

Ownership Structure Impacting Value Relevance of Accounting Information

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Abstract

The paper aims to indicate the impact of ownership structure traced by domestic and foreign shareholders numbers on the value relevance of earnings and book value individually and in aggregate for Jordanian industrial sector within the period from 1992 to 2002. Using price model, domestic and total shareholders numbers significantly declined the value relevance of both individual and aggregate book value but not that of earnings. Foreign shareholders number shows no impact on the value relevance of both accounting variables. Domestic and total shareholders numbers affected more the value relevance of book value than that of earnings. In their combination, share price responds more to book value than earnings when the impact of ownership structure is included. Our findings might provide financial reporting users with a good comprehension regarding the valuation practices and set prime fundamentals for future research that is interested in testing our hypotheses in more details.

Keywords—Share price, Earnings, Book value, Domestic shareholders, Foreign shareholders, Jordan

I. INTRODUCTION

A wide research on whether a company's market value of equity reflects the usefulness of accounting information has been conducted by examining the association between them. A firm market value could be impacted by the relevant accounting information disclosed by that firm. The indirect role of financial instruments productive capacity (such as stocks) is in separating firm management away from its owners which could increase public confidence and attract more investments. Additionally, it is a fact that many factors in a country might affect equity market value. While share index could reflect the trend and level of economic developments in a certain extent [14], one important economic factor that might affect share value is attracting more investments to a company. Since increasing such investments in a company influences its ownership structure, our paper tries to indicate whether ownership structure matters to firm value.

The impact of ownership structure proxied by different measures such as institutional, concentration, governmental, percentage and others on firm value has been well examined in prior studies and a mixed of significant results has been concluded [9], [21], [10], [8] and [6].

Whereas accounting information has been considered as a meaningful resource for firm valuation, it is important to indicate whether ownership structure in other proxies such as domestic and foreign shareholders numbers could significantly impact the relationship between accounting information and market equity value (as value relevance) and whether those proxies have the ability to guide market participants in evaluating their investments in stock exchanges.

Recently, valuation model has been expanded to include different accounting and non-accounting information as other information according to Ohlson model (1995). Our paper is stimulated by the valuation research that has investigated the impact of ownership structure as a non-accounting information on the accounting information relevance [5], [4], [18]. Consequently, the current study tries to test whether non-accounting information could be an indicator to firm value.

Using price model, the impact of percentage foreign ownership in the local firm on the value relevance of its earnings and book value has been tested by [5] and [6] in Korea and Russia respectively. In Jordan, while the impact of percentage share of foreign companies in local economy on the value relevance of earnings has been examined by [4], the impact of foreign and local shareholders number on the value relevance of earnings and book value has been tested by [18]. Both studies used return model. The current study extends the previous ones by investigating the impact of domestic and foreign shareholders number on the value relevance of earning and book value in Jordan employing price model.

Accordingly, while relevant accounting information might reflect firm value and to be more close to our topic, we are interested in testing how could non-accounting information traced by domestic and foreign shareholders number (as ownership structure proxies) impact the accounting information relevance. Therefore, our study tries to investigate whether extending the number of those proxies impacts the value relevance of earnings and book value individually and in aggregate for Jordanian industrial companies within the period from 1992 to 2002.

Our paper addresses the following questions: (1) does extending domestic or/and foreign investments in a company have a significant impact on its accounting information relevance? And (2), which ownership proxy among domestic, foreign shareholders or their total number more impacts the accounting information relevance?

Tracing this impact could provide a significant assistance in alleviating the information asymmetry by providing different users of financial reporting with a guideline to more understand the nature of firm non-accounting information and its effect on accounting information relevance.

Since the impact of ownership structure on the accounting information relevance has been well researched in developed countries, examining this impact in Jordan as a developing country presents further evidence which might minimize the gap in valuation research. By providing empirical evidence from Jordan as emerging market, we try to examine whether the impact of the ownership structure proxies keeps the same significant trend that is conducted by prior studies on this area of research in developed regions.

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II. JORDANIAN INVESTMENT ENVIRONMENT

According to the annual reports (1980s and 1990s) of [3], [12] and [7], Jordan had suffered the imbalanced economy and productivity in 1980s which ended with a severe economic crisis accompanied with the occurrence of the Gulf Crisis (1988-1991). Starting 1991, Jordanian economy has reached its worst situation after the Gulf Crisis (1990-1991) where 30 – 35% of population was out of work, suffering high inflation and a population of around 25 – 30% fell below the poverty line [1].

To face this problem, Jordanian government has adopted economic reform program (1992 - 1998) on which economy is restructured and built to be attractive for investments in general and foreign direct investment in particular. The mentioned program has been established to control Jordan indebtedness, curb inflation, ensure Jordanian Dinar stability and increase its confidence, feed the currency reserves with foreign currency and reduce the budget deficit. The above annual reports reveal that Jordan experienced high growth within 1992 to 1995 and an economic slowdown within 1996 to 1998. This economic reform program has continued for another three years from 1999 to 2001.

The main objectives for the economic reform program were; improving economic efficiency and productivity, enhancing private sector role in utilities, increasing domestic private investments and attracting foreign ones and finally transferring foreign technologies and skills. This program resulted in issuing and amending of more than 200 laws legislation such as investment promotion law (1995), privatization law (1996), companies law (1997), customs law (1998), Aqaba special economic zone (2001), patents and trademarks laws (1999), joining both the world trade organization membership and the free trade agreement with the United States on 2000 and the European free trade association on 2001, competition and securities laws (2002) in addition to many other laws. Therefore, Jordanian economic situation has impacted companies' ownership structure and accounting reports and in turn their information relevance.

The significant changes in ownership structure have increased the need for public disclosure, and the need for Jordanian accounting environment to be more developed in terms of strengthening corporate governance of companies and accounting practices [2].

As industrial companies in developed countries and recently in developing ones prosper their economics and became an important cause for a country's economic growth, our research population is all Jordanian industrial companies. While the global trade is based on the manufactured goods, other sectors depend on them in addition to creating different jobs by this sector.

Directly or indirectly, the mentioned changes in Jordanian economy have affected its industrial sector companies then their ownership structure. This sector is one of the largest sectors in Amman Stock Exchange (ASE). According to ASE available database, the number of total industrial companies has increased from 62 to 91 companies within the period from 1992 to 2002 (an increase of 32%) forming 44 – 49% of ASE population.

Among the large number of companies in ASE, the industrial ones showed many advantages where within the last five years of the researched period, this sector is considered as the largest in trading volume, market capitalization, foreign ownership and foreign market capitalization of around 35 – 50%, 24 – 30%, 26 – 31% and 37 – 44% of ASE population respectively. Therefore, the period from 1992 to 2002 has been selected to examine the impact of changes in ownership structure on the accounting information relevance in this sector.

III. LITERATURE REVIEW

Since debt financing provides more investments opportunities and increases firm profitability, larger shareholders equity proportion could strengthen firm financial position. According to capital market structure theory, firms with internal or external funds may maximize their value by adjusting their capital structure to enhance their position in stock market. This could increase firms market value and results in reducing their capital cost and in turn motivates their managers to expand the shareholders number [2]. According to [16], firms try to lower their share prices to increase their shareholders and in turn firm value. This indicates that for firm with small shareholder number, additional shareholders provide a clear increase in firm value.

Shareholders number is the number of domestic or foreign persons who own a share or share of stock in a firm and got a financial return. Since ownership structure could affect firms operation, profitability and then their value, large shareholders number (domestic or foreign) might impact a firm performance and in turn its value. Extending shareholders number represents a concentrated foreign or domestic ownership in which the former enhances more the economic performance than the latter [13].

Large share of equity represents large number of domestic and foreign shareholders and the number of shares that they hold. In local companies, domestic shareholders hold larger share of equity than foreign shareholders and recently this notion outspreads in developed and developing countries [8].

In a host country, many factors contribute in attracting foreign investments such as lack of political risk, banking secrecy, low risk of purchasing power and flexibility in reducing taxes [19]. Foreign ownership creates incentives for firms to be more involved in corporate social responsibility and thus to have superior environmental performance [6]. The greater the firm economic efficiency comes from the higher proportion of foreign ownership of this firm which has positive association with its performance [4]. If the country has different languages and more controlled by the rest of the world, domestic investments are superior to foreign ones in that country's market. Furthermore, if a host market has larger market capitalization, lower transaction costs and be more developed, foreign investments are superior to domestic ones in that market [8].

[8] argued that firms could enhance their value and enjoy a lower capital cost by maximizing foreign investments and minimizing domestic shareholders proportion. They concluded that both ownerships significantly and positively impact firm valuation. Domestic and foreign shareholders movement to (far away) optimal global market capitalization enhances (lessen) firm value that could be improved with more diversified shareholder base. In Jordan, [21] examined the impact of ownership structure mix (government, institutional, foreign and their mix) on 167 of ASE companies' performance and failure for the period 1989 - 2006. He concluded an important role for foreign ownership in firm performance and value.

Since firms attempt to cover the needs of their large domestic or foreign shareholders numbers and capture country citizens' trust by adopting high quality disclosure and foreign ownership in a company is positively related to its economic performance, we expect to find a significant positive impact for domestic and foreign shareholders numbers on earnings and book value relevance in Jordan.

Investigating the impact of shareholders number on the disclosure level has been researched and a significant positive impact has been concluded [15]. Our paper extends these studies by testing the impact of shareholders numbers on the value relevance of earnings and book value that has not been well researched before. Since firms with greater shareholders number attempt to enhance their disclosure quality to assure relevant information oncoming for their shareholders, shareholders number has positively impacted the financial disclosure [15]. As this impact on the accounting information relevance is not well researched, this study contributes in investigating the effect of shareholders number on earnings and book value relevance.

[20] found that while domestic shareholders heavily rely on earnings, foreign shareholders rely on equity book values in evaluating stocks in China. In their sample of 27 countries across the world, [9] found significant negative impact for domestic and foreign ownerships on firm value. [10] found significant positive impact for qualified foreign institutional investors on firm value in Taiwan. A significant impact for foreign ownership on earnings relevance has been found in Korean market [5] and in Russian market [6].

Using return model for Jordanian companies within the period 1994-2005, [4] found that foreign shareholders have significantly impacted the value relevance of earnings, and within the period 1993-2002, [18] argued that extending the number of domestic shareholders has significantly affected the value relevance of earnings individually and in a combination, while extending the number of foreign ownership has significantly affected the individual book value relevance and that of earnings in combination. We are motivated to employ price model in investigating this impact.

IV. THEORETICAL CONCEPTUAL AND FRAMEWORK

Positive accounting theory assumes that logically, firm management and its shareholders attempt to increase their interests and for present period, managers are more likely to select accounting policies that tend to maximize earnings and in turn the current value of their bonuses. According to agency theory, asymmetric information is a main issue since managers know more about firm inside information than shareholders. While a firm with high (low) value is associated with lower (higher) asymmetric information [11], this problem could be successfully alleviated by providing relevant information to shareholders and other interested parties as shown in Figure 1.

Since relevant information reflects firm value, valuation model is used to estimate the relationship between firm market value and its accounting information and then detect the accounting information relevance. However, releasing relevant information could minimize the asymmetric information and in turn support stock market.

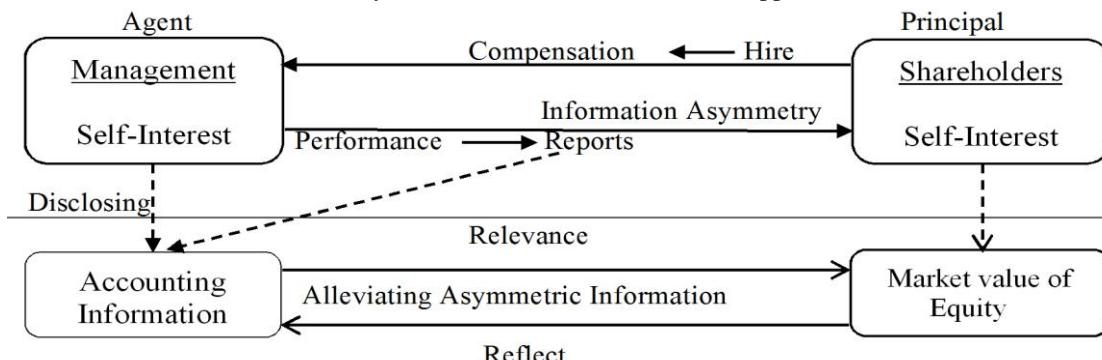


Fig. 1 Management- Shareholders Relationship Regarding Agency and Valuation Theories

All interested parties (particularly shareholders) must have the same access of relevant information to assist them in predicting future trends of their business value. Releasing more relevant information contributes in attracting more domestic and foreign investments which significantly and positively affected firm share price appraisal [2]. Since domestic shareholders try to know more information about all firms in their country and foreign shareholders tend to have more knowledge about large firms than about small ones, this encourages management to release relevant information that reflects firm efficiency and in turn raises its worth. As a response, research has expanded the valuation theory to include the impact of different non-accounting variables such as ownership structure on the value relevance of the accounting ones by interacting them in the valuation models.

Extending firm shareholders number could result in increasing its market value and reducing the cost of capital, thus managers are motivated to expand firm shareholders number [16]; [2]. Companies listed in a stock exchange have to disclose more financial information if they have greater number of shareholders [15]. Listing on the stock exchange can increase firm shareholders number which could positively and significantly affect the share price appreciation [2].

Following previous research, the current paper replaces the other information in Ohlson model's by domestic and foreign shareholders numbers to capture their impact on the value relevance of earnings and book value individually and in aggregate. Since domestic and foreign shareholders affected the relationship between accounting information and stock return [5], [4], [18], this paper provides new evidence regarding the impact of domestic and foreign shareholders numbers on the association between earnings and book value with share price in Jordan as illustrated in Figure 2.

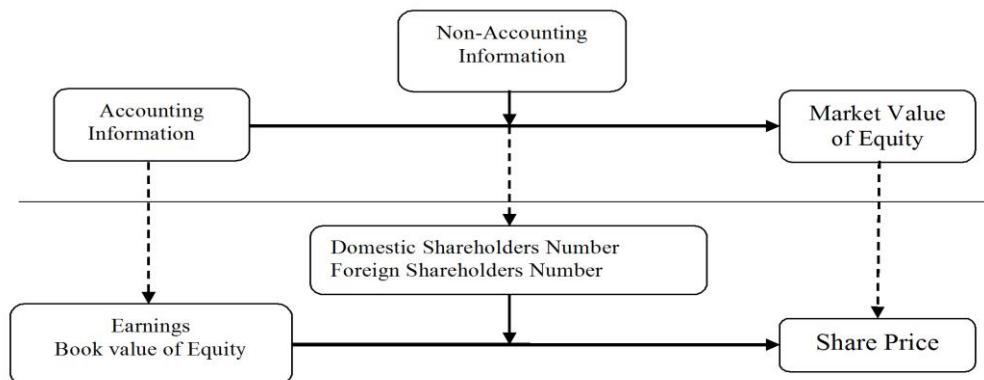


Fig. 2 Impact of Ownership Structure on Value Relevance of accounting Information

Regarding our variables and based on the aforementioned theoretical relationships, our conceptual framework is as in Figure 3.

Independent Variables Dependent Variable

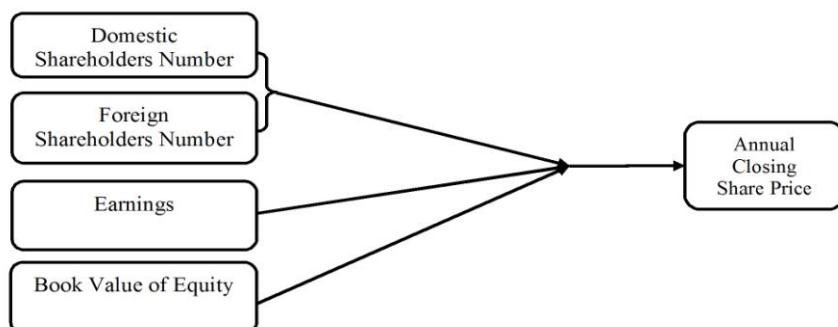


Fig. 3 Conceptual framework

V. HYPOTHESES DEVELOPMENT, MODELS AND SAMPLE SELECTION

Since this study attempts to capture the impact of ownership structure on the accounting information relevance, it employs the ownership (via two proxies) as non-accounting information replaced the other information (v) proposed in Ohlson model (1995). We hypothesized the impact of ownership proxies on the value relevance of individual earnings and book value and both in a combination as;

H1a: Domestic shareholders number impacts earnings relevance.

H1b: Domestic shareholders number impacts book value relevance.

H1c: Domestic shareholders number impacts more book value relevance than that of earnings in their combination.

H2a: Foreign shareholders number impacts earnings relevance.

H2b: Foreign shareholders number impacts book value relevance.

H2c: Foreign shareholders number impacts more book value relevance than that of earnings in their combination.

The results from testing these hypotheses have to be able to answer our first question. For the second question regarding which ownership proxy among domestic, foreign shareholders or their total number is more affecting the value relevance of accounting information, therefore our third hypothesis is:

H3a: Total shareholders number impacts earnings relevance.

H3b: Total shareholders number impacts book value relevance.

H3c: Total shareholders number impacts more book value relevance than that of earnings in their combination.

Our models are:

$$P_{it} = \delta_0 + \delta_1 DOM_{it} + \delta_2 EPS_{it} + \delta_3 EPS_{it}^* DOM_{it} + e_{it} \quad (1a)$$

$$P_{it} = \omega_0 + \omega_1 DOM_{it} + \omega_2 BVPS_{it} + \omega_3 BVPS_{it}^* DOM_{it} + e_{it} \quad (1b)$$

$$P_{it} = \mu_0 + \mu_1 DOM_{it} + \mu_2 EPS_{it} + \mu_3 BVPS_{it} + \mu_4 EPS_{it}^* DOM_{it} + \mu_5 BVPS_{it}^* DOM_{it} + e_{it} \quad (1c)$$

$$P_{it} = \phi_0 + \phi_1 FOR_{it} + \phi_2 EPS_{it} + \phi_3 EPS_{it}^* FOR_{it} + e_{it} \quad (2a)$$

$$P_{it} = \lambda_0 + \lambda_1 FOR_{it} + \lambda_2 BVPS_{it} + \lambda_3 BVPS_{it}^* FOR_{it} + e_{it} \quad (2b)$$

$$P_{it} = \Psi_0 + \Psi_1 FOR_{it} + \Psi_2 EPS_{it} + \Psi_3 BVPS_{it} + \Psi_4 EPS_{it}^* FOR_{it} + \Psi_5 BVPS_{it}^* FOR_{it} + e \quad (2c)$$

$$P_{it} = \gamma_0 + \gamma_1 TOT_{it} + \gamma_2 EPS_{it} + \gamma_3 EPS_{it}^* TOT_{it} + e_{it} \quad (3a)$$

$$P_{it} = \Omega_0 + \Omega_1 TOT_{it} + \Omega_2 BVPS_{it} + \Omega_3 BVPS_{it}^* TOT_{it} + e_{it} \quad (3b)$$

$$P_{it} = \varphi_0 + \varphi_1 TOT_{it} + \varphi_2 EPS_{it} + \varphi_3 BVPS_{it} + \varphi_4 EPS_{it}^* TOT_{it} + \varphi_5 BVPS_{it}^* TOT_{it} + e_{it} \quad (3c)$$

where for a firm i in a year t , P_{it} : annual closing share price; EPS_{it} : earnings per share; $BVPS_{it}$: book value of equity per share; DOM_{it} , FOR_{it} and TOT_{it} : domestic, foreign and total shareholders numbers respectively as dummy variables with value 1 for firm with domestic, foreign and total shareholders numbers greater than median shareholders number in our sample, 0 otherwise.; and e_{it} : error term.

Following studies of [4] and [18] and for all our models, coefficients with number 1 represent the value relevance of ownership proxies by their own rights. Coefficients δ_2 , μ_2 , ϕ_2 , Ψ_2 , γ_2 , and φ_2 represent the value relevance of earnings without the impact of ownership structure proxies, while coefficients $\delta_2 + \delta_3$, $\phi_2 + \phi_3$ and $\gamma_2 + \gamma_3$, represent share price response to individual earnings when the impact of ownership structure proxies is included. Coefficients ω_2 , μ_3 , λ_2 , Ψ_3 , Ω_2 , and φ_3 represent the value relevance of book value of equity without the impact of ownership structure proxies, while coefficients $\omega_2 + \omega_3$, $\lambda_2 + \lambda_3$, and $\Omega_2 + \Omega_3$ represent the response of share price to this variable individually when the impact of ownership structure proxies is included. Coefficients $\mu_2 + \mu_4$, $\Psi_2 + \Psi_4$, and $\varphi_2 + \varphi_4$ represent share price response to the aggregate earnings impacted by ownership proxies, while coefficients $\mu_3 + \mu_5$, $\Psi_3 + \Psi_5$, and $\varphi_3 + \varphi_5$ represent share price response to the aggregate book value impacted by ownership proxies.

We examine whether the selected ownership structure proxies impact the association between share prices and accounting information within the economic reform program operating period from 1992 to 2002. The year 1992 is the study's first financial year with entire data regarding firm share prices, accounting information and our ownership proxies.

Our sample includes 56 industrial companies which represents around 57- 90% of ASE industrial sector companies and around 26 - 44% of ASE populations within the selected period. Using secondary data gathered from the financial statements and database of ASE information center, all firms with complete data for the selected variables and period are included neglecting those registered after 1992 or have incomplete information related to study's variables. Total of 7392 observations-years have been analysed using Statistical Package for the Social Sciences (SPSS).

VI. FINDINGS, DISCUSSION AND CONCLUSIONS

Statistically, we lost one observation regarding annual closing share price. Research data is dealt to meet all regression assumptions. From Table 1, domestic shareholders number shows significant impact on the value relevance of the individual book value but not that of earnings. Extending domestic shareholders number insignificantly declines the value relevance of earnings from 0.758 (δ_2) to 0.670 ($\delta_2 + \delta_3$) and significantly declines that of book value from 0.803 (ω_2) to 0.414 ($\omega_2 + \omega_3$). These results support H1b but not H1a. For the aggregate earnings and book value, although domestic shareholders number is irrelevant in its own right, it significantly impacts the value relevance of book value but not that of earnings. Extending domestic shareholders number insignificantly increases the value relevance of combined earnings from 0.551 to 0.629 and significantly declines that of book value from 0.323 to -0.002. This result supports H1c.

TABLE 1. IMPACT OF DOMESTIC SHAREHOLDERS NUMBER

$P_{it} = \delta_0 + \delta_1 DOM_{it} + \delta_2 EPS_{it} + \delta_3 EPS_{it}^* DOM_{it} + e_{it}$	(1a)
$P_{it} = \omega_0 + \omega_1 DOM_{it} + \omega_2 BVPS_{it} + \omega_3 BVPS_{it}^* DOM_{it} + e_{it}$	(1b)
$P_{it} = \mu_0 + \mu_1 DOM_{it} + \mu_2 EPS_{it} + \mu_3 BVPS_{it} + \mu_4 EPS_{it}^* DOM_{it} + \mu_5 BVPS_{it}^* DOM_{it} + e_{it}$	(1c)
Model 1a	
Variables	Coef.
Constant	5.535 ***
δ_1	.038 .490
δ_2	.758 9.766 ***
δ_3	-.088 -.984
Adj. R ²	.484
F-stat	62.199 ***
Model 1b	
Variables	Coef.
Constant	2.302 **
ω_1	.229 2.209 **
ω_2	.803 7.809 ***
ω_3	-.389 -2.816 ***
	.335
	33.855 ***
Model 1c	
Variables	Coef.
Constant	2.934 ***
μ_1	.133 1.462
μ_2	.551 4.279 ***
μ_3	.323 2.401 ***
μ_4	.078 .529
μ_5	-.325 -1.809 *
	.494
	39.240 ***

*, ** and *** Significant at 10%, 5% and 1% levels.

All variables are defined before.

The results might be explained by that domestic shareholders number has negative impact on firm valuation [9]. The results are consistent with [8] who concluded that enhancing firm value could be in reducing domestic ownerships and attracting more foreign ownerships. The results are inconsistent with [18] and [20] where the former argued that extending the number of domestic owners significantly affected the value relevance of combined earnings, while the latter argued that domestic shareholders rely on earnings in share evaluating.

Table 2 shows that foreign shareholders number is irrelevant in its own right. This ownership proxy showed insignificant impact on the value relevance of earnings and book value individually and in aggregate. This result does not support H2a, H2b and H2c. This unexpected result is consistent with [18] for individual earnings and combined book value, while it is inconsistent with studies of [5], [6] and [4] that found significant impact for foreign equity proportion on the value relevance of accounting information and that of [20] which argued that foreign shareholders rely on book value in share evaluating.

TABLE 2. IMPACT OF FOREIGN SHAREHOLDERS NUMBER

$P_{it} = \phi_0 + \phi_1 FOR_{it} + \phi_2 EPS_{it} + \phi_3 EPS_{it}^* FOR_{it} + e_{it}$	(2a)							
$P_{it} = \lambda_0 + \lambda_1 FOR_{it} + \lambda_2 BVPS_{it} + \lambda_3 BVPS_{it}^* FOR_{it} + e_{it}$	(2b)							
$P_{it} = \Psi_0 + \Psi_1 FOR_{it} + \Psi_2 EPS_{it} + \Psi_3 BVPS_{it} + \Psi_4 EPS_{it}^* FOR_{it} + \Psi_5 BVPS_{it}^* FOR_{it} + e_{it}$	(2c)							
Model 2a	Model 2b							
Variables	Coef.	t-statistics	Variables	Coef.	t-statistics	Variables	Coef.	t-statistics
Constant		6.131 ***	Constant		3.670 ***	Constant		4.279 ***
ϕ_1	-.032	-.406	λ_1	.075	.725	Ψ_1	.006	.063
ϕ_2	.689	9.148 ***	λ_2	.662	6.876 ***	Ψ_2	.559	4.845 ***
ϕ_3	.018	.183	λ_3	-.166	-1.274	Ψ_3	.191	1.490
Adj. R ²	.481			.314			.490	
F-stat	61.603 ***			33.907 ***			37.871 ***	

*** Significant at 1% levels.

All variables are defined before.

Table 3 makes clear that the total number of shareholders reported significant impact on the value relevance of individual book value but not that of earnings. Extending total shareholders number insignificantly declines the value relevance of earnings from 0.744 (γ_2) to 0.667 ($\gamma_2 + \gamma_3$) and significantly declines that of book value from 0.796 (Ω_2) to 0.416 ($\Omega_2 + \Omega_3$). Our results support H3b but not H3a. For the aggregate earnings and book value, although total shareholders number is irrelevant in its own right, it significantly affected the value relevance of book value but not that of earnings. In their combination, extending total shareholders number insignificantly increases the value relevance of earnings from 0.542 (ϕ_2) to 0.640 ($\phi_2 + \phi_4$) and significantly declines that of book value from 0.311 (ϕ_3) to 0.007 ($\phi_3 + \phi_5$). This result supports H3c. These results are inconsistent with [2] who concluded that increasing shareholders number could increase firm market value and positively and significantly affected share price evaluating.

It is unexpected that the selected ownership proxies have no impact on the value relevance of earnings individually and in aggregate. As a conclusion, both domestic and total shareholders numbers declined the value relevance of book value individually and in aggregate, while insignificant impact has been found for foreign shareholders number.

TABLE 3. IMPACT OF TOTAL SHAREHOLDERS NUMBER

$P_{it} = \gamma_0 + \gamma_1 TOT_{it} + \gamma_2 EPS_{it} + \gamma_3 EPS_{it}^* TOT_{it} + e_{it}$	(3a)							
$P_{it} = \Omega_0 + \Omega_1 TOT_{it} + \Omega_2 BVPS_{it} + \Omega_3 BVPS_{it}^* TOT_{it} + e_{it}$	(3b)							
$P_{it} = \varphi_0 + \varphi_1 TOT_{it} + \varphi_2 EPS_{it} + \varphi_3 BVPS_{it} + \varphi_4 EPS_{it}^* TOT_{it} + \varphi_5 BVPS_{it}^* TOT_{it} + e_{it}$	(3c)							
Model 3a	Model 3b							
Variables	Coef.	t-statistics	Variables	Coef.	t-statistics	Variables	Coef.	t-statistics
Constant		5.738 ***	Constant		2.420	Constant		3.153 ***
γ_1	.018	.232	Ω_1	.213	2.066 **	φ_1	.108	1.180
γ_2	.744	9.837 ***	Ω_2	.796	7.900 ***	φ_2	.542	4.693 ***
γ_3	-.077	-.788	Ω_3	-.380	-2.811 ***	φ_3	.311	2.294 **
Adj. R ²	.483			.335		φ_4	.098	.609
F-stat	62.075 ***			33.919 ***		φ_5	-.304	-1.702 *

*, ** and *** Significant at 10%, 5% and 1% levels.

All variables are defined before.

Compared with developed countries, the study's results might be related to Jordan's specific factors that is to say the limited number of shareholders or the accounting reporting system and corporate governance that affect the value relevance of accounting information [18]. Our results might be just in the industrial sector of ASE for the selected period or it might be due to the small size of our sample or it could be the true pattern if they are supported by the future research.

One possible explanation for our results could be the effect of the volatility in our dependent variable values (annual closing share price) within this period. Although the declined value relevance of book value and the insignificant impact on earnings are unexpected, our findings present an evidence regarding this impact that might motivate future studies to extend research in this area. Therefore, future studies are encouraged to increase sample size by examining different sectors and markets or to more investigate this impact in Jordan (pre and post Gulf Crisis or economic reform program) and other countries across the world for different periods to enrich literature in this area.

REFERENCES

- [1] Alakra, M. Ali, M. and Marashdeh, O., Development of accounting regulation in Jordan, *The International Journal of Accounting*, Vol. 44 No. 2, pp. 163-186, 2009.
- [2] Amihud, Y., Mendelson, H.,and Uno, J., Number of shareholders and stock prices: Evidence from Japan", *The Journal of Finance*, Vol. 54 No. 3, pp. 1169-1184, 1999.
- [3] Amman Stock Exchange -ASE- (1980s – 1990s), Annual Reports", [online]. Available: <http://www.ase.com.jo/en/node/536>
- [4] Anandarajan, A. and Hasan.I., Value relevance of earnings: Evidence from Middle Eastern and North African countries, *Advances in Accounting, Incorporating Advances in International Accounting*, Vol. 26 No. 2, pp. 270-279, 2010
- [5] Bae, K. H. and Jeong, S. W., The value relevance of earnings, book value, ownership structure, and business group affiliation: Evidence from Korean business groups, *Journal of Business Finance and Accounting*, Vol. 34 No. 5-6, pp. 740-766, 2007.
- [6] Bagaeva, A. (2010), The value relevance of firms' integral environmental impact: Evidence from Russia, proceedings of the Sixth Asia Pacific Interdisciplinary Research in Accounting conference (APIRA) in Sydney, Australia, 11-12 July, 2010 [online]. available : http://apira2010.econ.usyd.edu.au/conference_proceedings/ (accessed 12 September 2013) pp. 1-31.
- [7] Central Banks of Jordan, (1980s-1990s), Annual Reports, [online]. Available: <http://www.cbj.gov.jo/>
- [8] Chan, K., Covrig, V.,and Ng, L., Does home bias affect firm value? Evidence from holdings of mutual funds worldwide, *Journal of International Economics*, Vol. 78, pp. 230–241, 2009.
- [9] Ferreira, M. and Matos, P., The colors of investors' money: Which firms attract institutional investors from around the world?, *Journal of Financial Economics*, Vol. 88 No. 3, pp. 499-533, 2008.
- [10] Huang, R. and Shiu, C., Local effects of foreign ownership in an emerging financial market: Evidence from qualified foreign institutional investors in Taiwan, *Financial Management*, Vol. 38 No. 3, pp. 567 – 602, 2009.
- [11] Jiraporn, P., Miller, G. A., Yoon, S. S., Kim, Y S., Is earnings management opportunistic or beneficial? An agency theory perspective, *International Review of Financial Analysis*, Vol. 17, pp. 622–634, 2008.
- [12] Jordan Securities Commission, (1980s –1990s), Annual Reports, Available: http://www.jsc.gov.jo/Public/english.aspx?site_id=1&Lang=3&Page_Id=1575&Menu_ID=252&Menu_ID2=245
- [13] Kocenda, E., and Svejnar, J., Ownership and firm performance after large-scale privatization, Working Paper, No. 471a, The William Davidson Institute, University of Michigan, Business School, January, 2003.
- [14] Li, H. and Wen, Z., Causal Relation Between Macro Economy and Industrial Index Based on Regression Analysis, *Journal of Theoretical and Applied Information Technology*, Vol. 46 No.2, pp. 754-760, 2012.
- [15] Malone, D., Fries, C., and Jones, T., An empirical investigation of the extent of corporate financial disclosure in the oil and gas industry, *Journal of Accounting, Auditing and Finance*, Vol. 8, pp. 249-273, 1993.
- [16] Merton, R., A simple model of capital market equilibrium with incomplete information, *Journal of Finance*, Vol. 42, pp. 483-510, 1987.
- [17] Ohlson, J., Earnings, book values and dividends in equity valuation, *Contemporary Accounting Research*, Vol. 11 No. 2, pp. 661-687, 1995.
- [18] Shamki, D., Impact of non-accounting information on the accounting information: The case of Jordan, *International Journal of Business and Social Research*, Vol. 2 No. 1, pp. 9-24, 2012.
- [19] Stulz, R. M. and Wasserfallen, W., Foreign equity investment restrictions, capital flight, and shareholder wealth maximization: Theory and evidence, *The Review of Financial Studies*, Vol. 8 No. 4, pp. 1019-1057, 1995.
- [20] Wu, S., Koo, M., and Kao, T., Comparing the value relevance of accounting information in China: Standard and factors Effects, working paper , 2005.
- [21] Zeitun, R., Ownership structure, corporate performance and failure: Evidence from panel data of emerging market the case of Jordan, *Corporate Ownership and Control*, Vol. 6 No. 4, pp. 96-117, 2009.