose between fixed and random effects. F-Limmer results for this regression model indicates that the probability of F-Limmer statistics is 0.001 and thus the null hypothesis (H_0) indicating the use of integrated data is rejected. Therefore, panel data was used to estimate model 2. In addition, Hausman test results show the use of fixed effects.

Table 5. Summary of the results of F-Limmer and Hausman tests to determine the estimation method for regression model (2)

Test	statistics	p – value	Test
F-Limer	5.92	0.000	Panel data
Hausman	288.24	0.000	Fixed effects

After selecting the estimation method, Breusch–Pagan test was used to examine the heteroscedasticity of variance, the result of which are summarized in Table 6. This test shows that the probability of the test statistic is 0.000; thus, the null hypothesis (H_0) indicating homoscedasticity of variance is rejected.

Table 6, Summary of the results of Breusch–Pagan test to determine the consistency of variance model (2)

Test	Statistics	P-value	Result
Breusch–Pagan	914.24	0.000	Variance heteroskedasticity

Source: study findings

Due to the heteroskedasticity of variance, generalized least squares method was used to estimate the model. The results of the final estimation of model (2) using panel data (fixed effects) method through the GLS estimator are summarized in Table (7).

Table 7, Summary of the results of regression model estimation (2)

$P_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 EPS_{it} D_{it} + \beta_3 BV_{it} + \beta_4 BV_{it} D_{it} + \beta_5 D_{it} + \beta_6 Size_{it}$			
Variable	Estimated coefficient	z statistics	p – value
<i>c</i>	846.664	2.49	0.013
<i>EPS_{it}</i>	1.410	10.24	0.000
<i>EPS_{it}D_{it}</i>	1.403	4.94	0.000
<i>BV_{it}</i>	0.959	5.93	0.000
<i>BV_{it}D_{it}</i>	-0.852	-3.28	0.001
<i>D_{it}</i>	1202.624	2.33	0.020
<i>Size_{it}</i>	-0.001	-1.16	0.247
$P_{it} = 846^* + 1.41^{**}EPS_{it} + 1.40^{**}EPS_{it}D_{it} + 0.96^{**}BV_{it} - 0.85^{**}BV_{it}D_{it} + 1202^*D_{it}$			
χ^2	494.88		
significance of χ^2	0.000		
coefficient of determination (r^2)	0.364		
Durbin-Watson (D-W)	1.867		

To examine the role of cost management and firm size in the relevance of accounting information, z statistics and its probability value were used. Given the results of Table 7, cost management positively and significantly affects stock value. However, the effects of firm size in predicting stock returns were not significant at a 95% confidence level; thus, according to the results, this is not considered an appropriate factor in pricing stock. Comparing the relevance of profit with regard to the role of cost management and firm size shows that the ratio of the relevance of profits is 1.410 in companies that do not use cost management and that this ratio is 1.403 for the companies that use cost management, which is significant at 99% significant level. This shows the positive and significant role of the profit in explaining the value of shares in the company. In addition, the ratio of the book value in companies that use cost management is equal to 0.959, which is significant at 99% confidence level while the ratio of the relevance of book value in companies that do not use cost management is -0.852, which represents the different role of book value in determining share value in the two groups under study. Due to the probability obtained for χ^2 , which is equal to 0.000, it can be concluded that the fitted regression model is significant. The coefficient of determination of the corresponding model is equal to 0.364, which shows that 36.4% of changes in share value are explained by variables such as profit, book value, cost management index and firm size. The Durbin-Watson statistic value is equal to 1.867, which in ranged within the normal limits and indicates the absence of autocorrelation in the disturbance components. Totally, testing the research hypothesis shows that at the 95% confidence level, with regard to the effects of firm size, cost management affects the relevance of earnings and book value. Consequently, the research hypothesis indicating the relevance of accounting information taking into account the cost management and firm size is confirmed at 95% confidence level.

The third hypothesis is formulated as follows:

Cost management improves the relevance of accounting information by taking into account financial leverage.

To test this hypothesis, the following regression model was used:

$$(3) P_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 EPS_{it} D_{it} + \beta_3 BV_{it} + \beta_4 BV_{it} D_{it} + \beta_5 D_{it} + \beta_6 FL_{it}$$

where P_{it} is the share price of company i in July of period $t+1$;

EPS_{it} is the earnings per share of companies without cost management;

$EPS_{it}D_{it}$ is the earnings per share of companies with cost management;

BV_{it} is the book value of companies without cost management;

$BV_{it}D_{it}$ is the book value of companies with cost management;

EPS_{it} is earnings per share of companies with cost management

FL_{it} is financial leverage of company i in period t

D_{it} is used for companies that use cost management and

To test the above hypothesis, F-Limmer test is firstly used to select between panel and integrated data, and Hausman test was used to select between fixed and random effects. Results of Table (8) show that the probability of F-Limmer statistics is 0.001; consequently, since this amount is less than 0.05, the null hypothesis (H₀) indicating the use of integrated data is rejected. Therefore, panel data was used to estimate Model (3). In addition, Hausman test results indicated using fixed effects.

Table 8, Summary of the results of F-Limmer and Hausman tests to determine the estimation method for regression model (3)

Test	statistics	p – value	Test
F-Limer	5.59	0.000	Panel data
Hausman	309.04	0.000	Fixed effects

After selecting the estimation method, Breusch–Pagan test was used to examine the heteroscedasticity of variance, the result of which are summarized in Table (9). This test shows that the probability of the test statistic is 0.000; thus, the null hypothesis (H₀) indicating homoscedasticity of variance is rejected.

Table 9, Summary of the results of Breusch–Pagan test to determine the consistency of variance model (3)

Test	Statistics	P-value	Result
Breusch–Pagan	969.49	0.000	Variance heteroskedasticity

Source: study findings

Due to variance heteroskedasticity , generalized least squares was used to estimate the mode. The results of the final estimation of Model (3) using panel data (fixed effects) through GLS estimator are summarized in Table (10).

Table 10, Summary of the results of regression model estimation (3)

$P_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 EPS_{it}D_{it} + \beta_3 BV_{it} + \beta_4 BV_{it}D_{it} + \beta_5 D_{it} + \beta_6 FL_{it}$			
Variable	Estimated coefficient	z statistics	p – value
<i>c</i>	904.739	2.68	0.007
<i>EPS_{it}</i>	1.390	10.31	0.000
<i>EPS_{it}D_{it}</i>	1.374	4.91	0.000
<i>BV_{it}</i>	0.932	5.88	0.000
<i>BV_{it}D_{it}</i>	-0.809	-3.16	0.002
<i>D_{it}</i>	1216.19	2.41	0.016
<i>FL_{it}</i>	-29.506	-1.65	0.098
$P_{it} = 904^{**} + 1.39^{**}EPS_{it} + 1.37^{**}EPS_{it}D_{it} + .93^{**}BV_{it} - .81^{**}BV_{it}D_{it} + 1216^{*}D_{it}$			
χ^2	513.31		
significance of χ^2	0.000		
Coefficient of determination (r^2)	0.3724		
Durbin-Watson (D-W)	1.914		

To examine the role of cost management and financial leverage in the relevance of accounting information, z statistics and its probability value were used. Results of Table (10) show that the role of cost management in pricing stock is positive and significant at a 95% confidence level; however, using financial leverage has no significant effect in valuing the shares. Examining the relevance of profit and book value with regard to cost management and financial leverage show that the impact factor the profit on the share return is 1.39 in companies that do not use cost management and that this ratio is 1.374 for the companies that use cost management, which is significant at 99% significant level. This shows the positive effect of the profit on share value of companies. In addition, examining the relevance of book value with regard to cost management and financial leverage shows that at 5% error level, the impact factor of book value is 0.932 for companies that do not use cost management; this value is also -0.809 for companies that use cost management. This represents the positive and significant impact of book value on share value in companies without cost management and also the negative and significant impact of book value in companies with cost management. In order to evaluate the model, χ^2 statistics was used. Due to the probability obtained for χ^2 , which is equal to 0.000, it can be concluded that the fitted regression model is significant. The coefficient of determination of the corresponding model is equal to 0.372, which shows that more than 37% of changes in share value are determined by variables such as profit, book value, cost management and firm's financial leverage. The Durbin-Watson statistic value is equal to 1.914, which indicates the absence of autocorrelation. Totally, testing the research hypothesis shows that at the 95% confidence level, cost management affects the relevance of earnings and book value by taking into account firm's financial leverage. Consequently,

the second research hypothesis indicating the relevance of accounting information by taking into account the cost management and financial leverage is confirmed at 95% confidence level.

Results and discussion

According to the obtained results, cost management significantly and positively affects share value; however, the effects of firm size are not significant in predicting share value. In addition, this factor is not an appropriate one in pricing stock. Comparing the relevance of profit with regard to the role of cost management and firm size shows that earnings per share positively and significantly affect the value of shares in companies with and without cost management and cost management. In addition, it was found that taking into account the cost management with regard to the firm size influences the relevance of book value so that book value negatively affects share value in firms with book value and positively influences it in firms without cost management. In addition, examining the relevance of earnings and book value by taking into account cost management and company's financial leverage revealed that earnings per share positively and significantly affect the value of shares. Overall, it can be concluded that taking into account cost management and financial leverage affects the relevance of book value and earnings.

Comparing the present study with the other studies conducted in this area, it can be said that Pourheidari (2005) examined the explanatory power of earnings per share and book value in pricing stock and revealed that a significant portion of changes in stock price is explained by earnings per share; in contrast, the book value per share doesn't enjoy a good explanatory power compared with earnings per share. However, the results of the present study indicate the significant role of book value in determining stock price. In an investigation examining the effect of accounting variables and company's features on stock price, Ebrahimi (2010) confirmed a significant inverse relationship between firm size and stock price and found that the smaller the firm size, the higher the share price of the company will be. However, the results of this study do not approve the effects of the firm size on the price. Accordingly, the findings of this study are not consistent with those of Pourheidari (2005) and Ebrahimi (2010). Studying the effect of earnings and book value on the stock price, Wu et al. (2002) concluded that earnings and book value has relevance and affect share value. Anandrajan et al. (2006) showed that book value is an important indicator of stock price and that due to inflation, earnings and book value totally explain more than 70% of stock price changes. Examining the relationship between accounting variables such as the size of economic unit, book value per share, earnings per share and market value per share, Fir (1997) revealed that accounting information has relevance and that a significant relationship exists between future earnings, book value and market value per share. Piri et al. (2008) examined the relationship between the book value of equity and profit as the two accounting variables and stock price and found that accounting information has relevance and that balance sheet and income statement are considered as efficiency factors in evaluating a company. Thus, the findings of the present study confirm those of Wu et al. (2002), Anandrajan et al. (2006) and Fir (1997).

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