THE INFLUENCE OF INSTITUTIONAL FACTORS ON THE VALUE RELEVANCE OF ACCOUNTING INFORMATION: EVIDENCE FROM JORDAN

DHIAA SHAMKI JABAR

DOCTOR OF PHILOSOPHY
UNIVERSITI UTARA MALAYSIA
May 2012

THE INFLUENCE OF INSTITUTIONAL FACTORS ON THE VALUE RELEVANCE OF ACCOUNTING INFORMATION: EVIDENCE FROM JORDAN

By

DHIAA SHAMKI JABAR

Thesis Submitted to
Othman Yeop Abdullah Graduate School of Business,
Universiti Utara Malaysia,
in Fulfillment of the Requirement for the Degree of Doctor of Philosophy
May 2012

PERMISSION TO USE

In presenting this thesis in fulfillment of the requirements for the degree of Doctor of Philosophy from Universiti Utara Malaysia, I agree that the University Library make it freely available for inspection. I further agree that permission for copying of this thesis in any manner, in whole or in part, for scholarly purpose may be granted by my supervisor or, in his absence by the Dean of Othman Yeop Abdullah Graduate School of Business. It is understood that any copying or publication or use of this thesis or parts thereof for financial gain shall not be given to me and to Universiti Utara Malaysia for any scholarly use which may be made of any material from my thesis.

Request for permission to copy or make other use of materials in this thesis, in whole or in part should be addressed to:

Dean of Othman Yeop Abdullah
Graduate School of Business
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman,

Malaysia

ABSTRACT

The purpose of the study was to present empirical evidence on the value relevance of accounting information in Jordan; whether institutional factors influence this value relevance and to determine which share price proxy is more reliable in indicating value relevance. The study examines the influence of institutional factors (foreign ownership, trading volume, financial disclosure time, financial disclosure level, number of shareholders, listing status, company's age and type of industry) on the value relevance of accounting information (earnings, book value and cash flows relative to three share price proxies including average annual share price, annual closing share price and share price after a three-month period following the financial year-end) for Jordanian services and industrial companies during the period from 2004-2009. The study found that book value has the greatest value relevance and the best predictor for firm value. The value relevance of earnings and book value is greater for companies having foreign ownership, larger trading volume, larger shareholder numbers that conform to financial disclosure time, that are listed on the main board and that are older in age. Value relevance of book value is greater for companies complying with disclosure requirements and for services companies. Finally, annual closing share price proxy is more reliable in detecting the value relevance of accounting information. The findings suggest that market participants might be able to extract the firm value through the aforementioned institutional factors. The study extends the valuation model by including cash flows together with earnings and book value. The findings demonstrate that there is a shift away from earnings towards book value as the basis of firm valuation.

Keywords: Value Relevance, Accounting Information, Institutional Factors, Jordan.

ABSTRAK

Tujuan kajian ini ialah untuk menjelaskan kajian empirikal terkini tentang nilai kerelevanan maklumat perakaunan di Jordan. Kajian ini meneliti sama ada faktor-faktor institusi mempengaruhi dan menentukan proksi harga saham yang boleh dipercayai sebagai petunjuk kepada nilai kerelevanan. Kajian ini mengkaji pengaruh faktor-faktor institusi seperti pemilikan asing, jumlah dagangan, masa penzahiran kewangan, tahap penzahiran kewangan , bilangan pemegang saham, status penyenaraian, usia syarikat dan jenis industri. Faktor-faktor ini mempunyai pengaruh terhadap nilai kerelevanan pendapatan, nilai buku dan aliran tunai berbanding dengan tiga proksi harga saham iaitu purata harga saham secara tahunan, harga saham yang ditutup pada setiap akhir tahun dan harga saham selepas tiga bulan berakhirnya tahun kewangan. Penelitian dilakukan terhadap syarikat-syarikat perkhidmatan dan perindustrian di Jordan dalam tahun 2004 hingga 2009. Hasil kajian juga mendapati bahawa nilai buku mempunyai nilai kerelevanan yang lebih tinggi dan merupakan faktor peramal terbaik bagi nilai firma. Kerelevanan nilai pendapatan dan nilai buku adalah lebih besar bagi syarikat-syarikat yang mempunyai pemilikan asing, jumlah dagangan yang lebih besar, bilangan pemegang saham yang lebih tinggi, menepati masa penzahiran kewangan, tersenarai dalam papan utama dan syarikat-syarikat yang telah lama ditubuhkan. Selain itu, nilai kerelevanan bagi nilai buku juga didapati lebih besar bagi syarikat-syarikat yang mematuhi arahan pendedahan dan lebih menonjol bagi syarikat-syarikat yang menawarkan perkhidmatan. Akhirnya, proksi harga saham tutup tahunan lebih boleh dipercayai dalam mengesan nilai kerelevanan maklumat perakaunan. Hasil penemuan kajian ini mengambarkan bahawa peserta pasaran mungkin dapat menyaring nilai firma melalui faktor-faktor institusi yang dinyatakan di atas. Kajian ini juga mengubah suai model penilaian dengan memasukkan aliran tunai bersama-sama dengan pendapatan dan nilai buku. Hasil kajian menunjukkan bahawa terdapat peralihan ketara daripada pendapatan kepada nilai buku sebagai asas penilaian firma.

Kata kunci: Nilai Kerelevanan, Maklumat Perakaunan, Faktor-Faktor Institusi, Jordan.

ACKNOWLEDGMENT

All praise and thanks are to Allah, the most Gracious and the most Merciful and the peace and praise to our beloved Prophet Mohammed S.A.W. Thanks are to Allah for his help, guidance and Alhamdulillah for granting me the patience and perseverance to successfully complete this thesis.

Words can never truly reflect my appreciation for so many people for their contributions and assistance. I would like to express my deep gratitude to my supervisor Assoc. Prof. Dr. Azhar Abdul Rahman for his guidance, encouragement, patience, comments and feedback on earlier versions of this thesis which provided interest and useful insights.

Likewise, I would like to extend a very special thanks to Prof. Dr. Normah Hj. Omar and Assoc. Prof. Dr. Wan Nordin Wan Hussin for examining my work and for their constructive criticism. Their valuable comments and questions undoubtedly contributed in the development of this thesis. Thanks to Prof. J.S. Cramer, University Van Amsterdam and Prof. A. Anandarajan, New Jersey Institute of Technology Course for their cooperation and valuable advices.

Thank you to University Utara Malaysia and Graduate School of business for providing me the opportunity to undertake my PhD. My gratitude and thanks for all friends who always support me directly or indirectly in one way or another, many thanks for all.

Finally, my heartfelt appreciation and thanks to my mother for her prayers and to my lovely wife and sons, Ahmed, Mohammed and Mahmud for their love, care, support and patience.

TABLE OF CONTENTS

CHAPTER TWO: LITERATURE REVIEW

CHAPTER FOUR: FINDINGS

CHAPTER FIVE: DISCUSSION

CHAPTER SIX: CONCLUSIONS, CONTRIBUTIONS, AND SUGGESTION FOR FUTURE RESEARCH

LIST OF TABLES

Note: All tables are self developed.

LIST OF FIGURES

Note: All figures are self developed.

LIST OF APPENDICES

LIST OF ABBREVIATIONS

AGE	Company's Age
AP	Average Annual Share Price
ASE	Amman Stock Exchange
ATM-share price	Share Price after Three Months Period Following the Financial Year-End
BV	Book Value of Equity
CF	Cash Flows from Operation
CP	Annual Closing Share Price
CSRSC	Concept and Standards Research Study Committee
DLVL	Disclosure Level
DTIM	Disclosure Time
DVs	Dependent Variables
E	Earnings
EMH	Efficient Market Hypotheses
FASB	US Financial Accounting Standards Board
FORN	Foreign Ownership
FS	Financial Statements
IAS	International Accounting Standards
ID number	Identification Diagnostic Number
IFRS	International Financial Reporting Standards
IND	Industrial Companies

IVs	Independent Variables
JCB	Jordan Central Bank
JSC	Jordan Securities Commission
LEVRG	Company's Leverage
LSTUS	Listing Status
MNCs	Multinational Companies
MTI	Minimum Trading Unit
ONS	Office for National Statistics in UK
SHRHNO	Shareholders Number
SIZE	Company's Size
SRV	Services Companies
TRDV	Trading Volume
TYIND	Type of Industry

CHAPTER ONE

INTRODUCTION

1.0. Introduction

The relationship between the market values of equity and the information disclosed in financial statements (hereafter, FS) has been examined more than 40 years back starting with Ball and Brown (1968). The ability of FS to summarize information that reflects the changes in stock values can be considered as relevant information. Value relevance, as relationship between accounting information and market values (Barth et al., 2001), is defined as the power of specific accounting information to explain the variance in share price where greater explanatory power indicates greater value relevance (Anandarajan and Hasan, 2010). Many studies provide definitions closely related to the above meaning (Beaver, 1968; Ohlson, 1995; Barth, 2000). The common denominator in these definitions is that accounting information is considered as value relevant if it has a significant relationship with market values (Barth et al., 2000). The term value relevance has been used in literature to extract the incremental information or the explanatory power of FS in the equity market by examining the relationship between accounting information and share prices.

To indicate the relevant information, accounting information and share price relationship has been tested in prior research. It was found in the empirical research that earnings and book value can be used to predict firm value. In particular, the relationships between earnings, book value and a combination of both with share price have been examined and found to be significant (Ball and Brown, 1968; Ball, 1972; Kaplan and Roll, 1972; Collins and Kothari, 1989; Burgstahler and Dichev, 1997; Anandarajan et al., 2006; Anandarajan and Hasan, 2010).

Many studies have investigated the value relevance of earnings, book value, and cash flows individually; earnings (Ball and Brown, 1968; Beaver et al., 1980; Kothari and Zimmerman, 1995; Ely and Waymire, 1999; Lev and Zarowin, 1999; Bao and Bao, 2001; Powell et al., 2001; Huson et al., 2001; Bao, 2004; Bao and Bao, 2004; Pan, 2007; Bartram, 2007; Chen and Zhang, 2007; Habib and Weil, 2008; Gee-Jung, 2009; Anandarjan and Hasan, 2010), book value (Burgstahler and Dichev, 1997; Bao and Bao, 2001; Bao, 2004; Habib and Weil, 2008; Gee-Jung, 2009; Suwardi, 2009), cash flows (Wilson, 1987; Bowen et al., 1987; Bernard and Stober, 1989; Livnat and Zarowin, 1990; Lev and Zarowin, 1999; Bartram, 2007; Chen and Zhang, 2007; Gee-Jung, 2009), or in a combination of earnings and book value (Amir and Lev, 1996; Collins et al., 1997; Francis and Schipper, 1999; Ely and Waymire, 1999; Lev and Zarowin, 1999; Bao and Bao, 2001; Anandarajan et al., 2006; Habib and Weil, 2008; Gee-Jung, 2009; Kanagaretnam et al., 2009), earnings and cash flows (Gee-Jung, 2009), and book value, and cash flows (Gee-Jung, 2009).

These studies concluded that these accounting variables are value relevant or decline in value relevance over time. Since there are limited studies (Khanagha et al., 2011) that examine the value relevance of earnings, book value, and cash flows simultaneously, this study extends the literature by providing evidence about the value relevance of these accounting variables.

In Jordan, the value relevance of earnings and cash flows has been investigated in the Amman Stock Exchange (hereafter, ASE). The results supported earnings (Hadi, 2006; Anandarajan and Hasan, 2010) but not cash flows (Hadi, 2006). This study examines the value relevance of earnings, book value of equity, and cash flows from operation simultaneously for Jordanian companies listed in ASE.

There is a renaissance of interest in institutions as a factor that could shape economic performance. The notion of institutions itself is not yet a coherent concept, at least not across the various users of the term (Nelson and Sampat, 2001). Institutions are the humanly devised constraints that structure political, economic and social interaction. They consist of both informal constraints (sanctions, taboos, customs, traditions, and codes of conduct), and formal rules (constitutions, laws, property rights) (North, 1991: 97).[1] Institution's functions could be summarized by providing socioeconomic developments, having more constraints and opportunities, affecting all activities and defining growth possibilities (Decuir-Viruez, 2003). Economy is represented by the effect of the individual actions molded by the inherited culture and the effect of the social institutions (Amin, 1999) as formal and informal institutional factors.

[1] Decuir-Viruez (2003) sees the economy consisting of collective effects of formal and informal institutions. The formal institutions consist of rules, laws, constitutions, and property rights while the informal institutions consist of individual habits, groups' routines, customs, traditions, social norms and values.

Many accounting valuation studies categorized the institutional factors into country- and firm-specific factors (or into formal and informal institutions factors). While factors that are specific for a particular country will depend on the rules issued by the country's regulators, those that are specific for a firm will depend on the social norms and values. Many studies have examined the impact of institutional factors on financial reporting (Ball et al. 2000; Holthausen, 2003; Piotroski and Roulstone, 2004; Godfrey et al., 2006; Liu and Liu, 2007). Other studies have related the institutional factors with the nature of the firm or business (Williamson, 1985; Piotroski and Roulstone, 2004; Abayadeera, 2010b). These authors focused on firm's boundaries, organization, governance, and ownership pattern.

The following institutional factors are used in the current study as they are unique to Jordan Securities Commission and Amman Stock Exchange:

1. Foreign ownership - foreign investments in a local company according to Jordanian laws.[2]
2. Trading volume - trading in ASE is bounded by directives and time set by JSC instructions.
3. Financial disclosure time - announcement time required by JSC for a company to submit its preliminary, semiannual and annual financial reports.

[2] According to Investment Promotion Laws (24 in 1995 and 54 in 2000), foreign investments must not be more than 50% of projects in: construction and contracting; wholesale and retail; sea, air and train transport; wastewater treatment; food services; travel agencies; import and export services; advertising; and a number of business-related and commercial services (including finance). No foreign participation is allowed in: security services; sports clubs; stone quarrying; customs clearance services; and land transport other than trains. In any case foreign investments must not be less than Jordanian Dinars 50.000, with exception of investments in public shareholding companies.

4. Financial disclosure level - financial reports of a company complying with the disclosure requirements in accordance with IASs requirements and the JSC instructions.
5. Shareholders number - depends on many aspects related to a specific company, sector, market etc.
6. Listing status - ASE companies have to comply with specific legal requirements in order to be listed in main or second board.
7. Company age - age is considered an important factor that might improve financial disclosure.
8. Type of industry - ASE companies are classified according to their type of economic activities. [3]

In the Jordanian context, the current study considers foreign ownership, trading volume, financial disclosure time and disclosure level, listing status and type of industry as institutional factors at a country level whereas shareholders number and company age have been chosen as institutional factors at firm level.

Many institutional factors can affect the value relevance of accounting information (Lev, 1989; Ali and Hwang, 2000; Bao, 2004; Anandarajan et al., 2006; Anandarajan and Hasan, 2010). This study attempts to investigate to what extent these factors can influence the value relevance of accounting information (earnings, book value of equity, and cash flows from operation) for Jordanian companies listed in ASE. This study

[3] ASE has changed its classification from 4 sectors (banking, insurance, services, and industrial) into3 main sectors including financial (banking and insurance), services and industrial sectors.

focuses on four groups of institutional factors that are related to economic factors (represented by foreign ownership and trading volume), corporate governance (represented by financial disclosure time and financial disclosure level), company's characteristics (represented by shareholders number, listing status and age) and finally the type of industry after controlling company's size and leverage.

Previous studies concluded a significant effect of the economic factors on firm value such as foreign ownership (Errunza and Senbet, 1981; Doukas and Travlos, 1988; Morck and Yeung, 1991; Doukas, 1995; Doukas and Lang, 2003) and trading volume (Beaver, 1968; Grundy and McNichols, 1989; Holthausen and Verrecchia, 1988, 1990; Kim and Verrecchia, 1991a, 1991b; Im et al., 2001; Roll et al., 2009). Bae and Jeong (2007) and Anandarajan and Hasan (2010) concluded that the influence of foreign ownership on value relevance of earnings is positive in Korean and Jordanian companies respectively.

Dontoh et al. (2004) and Liu and Liu (2007) [4] examined the impact of non-information-based trading volume and the percentage of total tradable shares respectively on the value relevance of earnings and book value. They found that there is no significant impact for trading volume on the value relevance of earnings and book value.

According to Hassan (2004), few studies investigated the relationship between firm value and disclosure requirements (Gelb and Zarowin, 2002; Lang et al., 2003). Greenstone et al. (2006) examined the influence of disclosure rules on firm value and found it to be

[4] Wherever these studies are stated in the current study, trading volume term refers to the above measurements as adopted in these studies.

positive. The influence of financial disclosure level on the value relevance of earnings and earnings and book value (in combination) has been examined and was found to be significantly positive (Hassan, 2004; Anandarajan and Hasan, 2010).

Prior research examined how the financial disclosure can be affected by a company's characteristics such as shareholders number, listing status (Naser et al., 2002; Al Arussi et al., 2009), and company's age (Raffournier, 1995; Alsaeed, 2005; Cazavan and Jeanjean, 2007; Al Arussi et al., 2009). These characteristics are found to have a significant influence on financial disclosure. While a company's shareholders number positively affected its market value (Amihud et al., 1999; Hauser and Lauterbach, 2003), the influence of shareholders number, listing status and a company's age on the value relevance of earnings, book value, and cash flows has not been well researched especially in Jordan.

While many studies examined the value relevance of earnings, book value, or cash flows in services and industrial companies and provided mixed results (Bao, 2004; Anandarajan et al., 2006; Hadi, 2006; Vishnani and Shah, 2008; Gee-Jung, 2009; Suwardi, 2009; Anadarajan and Hasan, 2010), the impact of the type of industry on the value relevance of earnings and book value has been investigated in very few studies (Abayadeera, 2010a, 2010b). Therefore, the current study tries to extend these studies.

Since examining accounting information (earnings, book value, and cash flows) and share price relationship forms the basis in indicating the value relevance of these variables, the influence of four groups of institutional factors on the value relevance of these accounting variables for Jordanian companies is examined in the present study using share price in three proxies which are the average annual share price, annual closing share price and share price after a three-month period following the financial year-end (hereafter ATM-share price).

Earnings, book value, and cash flows value relevance is measured by the market's reaction to these variables. This reaction is reflected by the coefficients on these variables in a regression model using share price proxies as dependent variables and these accounting variables as independent variables. The moderating effect of four groups of selected institutional factors is reflected by the coefficients on the interaction variables in the valuation model.

1.1. Background of the study

While the value relevance of earnings, book value, and cash flows is widely researched in developed countries such as Europe and Northern America, a developing country like Jordan (and the Middle Eastern region) has been neglected (Alakra et al., 2009). Also, despite the growing importance of Jordan with respect to commerce, foreign ownership and importantly portfolio investment, it has been ignored in the extant literature (Anandarajan and Hasan, 2010). Only few studies have examined the value relevance of these accounting variables in Jordan (Hadi, 2006; Anandarajan and Hasan, 2010). The limited valuation studies do not assist Jordanian companies to attain international status, attract foreign investment, and compete in global markets.

As mentioned before, the value relevance of earnings, book value, and cash flows individually and in a combination (of any two) have been widely investigated in prior research. Limited studies (Khanagha et al., 2011) have examined the value relevance of earnings per share, book value of equity per share, and cash flows per share simultaneously without any clear definition for cash flows measurement.[5]

The economic environment has a strong impact on accounting since the latter is a service function that operates within an economic framework (Enthoven, 1985). Although Jordan is making progress in opening up the economy and regulatory norms, it is still considered to have a relatively closed economy (Anandarajan and Hassan, 2010). Therefore, in a developing country, there is a need to examine the influence of the economic factors on the financial accounting and reporting (Dahawy, 2009). The previous studies focused on the impact of the economic factors on the financial disclosure or firm value. Boubakri et al. (2005) found that extending foreign ownership changes the companies' economic efficiency where the greater the extent of foreign ownership leads to greater economic efficiency.

[5] Khanagha et al. (2011) did not limit whether they used cash flows from operation, financing, investment or total cash flows activities.

Jordan began applying International Accounting Standards (IASs) in 1990 (Assa'aideh, 1997) and adopted International Financial Reporting Standards (IFRSs), both issued by International Accounting Standard Board (IASB) (JSC, 2007). Particularly, adopting IAS/IFRS encourages foreign and domestic investors to invest in ASE (Alakra et al., 2009). Foreign ownership improves the firm activities and, as a result, increases corporate governance which in turn improves the quality of accounting information disclosure (Bae and Jeong, 2007). Jordan is characterized by (1) accounting standards that are issued by government decree; (2) monitoring bodies that have no effective control; (3) local financial and accounting policies that are not totally consistent with IFRS or US generally accepted accounting principles (GAAP); and (4) generally looser forms of regulation (Anandarajan and Hasan, 2010). Since the above factors may affect the financial disclosure quality, this study tries to examine the impact of these factors (financial disclosure time and financial disclosure level) on the value relevance of earnings, book value, and cash flows that has not been well researched before especially in Jordan.

Governance is not one-size fits all because corporate governance practices benefits vary depending on firm characteristics (Balasubramanian et al., 2010). For the purpose of this study, the impact of the company’s characteristics are traced by the influence of the shareholders number, listing status and company’s age on the value relevance of accounting information in Jordan. Since companies operate in a different type of industry, they may have different disclosure levels for the same item (Naser et al., 2002). Therefore, type of industry can record different levels for firm value.

Finally, the literature on valuation requires extension to ensure the improvements which occurred in valuation models (Lo and Lys, 2000). Different proxies (measurements) for share price in the literature have been employed. Therefore this study examines the value relevance of accounting information relative to three share price proxies to indicate which share price measure is more dependable in presenting this value.

1.2. Problem statement

As mentioned before, few studies have examined the value relevance of accounting information in a developing country such as Jordan. Even when developing countries have been investigated by few previous studies, these countries have been studied in groups making it difficult to discern the reporting practices in specific countries (Saudagaran and Meek, 1997; Chamisa, 2000; Dahawy et al., 2002). Some authors suggested that the Jordanian governance framework should be examined in more detail by future research (e.g. Alakra et al., 2009). Therefore, Jordanian companies have been selected by this study to extend the valuation research in this country. Since prior studies indicated that the accounting information (earnings, book value, and cash flows) has value relevance in developed countries, it is expected that these variables will be value relevant in Jordan as it is considered as a developing country in the Middle Eastern region. The value relevance of earnings, book value, and cash flows with the influence of the four groups of institutional factors after controlling company's size and leverage are discussed.

Since limited studies (Khanagha et al., 2011) have examined the value relevance of earnings per share, book value of equity per share, and cash flows per share simultaneously, the current study adds empirical evidence on this examination (including cash flows from operation per share) to the accounting literature to indicate the best predictor for firm value. It is expected that earnings will be the best predictor for market value in Jordan because it measures a company's performance and represents its profitability. In addition, many studies concluded that earnings have a significant positive relationship with share price which are reviewed in the next chapter. Since the value relevance of accounting information is influenced by many institutional factors as referred before, the influence of the four groups of institutional factors on the value relevance of the accounting information in Jordan is examined in this study.

Since Dontoh et al. (2004) and Liu and Liu (2007) examined the influence of trading volume on the value relevance of earnings and book value, and Bae and Jeong (2007) and Anandarajan and Hasan (2010) examined the influence of foreign ownership on the value relevance of earnings, the current study extends these studies by examining the impact of the economic factors as foreign ownership (in a local company) and trading volume (total number of shares traded for a company) on the value relevance of earnings, book value, and cash flows simultaneously that has not been well researched before especially in Jordan. Because companies' foreign ownership has a positive significant influence on value relevance of earnings (Bae and Jeong, 2007; Anandarajan and Hasan, 2010), it is expected for the current study to find a significant positive impact of foreign ownership on the value relevance of earnings, book value, and cash flows. A negative or insignificant impact of trading volume on the value relevance of earnings and book value has been found (Dontoh et al., 2004; Liu and Liu, 2007). Trading volume is positively related to price change (Clark, 1973; Epps and Epps, 1976; Tauchen and Pitts, 1983) or noisily related to price change (Pfleiderer, 1984). The researcher has no clear idea about the impact of trading volume on the value relevance of earnings, book value, and cash flows in Jordanian companies.

As mentioned before, since limited studies have examined the influence of the financial disclosure level on the value relevance of earnings and book value (Hassan, 2004; Anandarajan and Hasan, 2010), this study tries to extend these studies by examining the impact of financial disclosure time and financial disclosure level on the value relevance of earnings, book value, and cash flows for Jordanian companies that adopted IAS/IFRS disclosure requirements (issued by JSC).

One of the most important goals of the FS preparation is to provide sufficient and timely information for decision makers who depend on this information when indicating firm value. Since FS will lose their usefulness if they lack the required information (Givoly and Palmon, 1982; Kross and Schroeder, 1984; IAS 1, 2007; Dahawy, 2009), it is expected for the current study to find a positive impact for the disclosure time and disclosure level on the value relevance of earnings, book value, and cash flows.

Since previous studies focused on the impact of company's characteristics on financial disclosure and few studies examined the influence of company's characteristics on firm value (Amihud et al., 1999; Hauser and Lauterbach, 2003), this study extends previous studies by examining the impact of company's characteristics on the value relevance of earnings, book value, and cash flows that has not been well examined before especially in Jordan. It is expected for this study to find positive impacts for shareholders number and listing status on the value relevance of accounting information in Jordan because increasing shareholders number significantly influences the firm value (Amihud et al., 1999), and positively and significantly listing status influences the financial disclosure (Al Arussi et al, 2009). The researcher has no idea about the impact of company's age on the value relevance of accounting information since different conclusions have been found in previous studies. This is because, while Balasubramanian et al. (2010) refer that younger firms are likely to be faster growing then they are motivated to improve their financial disclosure, Camfferman and Cooke (2002) refer that old companies might improve their annual reports overtime and they concluded a significant impact of company's age on financial disclosure. This improvement may positively influence the value relevance.

While previous studies in Jordan examined the value relevance of accounting information such as cash flow in industrial sector (Hadi, 2006) and earnings in all ASE sectors (Anandarajan and Hasan, 2010), a study on the influence of type of industry on value relevance of earnings, book value, and cash flows has not been found particularly in Jordan. Therefore, the current study tries to examine the influence of ASE services and industrial sectors on the value relevance of earnings, book value, and cash flows. It is expected for this study to find that the value relevance of these variables will be significantly influenced by the type of industry. Since prior valuation studies have concluded mixed findings for the value relevance of the accounting information according to type of industry without referring to its impact on the value relevance, the researcher has no clear vision whether the type of industry will positively or negatively influence the value relevance of earnings, book value, and cash flows.

The current study examines the relevance of earnings, book value, and cash flows as a relationship with three share price proxies to find whether there is a gap between the results from using different proxies for share price (average annual share price, annual closing share price and ATM-share price) and whether this will significantly influence the value relevance of these accounting information in Jordan. Consistent with the results of many studies in different financial markets (Beaver et al., 1980; Powell et al., 2001; Bao and Bao, 2001; Bao, 2004; Chen and Zhang, 2007), it is expected for this study to find that annual closing share price could be dependable in indicating the value relevance of accounting information.

1.3. Research questions

Based on previous sections, this study tries to answer the following questions:

1. Which accounting variable among earnings, book value, and cash flows is the best predictor for firm value?
2. Can foreign ownership and trading volume influence the value relevance of earnings, book value, and cash flows?

3. Do corporate governance variables (financial disclosure time and financial disclosure level) influence the value relevance of earnings, book value, and cash flows?
4. What are the specific characteristics of a company that influence the value relevance of earnings, book value, and cash flows?
5. Does type of industry influence the value relevance of earnings, book value, and cash flows?
6. Do different proxies for share price influence the value relevance of earnings, book value, and cash flows?

1.4. Research objectives

The overall objective of the study is to present evidence on the value relevance of the accounting information in Jordan as a developing country and whether the value relevance of accounting information is influenced by country- and firm-specific institutional factors. The specific objectives of the study are:

1. To examine which variable among earnings, book value, and cash flows is the best predictor for the firm value.
2. To examine whether foreign ownership and trading volume can influence the value relevance of earnings, book value, and cash flows.
3. To investigate whether financial disclosure time and financial disclosure level can influence the value relevance of earnings, book value, and cash flows.
4. To investigate whether company's specific characteristics can influence the value relevance of earnings, book value, and cash flows.

5. To examine whether type of industry can influence the value relevance of earnings, book value, and cash flows.
6. To examine whether different proxies of share price can influence the value relevance of earnings, book value, and cash flows.

1.5. Significance of the study

The significance of this study is firstly, although Jordan's capital market secured some very impressive growth rates within the last decades, [6] Jordan has been neglected in the extant literature (Alakra et al., 2009; Anandarajan and Hasan, 2010). The current study contributes to the literature by extending the valuation studies to include Jordan as a developing country. The current study is the first in Jordan that examine the simultaneous effect of earnings per share, book value of equity per share, and cash flows from operation per share with other institutional factors on share price.

Secondly, while the influence of foreign ownership on the value relevance of earnings (Bae and Jeong, 2007; Anandarajan and Hasan, 2010) and trading volume on the value relevance of earnings and book value (Dontoh et al., 2004; Liu and Liu, 2007) have been examined, the influence of trading volume and foreign ownership on the value relevance of earnings, book value, and cash flows simultaneously has not been examined in Jordan as far as the researcher is concerned. Therefore, this study adds to the accounting

[6] For the impressive growth in Jordanian capital market, please refer to sections 1.7, 2.2, 2.4.1, 2.4.2, 2.5.1, and 2.5.2.

literature whether the value relevance of these accounting variables will be influenced by foreign ownership and trading volume in Jordan.

Thirdly, since Hassan (2004) pointed out that limited studies have examined the association between information disclosure requirements and share price, and Anandarajan and Hasan (2010) examined the influence of disclosure level on the value relevance of earnings in Jordan, the current study extends these studies by examining the influence of the financial disclosure time and financial disclosure level (as the corporate governance variables) on the value relevance of earnings, book value, and cash flows in Jordan. So, this study is the first in Jordan in testing the impact of the financial disclosure time and financial disclosure level on the value relevance of these accounting variables.

Fourthly, few studies have examined the influence of company's shareholders number, listing status and age on firm value, as mentioned before. Therefore this study extends these studies by examining the impact of these company's characteristics on the value relevance of earnings, book value, and cash flows that has not been well examined before especially in Jordan.

Fifthly, in Jordan, providing more empirical evidence on valuation research is important to find whether the value relevance of the accounting information will vary according to economic sectors or in different financial markets and economic sectors. As mentioned before, few studies have examined the value relevance of accounting information according to ASE sectors (Hadi, 2006; Anandarajan and Hasan, 2010), while the impact of the type of industry has not been examined in these studies. Therefore this study tries to fill this gap and add new evidence to the literature by examining the impact of type of industry on the value relevance of earnings, book value, and cash flows to assist investors by providing them the relevant information related to the type of industry that they can invest in.

Finally, this study contributes to literature by extending the method, models, and analysis of previous studies by including cash flows together with earnings and book value and by comparing the value relevance of earnings, book value, and cash flows using three different share price proxies. The results are important to investors and other market participants to indicate which proxy for share price and which variable could be dependable in representing firm value. The evidence that is provided by the current study can serve as a guideline to investors, managers and financial analysts in a better evaluating firm value. Also, this evidence can serve educational institutions in their courses and regulatory bodies in monitoring the financial reporting process in Jordan.

1.6. Scope of the study

Jordanian companies are selected as the research sample. Jordanian firms are particularly well suited for the study's empirical investigation for several reasons. First, this study is an extension for the previous valuation studies in this country. Second, Jordan has had stability in policies and practices in finance and accounting for a long time (Jordan Central Bank (JCB), 2009) which might support the reliability of the results of the current study. Third, since limited studies have examined the accounting disclosure in ASE (Alakra et al., 2009) there is a need to focus more on scientific research in this area. In addition, Jordanian FS users' needs for accounting information should be taken into consideration for future research as accounting practices are affected by economic and technology changes which lead FS to lose their value relevance (Collins et al., 1997; Brown et al., 1999; Francis and Schipper, 1999; Lev and Zarowin, 1999; Oyerinde, 2009). Since ASE has many sectors and the number of companies under each sector is not similar, the disproportionate stratified random sampling is argued to be the appropriate sampling technique for this study.

Although ASE was established in March 1999 and JSC in 2002, no complete data about the study's sample has been found before the year 2004. So, the year 2004 is considered to be the first financial year that has complete information about companies' FS, share prices and other information about the study's institutional factors. Therefore the selected period of research sample is 6 years (2004-2009).

Also, Jordan has achieved many important developments within 2004-2009 including a high economic growth, applying Accountancy Profession Law No. 73, establishing a high council for accounting and auditing, and setting up an improved Jordanian Association of Certified Public Accountants (JACPA). Although this has been considered as a significant step toward organizing the profession, its contents need to be updated along with new global developments (Rahman and Waly, 2004). Within the period 2004 to 2009, the number of listed companies have increased from 192 to 272, market capitalization has increased from 13033.8 to 22526.9 in million Jordanian dinars, value traded from 3793.2 to 20318.1, average daily trading from 15.4 to 82.9, and number of transactions from 1178.1 to 3780.9 (thousand). [7]

Jordan was ranked 100th with economic freedom score of 65.4, making its economy the 51st in 2009 index. Its score has increased by 1.3 points since 2008, reflecting an increase in freedom in business, trade and government size. Also, Jordan was ranked sixth out of the 17 countries in the Middle East/North Africa region. Investors should continue to execute due diligence in exploring investment opportunities and concluding purchases as they would in other countries (Dashti, 2011). In 2007, Jordan has been ranked the 5th among the Middle East and North Africa region for doing business. This improvement is due to the reform policies adopted by Jordanian government. Nearly 71% of ASE companies showed consistent growth and profits (Doing Business, 2007).

1.7. Organization of the thesis

The thesis continues as follows: chapter two reviews the studies related to the topic to build the research framework. Chapter three covers the hypotheses, research design, and data collection. Chapter four presents the findings of the study while these findings are discussed in chapter five. The last chapter presents the conclusions, contributions and suggestions for future research.

[7] Resource of this paragraph is annual reports of JSC 2004-2009.

CHAPTER TWO
LITERATURE REVIEW

2.0. Introduction

This chapter reviews the value relevance of accounting information in literature. In addition to the introduction, this chapter includes eleven main sections. Accounting practices and capital market in Jordan are revealed in the first section. The value relevance of the accounting information as the association of earnings, book value of equity and cash flows from operation with share price is presented in the second section. The third section discusses the effects of the economic factors (foreign ownership and trading volume) on the value relevance of the accounting information. The fourth section reveals the influence of the corporate governance (financial disclosure time and financial disclosure level) on the value relevance of the accounting information.

The fifth section discusses whether the company's characteristics (shareholders number, listing status and age) can affect the value relevance of accounting information. The sixth section offers the effects of industry type on the value relevance of accounting information. Also, share price in three different proxies (average annual share price, annual closing share price and ATM-share price) as study's dependent variables are presented in the seventh section. Firm size and leverage as control variables for this study are discussed in the eighth section. Theories that are relevant to be adopted in the development of this research conceptual framework are discussed in the ninth section. The study's conceptual framework is presented in the tenth section. Finally, the summary for this chapter is revealed in the last section of this chapter.

2.1. Accounting practices and capital market in Jordan

The importance of Jordan stems from being the meeting point of Asia, Africa, and Europe. Jordan, unlike other Middle Eastern countries, does not rely on petroleum as its main source of Gross Domestic Product (GDP). After 1948, Jordan’s population growth rates have increased over 4% largely due to the influx of Palestinian refugees (DOS, 2007). Jordanian government heavily relies on foreign assistance because of the insufficient supplies of oil, water, and other natural resources. This led Jordan’s economy to be ranked among the smallest in the Middle East (Marashdeh, 1996; Alakra et al., 2009). [8]

The high population growth, limited natural resources, and high debt levels impeded the development efforts to create a more technically sophisticated economy. Therefore, Jordan has embarked economic adjustment programs. Two important programs are opening the trade regime and privatization in 1999 (ASE, 2007). These economic changes require a change in Jordan's accounting systems to be comparative in the world markets (Alakra et al., 2009).

The trade regime and privatization programs have produced significant accounting regulatory reforms which in turn influence the recent governance and disclosure regulations. Privatization led the government to sell shares of 50 major Jordanian corporations to domestic and foreign investors which increased the market capitalization

[8] The natural resources scarcity made Jordan's economy to rely on external aid from oil-rich states, remittances from Jordanians working in those states, and exports (Marashdeh, 1996).

of ASE to over $7 billion in 2002 and to $11.3 billion in 2004. To ensure privatization success, governance systems and corporate disclosure rules are revamped. Privatization increases the shareholders number and ownership (domestic and foreign) and in turn produces more transparent disclosure practices (Boutchkova and Megginson, 2000; Chau and Gray, 2002). Thus, the significant changes in ownership structure have increased the need for public disclosure, and a Jordanian accounting environment needs to be developed in terms of strengthening corporate governance of companies and accounting practices (Al-Jajawy and Noor, 2003; Alakra et al., 2009).

The adoption of the full version of IASB standards was mandated by the 1997 Company Law and 2002 Securities Law which focused on the adoption and enforcement of IASs/IFRSs (ASE, 2007). The adoption of these standards requires certain mandatory disclosures and more information to be presented than the national accounting standards due to their detailed measurement rules (Aubert and Grudnitski, 2008).

Jordan has converged towards IAS, as exerted by the International Accounting Standards Board, International Federation of Accountants, International Organization of Securities Commissions, World Bank, and the International Monetary Fund. Further, Jordan became a member in the Mediterranean partnership with the European Union in 1999, the World Trade Organization in 2000, the Organization of Free Trade with the United States in 2001(Al-Jajawy and Noor, 2003), and the Arabian Gulf Cooperation Council in 2011. This compelled Jordanian listed companies to adopt IAS/IFRS.

Jordan was witnessed different accounting methods as different states occupied the region. Establishing the Islamic state has developed the accounting systems to suit the needs of Muslims in accordance with Islamic Share'ah (Zaid, 2004). Different laws have played an important role in developing Jordanian accounting practices, such as the Company Law No. 12 in 1964 (amended and replaced by Law No. 1 of 1989), Trade Law No. 12 enacted in 1966, Encouragement of Investment Law in 1972, Registration of Foreign Companies Law in 1975, Control of Foreign Business Activities Defence Regulations in 1978, the establishment of Amman Financial Market (AFM) in 1978, and Securities Law No. 76 in 2002. [9]

Three new institutions have been formed to replace the old AFM. The new institutions are Jordan Securities Commission (JSC), Amman Stock Exchange (ASE), and the Securities Depository Commission (SDC). ASE was established on March 11, 1999, on which Jordanian companies have been categorized into services, industrial, and financial sectors. ASE has experienced some growth in a number of aspects that are related to its activities. ASE is in charge of monitoring and regulating market trading in coordination with the JSC, attaining a fair market, providing investor protection, ensuring the provision of timely and accurate information of issuers to the market, and disseminating market information to the public (Alakra et al., 2009).

[9] These developments required Jordanian companies to prepare an annual report with a profit and loss statement, a balance sheet, explanatory notes, an auditor report, keep a general journal, inventory records, a correspondence register (Alakra et al., 2009), and by using IAS/IFRS, all Jordanian public shareholding companies have to disclose their performance and any material developments in their affairs that might affect stock prices.

The ASE growth aspects have encouraged activities investments in Jordan as it has (1) a stable political and economical environment, (2) a free market oriented economy, (3) a package of incentives and exemptions to encourage attractive investment climate, [10] (4) an access to major international markets, (5) free zones and industrial estates, (6) qualified and competitive human resources, and (7) a world class infrastructure and communications (ASE, 2009).

2.2. Value relevance of earnings, book value, and cash flows

While many studies (Barth et al., 2000; Vishnani and Shah, 2008) pointed out that the term "value relevance" is used at the first time in literature by Amir et al. (1993), this study found that Lev (1989) was the first in using this term as value-relevant variables, value-relevant information or valuation-relevant.

Accounting information value relevance is an unclear term because different user groups and investors for valuation purposes may have different views about what the information value relevance is (Francis and Schipper, 1999; Thinggaard and Damkier, 2008). The relevant information is the figure that FS users need to evaluate firm value and make a decision. Bao (2004) considered accounting information that the investors need does not

[10] Exemptions from; income and social services taxes by 25%, 50%, or 75% for 10 year period; imported fixed assets are 100% exempted from customs duties and taxes; imported spare parts for fixed assets can be exempted from fees and taxes; exemption from customs duties and income tax for expansion, modernization, or project development; hotels and hospitals may purchase furniture and supplies without customs duties once every seven years for renewal purposes; total customs exemptions on imported fixed assets; revenues on exports are exempted from income taxes; export industries are not subject to customs duties on imported raw material; and free repatriation of capital, profits and salaries (ASE, 2009).

require to be new in order to be relevant, but it can be relevant by summarizing accounting information that might be taken from other sources.

In the extant literature, testing the relationship between the accounting information and the security market values has been defined as value relevance (Barth et al., 2000). It hints to the ability of the FS information content to explain the stock market measures (Vishnani and Shah, 2008). If the information has explanatory power on the equity market value it will be termed as value relevant (Thi and Schultze, 2009). The main idea of testing this relationship is (1) to give a strong signal of the intrinsic value or change in value (Whisenant, 1997) and (2) to provide investors with relevant information (that is considered to be missed) in firms' FS as noted by Trejo-Pech (2007).

Hence, a study on testing FS information and share price correlation as value relevance is important because: (1) it is one of the possible interpretations of value relevance concept (Francis and Schipper, 1999), (2) its importance is not for the investors only, but it also provides insight to other accounting information user groups (Barth et al., 2001) and (3) it is not the same as the accounting information quality (Hellstron, 2005). The value relevance of earnings, book value, and cash flows is discussed in the next subsections.

2.2.1. Earnings

The primary focus of financial reporting is information about an enterprise performance provided by measures of earnings and its components (FAS 1, 1978). In financial reporting, earnings as a term are used to describe the income of a company, while the annual earnings are defined as net income (Collins et al., 1997). At a conceptual level, earnings should be the more representative value driver because earnings can reflect the changes in value regardless of when the cash flows occur (Vishnani and Shah, 2008). In addition, earnings are value relevant as they reflected some information in security prices (Ball and Brown, 1968).

Earlier studies on value relevance (such as Ball and Brown, 1968; Collins et al., 1997) provided simplistic definition of annual earnings. No efforts have been noticed in literature to expand the conceptual understanding of the term by taking into consideration the current market environment. Earnings per share (hereafter EPS) are the amounts of earnings attributable to each share of common stock. Over the other measures, as investors believe, EPS have additional information content at earnings announcement time. Due to the usefulness of EPS, investors use it at quarterly announcements, and only EPS provides incremental information that investors rely solely on at annual announcements (Vincent, 1999).

Although EPS are important, some drawbacks that arise from using EPS include (Singhvi, 2001):

1. EPS measure does not take into account the firm's balance sheet strength, since it ignores the ability of firm's assets and capital to generate revenue. [11]
2. Since EPS is determined by dividing net income by the number of shares outstanding, many firms try to alleviate the poor performance effect in a particular fiscal year by buying back shares to reduce shares outstanding number. This way, in spite of poor earnings, EPS will increase or maintain itself which makes it a deficient measure of profitability. Management must explain and describe an alternative measure that may supply conventional financial data, if they believe that the existing earnings model is deficient in presenting operations results as well as an alternative (Vincent, 1999).

Khanagha et al. (2011) have examined the value-relevance of earnings, book value, and cash flows in Iran for the period from 1996 to 2008. The results show that all coefficients on these accounting variables are statistically significant and earnings have a higher explanatory power than book value and cash flows.

Finally, prior research concluded mixed results for the value relevance of earnings. While earnings are largely irrelevant in the wireless communication industry valuation (Amir and Lev, 1996), it is decline for industrial and services firms (Collins et al., 1997; Francis and Schipper, 1999). In contrast, earnings are strongly value relevant (Anandarajan et al.,

[11] For example, two firms with the same income level and number of shares outstanding will give similar EPS. But this does not mean that firms have equal profit because one firm takes twice the amount of assets or capital to get the same level of EPS as the other firm (Singhvi, 2001).

2006; Oyerinde, 2009; Anandarajan and Hasan, 2010). Additional findings for earnings which are conducted from prior studies that used valuation model and regression statistics have been categorized based on authors, date of publishing, country and economic sector and type of variables (dependent or independent) as illustrated in Table 2.1.

Table 2.1

Value Relevance of Earnings, Book Value, and Cash Flow in Prior Studies

	Authors	Yr	Country and Sector	Variables DV	Variables IV	Findings
1	Gee-Jung	2009	KSM firms except banking	SP	Es, BV and CFO	1- SP, BV and CF are positively correlated 2- SP and Es are not significantly correlated*****
2	Oyerinde	2009	NSM top 30firms with highest Es	SP	Es	A significant positive relationship between SP and Es
3	Suwardi	2009	JSX firms all sectors	SP	BV	Strong relationship between SP and BV
4	Dastgir and Velashani	2008	TSE firms (Iran) all sectors	SP	Es, BV, CI	Relationship between SP with CI and BV (R^2 = 0.424) are not superior to that with Es and BV (R^2 = 0.429) for firm performance evaluation as total sample
5	Vishnani and Shah	2008	BSE top 24 Indian companies	P/B	PAT, CFI, CFO, NW	1- Value relevance of balance sheet, balance sheet with cash flows statement, income statement, and income statement with cash flows statement was negligible 2- Value relevance of financial statements as a set was declined
6	Vardavaki and Mylonakis	2007	U.K. retail firms food and drug sectors	SP	Es, BV	1- BV has very high explanatory power (R^2= 0.8685) 2- Es has lower explanatory power value (R^2 = 0.759) 3- Combination of BV and Es gives a high satisfaction in valuation model (R^2 = 0.975)
7	Anandarajan et al.	2006	ISE firms ******	SP	ES, BV	Both Es and inflation-adjusted BV have strong association with SP
8	Bao	2004	Asian stock markets (7 countries)	SP	Es, BV	1- Correlation between Es, BV and SP is very strong 2- Both Es and BV play a significant role in explaining prices
9	Whelan	2004	ASX firms (all sectors except banking, insurance)	SP	Es, BV	1- Both Es and BV are value-relevant using Australian data 2- The value-relevance of Es is reduced and the value-relevance of BV is increased

Table 2.1 (Cont.)

Value Relevance of Earnings, Book Value, and Cash Flow in Prior Studies

	Authors	Yr	Country and Sector	Variables DV	IV	Findings
10	Alsalman	2003	U.S., Saudi, Kuwait, and IAS sample markets all sectors	SP	Es, BV	SP is highly associated with BV and Es in Kuwait and IAS-sample than that in U.S. and Saudi Arabia
11	Bao and Bao	2001	TSE firms (Taiwan) all sectors	SP	Es, BV	In large size firms, Es are determinant of Sp while BV is not and vice versa in small size firms
12	Ely and Waymire	1999	U.S. firms services sector	SP	Es, BV	A highly significant increase in the combined value relevance of Es and BV (adjusted R^2 = 0.44) while it is 0.37 for Es and 0.24 for BV
13	Francis and Schipper	1999	U.S. firms	SP	Es, BV	Incremental relevance for Es is decreasing (R^2= 0.22) and BV is increasing (R^2= 0.41) over their research's period while for combined Es and BV is increasing (R^2= 62)
14	Collins et al.	1997	U. S. services and industrial sectors	SP	Es, BV	Es and BV are positively correlated with SP and with each other
15	Ohlson	1995	No sectors	SP	Es, BV, D	Developing and analyzing a model of a firm's market value as it relates to contemporary and future Es, BV, and D.
16	Harris et al.	1994	German and U.S. industrial and services sectors	SP	Es	SP is associated with Es for U.S. firms (R^2= 0.34) more than that for German firms (R^2= 0.14)

Notes:

- DV: dependent variable, IV: independent variable, SP: share price, BV: book value, Es: earnings, CI: comprehensive income, P/B: ratio of market price per share to book value per share, PAT: profit after tax, CFI: cash flows from investing activities, CFO: cash flows from operating activities, NW: net worth of a company, D: dividends.

- KSM: Korean Securities Market, NSM: Nigeria Stock Market, JSX: Jakarta Stock Exchange, TSE: Tehran Stock Exchange, BSE: Bombay Stock Exchange, ISE: Istanbul Stock Exchange, ASX: Australian Stock Exchange, TSE: Taiwan Stock Exchange.

***** Gee-Jung study (2009) results are extraordinary because many studies report that Es have a relevant value and additional information more than cash flows. This may be just for 1994-2005 period in KSM, or that Es have no significant effect on SP could be the true pattern.

****** Dealing with firms without limiting or excluding any sector.

Consistently with Anandarajan and Hasan's study (2010), it is expected for this study to find that earnings will be value relevant in ASE. Earnings as one of the current study independent variables are measured as earnings per share (EPS) of a company at end of the financial year (Amir and Liv, 1996; Collins et al., 1997; Vincent, 1999; Francis and Schipper, 1999; Anandarajan et al., 2006; Anandarajan and Hasan, 2010; Khanagha et al., 2011).

2.2.2. Book value of equity

Book value is the historical value. It is the value of asset shown in the balance sheet. While earnings measure how a firm's resources are currently used, book value measures the value of a firm's resources independent of how these resources are currently used.

The information about the net value of firm's resources can be provided by the book values from the balance sheet (Burgstahler and Dichev, 1997). The firm book value wealth is measured by the balance sheet (Landsman, 1986; Barth, 1991; Shevlin, 1996; Burgstahler and Dichev, 1997). The equity market value has been explained by the empirical regressions as a linear function of the book value of assets and liabilities (Bao, 2004).

Many studies focus on the balance sheet measures. A statistically significant relationship between firm book value and equity value has been found by these studies. Book values of equity per share are of interest in measuring firm performance (Penman, 1991; Ohlson, 1995; Barth and Kallapur, 1996; Berger et al., 1996).

Book value per share (BVPS) can be determined by dividing the total common equity of firm by the total number of shares outstanding. This measure has some drawbacks (Singhvi, 2001):

1. To measure the book value, a set of arbitrary accounting rules has been applied to spread the assets acquisition cost over a specified number of years, whereas the stock market price takes into account the firm's value. While one variable is forward looking and another is backward looking, the comparison will be less than perfect.
2. The book value of some firms, such as advertising, internet, and software firms will always be small because of the business they are in. These firms, to conduct their business, do not need tangible assets such as factories, equipments, etc. These firms have no good investment candidates because on a price/BVPS basis, their stocks will always look expensive.

Valuation research focused mainly on earnings while studies in recent years turned their attention towards models including equity book value (Lo and Lys, 2000). Previous studies concluded mixed results for the value relevance of book value of equity. While book value of equity is largely irrelevant in the wireless communication industry valuation (Amir and Lev, 1996), it is value relevant in the industrial and services firms (Collins et al., 1997; Francis and Schipper, 1999), and book value is more value relevant than earnings (Gee-Jung, 2009). Mixed findings have been concluded for the value relevance of book value of equity in prior studies as reported in Table 2.1. Consistent with the latter studies (Collins et al., 1997; Francis and Schipper, 1999), it is expected for this study to find that book value will be value relevant in ASE. Book value as one of the current study's independent variables is measured by book value of equity per share of a company at end of the financial year (Bao and Bao, 2001; Bao, 2004; Anandarajan et al., 2006; Kanagaretnam et al., 2009; Gee-Jung, 2009).

2.2.3. Cash flows from operation

Earnings and cash flows are different because, according to the timing and magnitude of revenues and expenses, accounting principles are not necessarily based on cash inflows and outflows (Trejo-Pech, 2007). Actually, cash flows have not been defined yet by any authoritative body according to Lunzer (1986). Usually, balance sheet and income statement are prepared by the companies, and the concept of reporting cash flows is a recent one (Vishnani and Shah, 2008). According to IAS 7, "Cash Flows Statement" came into effect on 1/1/1994 in order to require the information presentation. This information is regarding the firm's historical changes in cash and cash equivalents. It classifies cash flows according to operating, investing, and financing activities during the period.

While the measures of earnings have been traditionally emphasized by the financial reporting practices, the financial economists have well accepted the link between future cash flows and firm value, and the interest in cash flows measures has been increased (Bowen et al., 1987).

An important role that is played by cash flows is determining a firm's ability to access external funds sources. Positive cash flows enable firms to raise their capital and borrow from the capital market, while negative or insufficient cash flows present a firm's inability to borrow and they will face the default risk (Zeitun et al., 2007). [12]

Zeitun et al. (2007) point out that the ability of a firm to enter the equity market to raise capital has been affected by a firm's future cash flows. As these cash flows are not directly paid out in a form of dividend, they are retained and could be reinvested in profitable projects. While managers are allowed by shareholders to retain cash, the retained cash might be misused by those managers by investing in unprofitable or negative projects. This results to managers-investors interest conflict, and consequently, potential agency problems will exist (Jensen and Meckling, 1976).

Gentry et al. (1985) find that cash flows components offer applicable alternatives to classify failed and non-failed firms. However, Casey and Bartczak (1985) find that the classification result of failed and non-failed firms is not improved by operating cash flows.

By identifying the main sources and uses of cash listed in the statement of cash flows, quality of earnings and financial condition can be assessed. For example, examining the

[3] Default is defined as stop issuing firm's FSs for at least two years, because the law obliged firms to submit their annual FSs or had restructured their capital (Zeitun et al., 2007).

cash flows statement could reveal reliance on proceeds from debt issuance and liquidation of capital assets as primary sources of cash. This type of information is a clear indication of financial distress and would otherwise be hidden (Phillip, 2003).

For the investor's selection, this statement which views only cash receipts and payments during a short period (one year) cannot indicate whether the firm's performance is successful or not (FAS 95, 1987). Moreover, Vélez-Pareja (2005) found that cash flows are not a necessary figure for accounting principles to be based in firm value.

Since earnings have the ability to reflect the firm’s performance more than cash flows (Dechow, 1994), Thinggaard and Damkier (2008) show that when investors make their decisions based on accrual information than cash flows statements, the information foreknowledge in the FS could be highly relevant.

Since in the accounting literature there is strong evidence which show that the accounting system must report earnings, not cash flows (Bowen et al., 1987), then the focus should be on earnings as opposed to cash flows. “Information about enterprise earnings based on accrual accounting generally provides a better indication of an enterprise's present and continuing ability to generate favorable cash flows than information limited to the financial effects of cash receipts and payments“(FAS 1, 1978:5). The accrual information has predictive ability which is superior to that of cash flows (Wilson, 1986; Dechow, 1994; Barth, 2000; Thi and Schultze, 2009). Jordanian firms had been selected by Hadi

(2005) to investigate the relationship of earnings and cash flows with share price. He found a significant relationship with earnings but not cash flows.

By using the regression model, the value relevance of earnings compared with cash flows (operating, investing, and financing cash flows) in different life-cycle stages has been examined by Black (1998), and different results have been concluded. Mixed findings have been concluded for the value relevance of cash flows from operating in prior studies as reported in Table 2.1. Consistent with other studies (Wilson, 1986; Bowen et al., 1987; Dechow, 1994; Barth, 2000; Hadi, 2005; Vélez-Pareja, 2005; Thinggaard and Damkier, 2008; Thi and Schultze, 2009; Khanagha et al., 2011), it is expected for this study to find that cash flows from operating activities will be value relevant but less than earnings and book value. Cash flows as one of the current study's independent variables are measured by cash flows from operating activities per share of a company at end of the financial year (Black, 1998; Misund et al., 2005; Gee-Jung, 2009).

Finally, since the value relevance of earnings, book value, and cash flows individually and in a combination of earnings and book value, earnings and cash flows or book value and cash flows have been widely investigated in prior research, limited studies (Khanagha et al., 2011) examined the value relevance of these variables simultaneously. So, the current study extends the accounting literature particularly in Jordan by examining the value relevance of earnings, book value, and cash flows simultaneously.

The value relevance of accounting information has been affected by many institutional factors. These factors were recognized and operationalized by the recent value relevance studies among the countries (Ali and Hwang, 2000; Hung, 2001; Ball et al., 2003; Anandarajan and Hasan, 2010). Since the current study examines the impact of four groups of institutional factors (economic, governance, company's characteristics and industry type) on the value relevance of earnings, book value, and cash flows after controlling firm size and leverage, the next sections review the association between these factors and the value relevance of the accounting information in previous studies.

2.3. Economic factors and value relevance

As mentioned before, many institutional factors influence the accounting practices among the countries and this influence has been examined by the recent value relevance studies. One profound and important factor that affected the value relevance of accounting information is the economic factor which is traced, for the purpose of this study, by the influence of the foreign ownership and trading volume on the value relevance of earnings, book value, and cash flows. In brief, those factors are discussed in the next subsections.

2.3.1. Foreign ownership

While investments depend on the transferring of management and capital across national boundaries, foreign investors have been considered as proprietors and not merely lenders (Staley, 1935). Companies' economic efficiency will be changed with the extent of foreign ownership (Boubakri et al., 2005). In essence, the greater the company's economic efficiency, the greater the extent of foreign ownership of this company (Anadarjan and Hasan, 2010). Many studies found that higher proportion of foreign ownership has positive association with company's performance (Denizer, 2000; Claessens et al., 2001; Litan et al., 2001; Anandarajan and Hasan, 2010).

The higher presence of foreign ownership leads to increasing the competition environment, which will improve the local firm's efficiency and performance (Anandarajan and Hasan, 2010). This is because foreign investments will introduce advanced information technology (Okuda and Rungsomboon, 2004). This will cause in reducing operating expenses and increasing profits, which will consequently force the local companies to double their efforts to keep competitive (Claessens et al., 2001; Berger and Hannan, 1998; Anandarajan and Hasan, 2010).

Many empirical studies have focused on the determinants of foreign investment in local firms (Sethi et al., 2003). Significant associations of these investments have been found with technological intensity (Lall, 1980), firm size (Li and Guisinger, 1992), capital intensity (Pugel, 1981), product differentiation (Caves, 1971) and both macro-economic and firm strategy factors (Sethi et al., 2003).

Also, foreign ownership involvement has positive influence on local firms in terms of improving efficiency and competitiveness. Foreign ownership involvement has a strong positive effect on the value relevance of the accounting information (Anandarajan and

Hasan, 2010). The influence of foreign ownership on the value relevance of accounting information has been tested by Bae and Jeong (2007) and they found that foreign ownership positively influences the value relevance of earnings in Korean companies.

In Jordan, according to JSC annual reports, the foreign ownership formed about 26, 37, and 41% in 2004 to nearly 32, 53, and 49% in 2009 for the services, industrial sectors and ASE respectively. [13] Table 2.2 illustrates foreign ownership percentage in ASE sectors according to number of listed companies within the research period.

Table 2.2

Percentage of Foreign Ownership in Amman Stock Exchange Sectors

		Foreign ownership			
Yrs	Number of listed companies	% in Financial	% in Services	% in Industrial	% in ASE
2004	192	47.44	25.6	36.8	41.3
2005	201	49.77	26.2	38.1	45.0
2006	227	47.73	36.6	43.7	45.5
2007	245	50.73	36.2	51.9	48.9
2008	262	52.10	33.9	53.3	49.2
2009	272	51.88	32.3	53.2	48.9

Resource: Annual Reports of Jordan Securities Commission for 2004 to 2009

In 2005, ASE performance reflected a great confidence in the Jordanian economy and Jordan's ability to overcome such circumstances. ASE continues its outstanding growth with the strong supervision and regulatory infrastructure, which compares well with the highest international standards. Compared with 2004, the General Shares Price Index rose by 93%, trading volume by 345 % and market capitalization by 105%. These percentages

[13] The privatization program that has been implemented by Jordan in 2000 is expected to attract more foreign investments (Naser et al., 2002).

reflect the growing relative weight of the capital market in the national economy (JSC, 2005).

In 2007, ASE has taken important steps to market itself internationally. It held two international forums for Jordanian companies in London and New York, the world's biggest financial centers. With the aim to interact with international financial markets and international investors as well as introducing investment opportunities in Jordan to foreign investors, the non-Jordanian ownership rose to 48.9% of the total market capitalization, compared with 41.3% in 2004 (JSC, 2007).

Despite the increased amount/percentage of non-Jordanian [14] ownership in ASE, few studies examined the influence of foreign ownership on the value relevance of the accounting information in Jordan. Anandarajan and Hasan (2010) pointed out that higher value relevance of reported earnings has been found in Jordan when foreign equity holders in local firms are involved. Therefore, it is interesting to study the influence of foreign ownership on the value relevance of the accounting information.

The current study extends the study of Anandarajan and Hasan (2010) by examining the influence of foreign ownership on the value relevance of earnings, book value of equity, and cash flows from operation in Jordan. Since the extent of foreign ownership has strong positive influence on the value relevance of earnings (Bae and Jeong, 2007; Anandarajan and Hasan, 2010), it is expected that extending foreign ownership in Jordan will also have positive influence on the value relevance of book value, and cash flows. Foreign

[14] Non-Jordanian term implies foreign and Arabs investments.

ownership as one of the current study's independent variables is measured whether a company has foreign ownership at end of the financial year (Anandarajan and Hasan, 2010).

2.3.2. Trading volume

While the trading volume is a valuable source of information about assets' value (Kim and Verrecchia, 2001), prior research found that trading volume play no role as information source about firm value (Admati and Pfleiderer, 1988; Varian, 1989; Kim and Verrecchia, 1991a, 1991b, 1997; Harris and Raviv, 1993; Kandel and Pearson, 1995). If the financial information disclosure is postponed to a later period, trading volume will be used as a better indicator on firm value (Verrecchia, 2001; Kim and Verrecchia, 2001).

Beaver (1968) found that earnings announcements led to changes in abnormal price and abnormally high trading. Divergence in earnings pre-disclosure stimulates higher the trading volume than price change (Bamber and Cheon, 1995). These findings suggest that trading volume is more strongly associated with investors' uncertainty (Callahan et al., 1997).

Karpoff (1987) examined the relationship between trading volume and share price and found that the share price-trading volume relation is important because this relation (1) provides insight into financial markets structure, (2) is important for event studies that use a combination of price and volume data to draw their conclusions, (3) is critical to discuss the empirical distribution of speculative prices and (4) has significant implications for future markets research where price variability affects the volume of trade in future contracts.

Cao (1999) argued that share prices will reflect more information when the informed trading induced by derivatives which will reduce the risk of investing in the underlying asset and in turn tends to raise the asset's price. This depends on whether the firm resources are allocated more efficiently due to more information revealed by share prices, and then the firm value will be increased (Khanna et al., 1994; Subrahmanyam and Titman, 1999). Many studies employed the relationship between trading volume and earnings announcement or share price (Karpoff, 1987; Kim and Verrecchia, 1991b; Bamber and Cheon, 1995). These studies concluded a significant positive association of share price and trading volume to earnings announcement.

Dontoh et al. (2004) examined the prediction that declined value relevance of accounting information could be due to increasing trading volume and their results supported the prediction. They found that (1) the value relevance of earnings and book values is negatively associated with the trading volume, (2) a slight decline from 26 % in early 1980s to 21.8 % in the late 1990s indicates that a decreasing proportion of the trading volume has been explained by the information events, which suggests that there was an increase in the trading volume overtime and (3) the influence of trading volume on lost firms and profit firms is not significantly different. While Karpoff (1986) concluded that the occurring of the informational events increase the trading volume, Dontoh et al.

(2004) concluded that these information events explain a declined portion of trading volume.

For Chinese stock market, Liu and Liu (2007) examined the influence of trading volume on the value relevance of earnings and book value and found statistically insignificant influence for this factor on the value relevance of these variables, although Chen et al. (2001) found that with high trading volume, earnings and book value were more value relevant.

In Jordan, trading volume differs among ASE sectors overtime. In industrial sector it is ranging from 12 % in 2006 to 28 % in 2004, while it is ranging from 7 % in 2006 to 47 % in 2005 for services sector (ASE, 2004-2009). However, ASE has small trading volume compared with developed markets. The trading volume according to ASE sectors within research's period is presented in Appendix 1.

Chen et al. (2001) referred to liquidity as a measure of the percentage of public share holdings over total shares outstanding. Their results support that accounting information is more value relevant for firms with higher public share holdings. Since liquidity explains the variations of value relevance among firms, small trading volume may not allow stock prices to fully reflect new information in the market. While individual holdings form a company's total tradable shares, individual investors generate most of the trading volume. A higher percentage of individual holdings indicates a more active market in which stock prices have the potential to fully reflect public information including accounting information. Liu and Liu (2007) found that increasing trading volume would increase market liquidity and efficiency, thus increasing the value relevance of accounting information.

Due to the dramatic changes in trading volumes in ASE within the research period and since the influence of trading volume on the value relevance of cash flows has not been well researched in Jordan, this study extends the studies of Chen et al. (2001), Dontoh et al. (2004) and Liu and Liu (2007) by adding cash flows from operation as a new variable with earnings and book value to examine the influence of trading volume on these accounting variables in Jordan.

Since trading volume has negative influence (Dontoh et al., 2004), insignificant influence (Liu and Liu, 2007) on the value relevance of accounting information, positive relationship with price change (Clark, 1973; Epps and Epps, 1976; Tauchen and Pitts, 1983) and noisy relationship with price change (Pfleiderer, 1984), this study has no expectation about the influence of trading volume on the value relevance of the accounting information in Jordan. Trading volume as one of the current study's independent variables is measured by total number of shares traded of a company at end of the financial year (Cready 1988; Cready and Mynatt 1991; Bhattacharya, 2001).

2.4. Corporate governance and value relevance

Increased corporate governance improves the quality of reported accounting information (Bae and Jeong, 2007). Recent research on corporate governance shows that without a clear consideration of corporate governance mechanisms, the value relevance of accounting information cannot be fully understood (Anderson, 1999). For the purpose of this study, the corporate governance group is traced by the financial disclosure time and financial disclosure level to examine their impact on the value relevance of earnings, book value of equity and cash flows from operation.

2.4.1. Financial disclosure time

To be relevant, FS information must be “Timeliness”. This means a decision maker must get the information before it loses its power to affect decisions. Information becomes useless if it is not available in such a time when it is needed or available long after it has future action value (Obaidat, 2007). Therefore, investors’ purchases and sales of the security may be postponed until the earnings report are released (Beaver, 1968).

There is an argument that disclosure timing is considered to be a positive attribute of company disclosure quality. This is supported by the results of Sengupta study (2004). Reporting timeliness is an essential element of adequate disclosure and it can be improved by increasing disclosure frequency (Dyer and McHugh, 1975; Givoly and Palmon, 1982; Debreceny et al., 2002). Previous studies on announcement timing (Whittred, 1980; Kross, 1981; Givoly and Palmon, 1982; Patell and Wolfson, 1982) provided evidence that bad news (lower than expected earnings) have been conveyed more by annual earnings delayed announcements than do the early one.

The reporting delays are defined by the number of days or months from the end of fiscal year and the release of the annual report (Lawrence, 1983; Sengupta, 2004). Financial reporting delay may lead FS users to search additional information (Whittred and Zimmer, 1984). Bushee and Noe (2000) and Bushee et al. (2003) provided evidence to support that the firms must respond to investors’ demand for more discretionary disclosure. This is because investors have to be concerned about the timely information that they have to receive from the firms that they are investing in. The demand for timely disclosure could be greater if firms have greater shareholders number (Sengupta, 2004) and if trading volume had declined, then segment disclosures would be initiated by the firm (Botosan and Harris, 2000).

When the company released the proper information without delay, it could help in reducing the probability of litigation. Firms should disclose the bad news quickly in order to reduce the potential litigation cost (Skinner, 1994, 1997). While disclosure time delay could generate private benefits to managers, board members who will gain little from the delayed disclosure will bear large monetary cost if litigation arises. This encourages the timely release of information to minimize the litigation cost and take actions in the interest of shareholders (Fama and Jensen, 1983; Weisbach, 1988; Borokhovich et al., 1996; Skinner, 1994, 1997).

Many studies found that earnings releasing delay is longer in firms that disclosed bad news (Kross and Schroeder, 1984; Begley and Fischer, 1998; Bagnoli et al., 2002). One factor that can mitigate the financial risk in market is disclosing bad news by managers.

Failing to do so on a timely basis will cause shareholder losses or damages or they might suffer an opportunity loss due to withholding good news (Ball et al., 2000). These damages can be referred to the difference between share price when sold based on the actual disclosure of a firm and share price if it sold based on a full and honest disclosure (Hurd and Wagner, 1990; Posner, 1992).

Measures that are related to investor base such as trading volume, shareholders number and firm size are found to be negatively influenced by the delay in the disclosure time (Sengupta, 2004). Therefore, timing is an important determinant of disclosure that could influence the value relevance of the disclosed information. Since increasing disclosure frequency improves the reporting timeliness (Dyer and McHugh, 1975; Givoly and Palmon, 1982; Debreceny et al., 2002), the value relevance of the accounting information will be positively influenced by the reporting timeliness and negatively by the reporting delay.

Profitability and total lags are varying inversely where higher profitability is related to shorter lags and vice versa. An increase in the reporting lags and some negative association between reporting lag and company's size has been found in Australian companies (Dyer and McHugh, 1975). These findings have been supported by Courtis (1976) and Davies and Whittred (1980).

In Jordan, many companies delay in releasing their financial reports. The delay is categorized according to three financial reports types (preliminary, semiannual and annual reports). Table 2.3 illustrates the percentages of Jordanian firms that submit their reports within the deadlines that are required by the securities law and disclosure regulation.

Table 2.3

Percentage of Jordanian Firms' Compliance to Disclose Periodic Financial Statements

Report type / Year	Preliminary reports DL < 45* %	Semiannual reports DL < 30 ** %	Annual reports DL < 90 * %
2004	69	75	64
2005	82	85	74
2006	95	88	88
2007	95	91	87
2008	97	90	87
2009	95	91	91

Resource: Annual Reports of Jordan Securities Commission, 2004-2009

* DL (deadline): not later than 45, 90 days after financial year end

** DL (deadline): not later than 30 days after first half of financial year

In 2005, the increased awareness and the JSC’s enforcement of the disclosure instructions, and its policy of imposing penalties on the violating companies that do not submit their periodic reports on time, have improved the companies’ compliance of the disclosure requirements to submit their periodic reports on time.

It is expected that financial disclosure time will have a positive influence on the value relevance of accounting information (earnings, book value, and cash flows) because, as mentioned before, timing could influence the value relevance of the disclosed information, and delay has a negative influence on trading volume, shareholders number and firm size (Sengupta, 2004). Since this study examines the impact of the financial disclosure time on the value relevance of the accounting information and in accordance with previous studies (Givoly and palmon, 1982; Kross and Schroeder, 1984), financial disclosure time as the independent variable was measured as whether Jordanian companies submitted their preliminary, semiannual and annual reports within the announcement time required by JSC.

2.4.2. Financial disclosure level

Financial information should possess primary qualitative characteristics, which are relevance and reliability to be subjected in the general purpose financial reporting (FAS 3, 1980). The qualitative characteristics studies found that relevance concept is the primary qualitative characteristic, followed by reliability, and they are complementary rather than conflicting in nature (Stanga, 1980). When information can be used to determine alternative courses of action for FS users, then this information is considered to be relevant for decision makers who might take (without such knowledge) a different decision, which leads to a different outcome (Hassan, 2004). The relevant information assists the decision makers to better evaluate the past and present companies' events and enables them to well predict future events and correct past evaluations before making their decision (McDaniel et al., 2002; Hassan, 2004; Obaidat, 2007).

Many factors can affect the relevant information and keep FS away from fully covering the investors' needs (FAS 1, 1978). In turn this will affect the financial reporting quality. This is because; (1) FS are not the only one source of information (Kothari, 2001) which leads investors to look for relevant information from other sources; (2) the asymmetric information (agency problem) occurs because managers know more about firm affairs than investors (Jensen and Meckling, 1976; Eisenhardt, 1989; Fleisher, 1991; Godfrey et al., 2003); (3) economic and technology changes have affected the accounting practice (Oyerinde, 2009); (4) shifting from industrialized to high technology service economy leads FS to lose their value relevance (Collins et al., 1997; Brown et al., 1999; Francis and Schipper, 1999; Lev and Zarowin, 1999) and (5) differences in accounting information quality occurred due to cross-country differences in disclosure and measurement practices (Alford et al., 1993; Amir et al., 1993; Harris et al., 1994; Joos and Lang, 1994).

FS users rely more on information that is disclosed in companies' annual reports which reflect the financial reporting environment of these companies. Then users may not suffer from difficulty in understanding financial information. Incomplete or misleading FS [15] and lack of comparability, consistency and reliability are what FS users complain about (Abu-Nassar and Rutherford, 1996).

High quality information will reduce the uncertainty of FS users (Miller and Bahnson, 2002) and this will increase their confidence in firms' FS, which will lead to increase investments in these firms (Price, 1998; Bushee and Noe, 2000), and consequently, these firms will experience higher share price (Hassan, 2004).

Two main points can address the lack of financial disclosure quality. First, the environment changes have affected FS information content value relevance which has declined over time (Lev and Zarowin, 1999; Francis and Schipper, 1999). Second, the

[15] These shortcomings have its effect on the decline in the price of Enron's share (Benston and Hartgraves, 2002).

annual reports did not include information required by disclosure standards (JSC, 2007), and this leads to decline in value relevance of accounting information. The second point was concerned in this study as lack of financial disclosure quality.

A general belief is that disclosure quality significantly influences the capital market participants' decisions (Kothari, 2000; Heflin et al., 2001). If the disclosed information is valued by market participants as high quality, then a positive correlation is expected between this information and share price. This will have benefits to both firms and investors (Gelb and Zarowin, 2002). The disclosed accounting information can be value relevant if it assists investors to evaluate the firm and it has enough reliability to be reflected in share price (Barth et al., 2001).

Most recent standards generate accounting information that is value relevant (Healy and Palepu, 2001). The value relevance can be used as a metric for evaluating accounting standards (Holthausen and Watts, 2001). Many studies regressed the stock prices on per share values of earnings and book value of equity to examine the accounting disclosures value relevance. They concluded that the difference in the obtained R^2 values indicates that the accounting disclosure value relevance has changed over time or it differs across disclosure regimes (Brown et al., 1999). Some improvements in the information disclosure quality have been found in prior research compared to the earlier ones (Solas, 1994; Abu-Nassar and Rutherford, 1996; Naser, 1998).

Prior studies indicated that financial disclosure has direct and indirect influence on firm value, but they do not fully explain how this factor influences the value relevance of earnings. Although no direct relation has been found between disclosed annual reports information and a firm's share price (Cormier et al., 2001), financial disclosure level has significant impact on the value relevance of earnings in Germany but not in Canada and France, therefore, it is still unclear as to whether this factor influences the value relevance of earnings (Cormier and Magnan, 2007).

In Jordan, the variations in the information disclosure quality might be attributed to two main reasons: (1) most of these studies were undertaken before applying IAS in Jordan; and (2) the privatization program attracted more foreign investment and in turn high information disclosure standards in the annual reports are required (Naser et al., 2002). In Jordan, since companies have to prepare their reports according to IAS (JSC, 2007), disclosure reports have been considered to be having quality defects if the companies fail to: (case A) prepare their FS according to IASs requirements; (case B) disclose material information; and (case C) provide the JSC with all the disclosure items that should be included in the annual report (JSC, 2004-2009). Table 2.4 illustrates the percentage of these cases in ASE within the research period.

Although JSC (1) pursues the compliance of listed companies with disclosure requirements, (2) imposes penalties on violators to ensure the supremacy of law and enhance disclosure in the market, and (3) implements electronic filing system to enable companies to provide their disclosure information electronically, Table 2.4 shows a wide fluctuation in the reporting quality defects the within research period. This might be explained by the futility of the penalties that imposed on Jordanian companies or the company's management lacks the sufficient awareness.

Table 2.4

Percentage of Reporting Quality Defects in Amman Stock Exchange

Failure / Year	Case A %	Case B %	Case C %
2004	44	3	17
2005	55	4	14
2006	58	14	5
2007	0.5	11	62
2008	1.6	3.2	36.3
2009	3.3	29.8	33

Resource: Annual Reports of Jordan Securities Commission, 2004-2009

Many studies have investigated the association between accounting information disclosure quality and share price (Eccher and Healy, 2000; Gelb and Zarowin, 2002; Lang et al., 2003; Hassan, 2004; Hassan et al., 2010). These studies found that the disclosed accounting information can be considered as high quality if the accounting information is highly associated with share price. Also, high earnings response has been found in firms with high disclosure level than those with low one. The influence of financial disclosure on the value relevance of earnings and book value has been investigated and it has been found to be positive and significant (Hassan, 2004). In Jordan, Anandarajan and Hasan (2010) investigated the influence of disclosure level [16] on the value relevance of earnings and found it to be significantly positive.

[16] Disclosure level in Anandarajan and Hasan study (2010) is measured by the score of the Central for International Financial Analysis Research Index of Transparency (CIFAR).

Therefore, this study extends these studies by examining the influence of financial disclosure level on the value relevance of earnings, book value, and cash flows in Jordan to provide evidence to literature about this area of research. It is expected for the current study to find that disclosure level will have a strong, positive influence on the value relevance of these accounting variables because high disclosure level will reduce the asymmetric information, which is an important driver that affects the value relevance of the accounting information (Eng and Mark, 2003; Hassan, 2004). The disclosure level as one of the current study's independent variables is measured as to whether a company complies with the disclosure requirments (cases A, B, or C) stated by JSC in Jordan (Naser et al., 2002; Dahawy, 2009).

2.5. Company's characteristics and value relevance

The relation between the market value of the company and its characteristics is dependent upon market structure considerations and stock market conditions (Lustgarten and Thomadakis, 1987). While the current study examines the influence of company's characteristics on the value relevance of earnings, book value of equity and cash flows from operation, the company's characteristics in this study are traced by the number of shareholders, listing status and company's age. These characteristics are discussed in the next subsections.

2.5.1. Shareholders number

According to the Law, shareholders are considered to be owners. Firm financial position is considered to be stronger if the proportion of the shareholders' equity is larger (Glautier and Underdown, 1997).

It is concluded that for developed equity market (Japan), reducing the minimum trading unit (MTU) [17] will increase the number of shareholders and the stock prices, which means that there is a significant positive relationship between stock price response and the increase in shareholders number. This is according to Amihud et al. (1999) who examined whether increasing firms' shareholders number will increase its stock value. They point out that companies could expand their shareholders number by reducing their MTU. This is because small investors are unable to trade the minimum unit if it requires a large amount of money. Investors prefer to include their portfolios with many different stocks, where each is required a smaller outlay. Their study concluded that MTU reduction has increased both the number of shareholders and the stock prices. This is supported by Hauser and Lauterbach (2003).

Increasing firms' shareholders number could result in increasing the firms' market value and reducing the firms cost of capital, thus managers are motivated to expand the firms' shareholders number (Merton, 1987; Amihud et al., 1999). Companies listed in main board have to disclose more financial information if they have greater number of

[17] Minimum trading unit (MTU) is the minimum number of shares that can be traded on an exchange (Amihud et al., 1999).

shareholders (Malone et al., 1993). Listing on main board exchange can increase the firm shareholders number and this could positively and significantly affect the share price appreciation (Amihud et al., 1999).

Investigating the influence of shareholders number on the disclosure level has been widely researched and a significant positive influence has been concluded (Singhvi and Desai, 1971; Firth, 1979; Cooke, 1989a, 1989b, 1991, 1992; Imhoff, 1992; Malone et al., 1993; Wallace and Naser, 1995; Heflin et al., 2001; Al Arussi et al., 2009). The current study extends these studies by testing the influence of the shareholders number on the value relevance of earnings, book value, and cash flows that has not been researched before.

It is expected for this study to find that the extent in shareholders number will positively influence the value relevance of accounting information because companies with large number of shareholders are like to improve their disclosure quality in order to ensure equal relevant information access for all shareholders and respond to different shareholders' needs (Al Arussi et al., 2009). Shareholders number as one of the current study's independent variables is measured by the total number of shareholders of a company (Naser et al., 2002; Al Arussi et al., 2009).

2.5.2. Listing status

Capital market is a place where both investors and companies come together to raise their capital. [18] To raise its capital, a company should go to the market place to choose the best mix of capital and to decide how much capital they want to raise. In capital markets, the funds long-term sources (stocks and bonds) have been traded. Capital markets can be divided into main markets on which new issues of securities are sold, and second markets on which outstanding securities are traded (Abdul Samad, 2002; Lee et al., 2004; Sori and Mohamad, 2008). Stakeholders always need to be provided with the accurate information that assists them in evaluating companies in both markets. This information could be extracted from FS information and reflected in share prices.

In Jordan, ASE has two types of boards, which are main board (first or primary market) and second board (secondary market). [19] A number of requirements have to be found in the companies to be listed on the main board; otherwise they will be listed on the second board (Wong, 1996). In Jordan, these requirements are reported in Appendix 2.

Many small firms employed high technology and have great potential to grow but do not meet the main board listing requirements. Second board markets have been established by many stock exchanges to provide a place for those companies to enable investors to enjoy business opportunities outside the main board market by adopting a broader

---

[18] A market is a place in which supply and demand schedule has been submitted by a goods sellers and buyers. To be traded in market, a good such a security must be characterized by widely demanded, homogenous, transferable and storable at low cost (Krause, 2000).

[19] For the number of Jordanian companies listed in main and second board, please refer to Table 3.3.

investment strategy (Lee et al., 2004; Sori and Mohamad, 2008). Second board firms are of lower quality due to problems that are associated with high asymmetric information, low liquidity, and low volume of trading than those in the main board (How et al., 2007). The competition among companies that are listed in main board is higher compared to those listed in second board, and thus public eyes are more focused towards them (Abdul Samad, 2002).

While some studies investigated the main board companies to conduct the value relevance of the intangible assets (Mohd et al., 2006; Abdul-Shukor et al., 2008) and of earnings and book value (Aba Ibrahim et al., 2009), the second board has not been well researched. Therefore, this study extends the above studies by testing whether listing companies on main or second board can influence the value relevance of their earnings, book value, and cash flows. It is expected for this study to find that the accounting information will be more value relevant for companies listed in main board than those listed in second board because the second board companies are of low quality due to the high asymmetric information (How et al., 2007), while the main board companies are required to disclose more relevant information to reduce FS users uncertainty (Abdul Samad, 2002). This variable as one of the current study's independent variables is measured by differentiating the main and second board companies (Al Arussi et al., 2009).

2.5.3. Company's age

The year in which a firm is registered at the legal affairs bureau is defined as its birth year and the period from this year to current year is the age of the firm (Sakai et al., 2010; Choi et al., 2011). The impact of company's age on the financial disclosure has been tested and it found to be significant because old companies might improve their annual reports over time (Camfferman and Cooke, 2002; Al Arussi et al., 2009). As a result, the asymmetric information is reduced and the value relevance of the accounting information is enhanced.

The correlation of firm age with its profitability has been examined by Warusawitharana (2010) and found to be positive in the firm's early years, followed by a slow declined correlation between profitability and age. In particular, profitability jumps have been found in young firms that have higher investments, sales growth and external financing. Accordingly, the age impact on firms' decisions is more pronounced in younger firms.

A company's age (life cycle) has been divided by the economic literature into four periods, which are start-up, growth, mature and decline (Anthony and Ramesh, 1992; Black, 1998; Aharony et al., 2006). This classification is according to the firm's specific characteristics, such as the firms' uncertainty degree, assets in place, and investment opportunities (Mueller, 1972; Myers, 1977; Anthony and Ramesh, 1992).

The influence of company's age on the value relevance of earnings and cash flows has been tested by Black (1998) and Aharony et al. (2006). Cash flows are more value relevant than earnings in most firms' life cycles (Aharony et al., 2006). Black study (1998) concluded that cash flow from operation is more value relevant than earnings in growth and decline and mature decline firms. It is incrementally significant in mature and mature decline firms, while it is marginally significant in growth mature firms. Cash flow from investment is more value relevant than earnings only in start-up firms, while it is not in growth and decline firms. It is incrementally significant in mature and mature decline firms. Cash flow from financial activities is marginally significant in growth mature and mature firms, while it is not in mature decline firms.

A major factor affecting the value relevance is the asymmetric information, which is argued to be higher in young companies than in old ones (Ho and Wong, 2001; Al Arussi et al., 2009). Therefore, young companies have to increase their disclosure to provide more relevant information. On the other hand, old companies try to differentiate themselves from the younger ones by disclosing more information to provide relevant information as they have more control over their market (Hughes, 1986; Al Arussi et al., 2009).

The current study classifies its companies sample into old and young according to its birth date. This study links the company's age to the earnings, book value, and cash flows to investigate whether company's age has any influence on the value relevance of these accounting variables. While Black (1998) and Aharony et al. (2006) examined the value relevance of earnings and cash flows in a company's different life cycles, the influence of company's age on the value relevance of book value has not been researched before, particularly in Jordan. The current study extends these studies by testing the influence of company's age on the value relevance of earnings, book value, and cash flows in Jordan.

As old companies always improve their annual reports quality overtime and at the same time young companies are motivated to improve their financial disclosure as they choose to go public at an early age in order to have financial resources to grow in the future (Huynh and Petrunia, 2010), the current study has no clear idea about the influence of the company's age on the value relevance of the accounting variables. The company's age as one of the current study's independent variables is measured by the number of company's life years (Alsaeed, 2005; Cazavan and Jeanjean, 2007; Firth et al., 2008).

2.6. Type of industry and value relevance

Different industries provide different levels of financial information. Limited financial information could be provided by banking, insurance sector, and financial services in comparison with industrial sector (Lymer, 1997). This is due to that each industry has its own characteristics in terms of growth, competition and risks. A difference in these characteristics will result in differences in disclosure policies among companies (Dye and Sridhar, 1995). Bartram (2007) showed that industry classification is an important factor in determining the relationship between earnings, cash flows, and stock prices.

Prior value relevance studies concluded that the accounting information is value relevant in industrial sector (Harris et al., 1994; Misund et al., 2005; Vardavaki and Mylonakis, 2007; Hadi, 2006; Oyeriend, 2009; Gee-Jung, 2009), while it is declined in this sector (Collins et al., 1997; Francis and schipper, 1999). Other value relevance studies concluded that the accounting information is value relevant in services sector (Harris et al., 1994; Ely and Waymire, 1999; Dastgir and Velashani, 2008; Gee-Jung, 2009), while it is irrelevant or declined in this sector (Amir and Lev, 1996; Bao and Bao, 2001). All the mentioned studies examined the value relevance of the accounting information according to different sectors, while the impact of industry type on the value relevance of the accounting information has been examined in few studies (Abayadeera, 2010a, 2010b).

Abayadeera (2010a, 2010b) examined the influence of industry type on the value relevance of earnings and book value for Australian companies. Her sample included 91 companies from different sectors (pharmaceuticals, biotechnology and life sciences; technology, hardware and equipment and telecommunication services). She found that book value is value relevant in both industrial and services companies, while earnings are value relevant in services companies.

As one-third of Jordan's rapid economic growth is addressed to industrial sector, this sector plays a major role in Jordanian economy. This might explain the GDP growth at around 35% in the 1970s that is doubled in the last two decades (Alakra et al., 2009). Despite this growth, services sector’s share was even higher than that of industrial due to activity in the real estate market (Marashdeh, 1996).

The current study incorporates industry type impact on the value relevance of earnings, book value, and cash flows in order to determine whether the industry type display any influence on the value relevance of these accounting variables. Depending on ASE sectors classification, the current study traces the impact of two different sectoral groups, which are the industrial and services sectors (excluding financial sector),[20] on the value relevance of these accounting variables. Each sector includes companies under different activities (please refer to Appendix 3).

Since the accounting information is positively or negatively associated with share price in different industry types, it is expected for the current study to find that the type of industry will influence the value relevance of earnings, book value, and cash flows in Jordan. The researcher has no prediction about which sector will have more influence on the value relevance of these three accounting variables because this influence has not been well researched before in addition to the mixed results in the previous studies. Type of industry as one of the current study's independent variables is measured by differentiating the industrial and services companies (Naser et al., 2002; Ahmed et al., 2003; Abayadeera, 2010a, 2010b).

2.7. Share price proxies and value relevance

Securities are rights that must be documented and this document must be presented when executing or transferring these rights (Krause, 2000). When these rights became a future cash flows sequence, they will be named securities (Dumas and Allaz, 1996). Also,

[20] Financial sector (banking, insurance and finance industry) has been excluded from the sample due to the specific accounting practices nature and it is controlled by specific regulations.

information about a security can be revealed by the market (Hayek, 1945; Krause, 2000) on which prices can be observed at nearly no cost (Krause, 2000). While no additional cost has been involved, the investor can (1) increase his information, (2) reduce the risk of trading at advantageous price, and (3) reduce trading cost (Krause, 2000).

While reducing trading cost can benefit the investor by increasing his return and reducing the price that he is willing to buy for assets, it can benefit the assets issuers by issuing their assets at a higher price, reducing the cost of capital, and increasing profit (Keynes, 1930). The latter will give incentives for more investments and promote economy growth (Krause, 2000). Thus, investors used the securities prices to indicate the value of the firm that they decide to invest in.

Fama (1970, 1991) pointed out that under the efficient market hypothesis (EMH), share market will positively respond to earnings that are delivered via decision taken according to relevant information. A reaction has been tested between share prices and earnings announcement as (1) in the week following the announcement date (Beaver 1968), (2) the day and the day before the announcement date (Morse, 1981), and (3) within hours of the announcement date (Patell and Wolfson, 1982). It is found that much of the change in share price is associated with the changes in earnings that happened before the annual earnings announcement date (Benston, 1967; Ball and Brown, 1968).

Like other countries, Jordanian financial market (ASE) provides investors with daily, weekly, monthly, and yearly bulletin information by ASE website database to evaluate the performance of ASE listed companies. This information includes the company's name and symbol according to boards and sectors, last stock market closing price, highest and lowest price, closing price, change in share prices, value traded in Jordanian Dinar, average annual share price, number of stocks and turnover ratio.[21] The information related to share prices at different periods is used as a measure to support decisions of investors, managers, analyst and other users by comparing the current published information about a company with that of other companies or within its past periods.

The capital market research relates the accounting information with share price to infer the importance of the accounting information (Hassan, 2004). In prior studies, share price has been measured in different dates related to the purpose of these studies (please refer to Table 3.2). This study uses share price as the study's dependent variable in three proxies which have been used in the accounting value relevance studies. The share price is used in this study as average annual share price, annual closing share price, and share price after a three-month period following the financial year-end (ATM-share price).

2.7.1. Average annual Share price

Although average annual price per share is published in most of the financial markets, few studies employed this measure in the valuation studies, such as Grabowski and Mueller (1975) and Oyerinde (2009). Following these studies, the current study uses share price as the annual share price rates (average price). This variable as one of the

[21] Please refer to Appendix 4 as example of yearly bulletin information.

current study's dependent variables is measured as average annual share price of a company listed on ASE of the financial year.

2.7.2. Annual closing share price

Many studies on the value relevance of accounting information used annual closing share price (Beaver et al., 1980; Black, 1998; Powell et al., 2001; Bao and Bao, 2001, 2004; Bao, 2004; Khaleel, 2005; Anandarajan et al., 2006; Chen and Zhang, 2007; Dastgir and Velashani, 2008). Following the aforementioned studies, this study uses the annual closing share prices that are documented in the yearly bulletin of ASE for the companies listed on ASE within the research period. This variable as one of the current study's dependent variables is measured by annual closing share price of a company at end of the financial year.

2.7.3. Share price after a three-month period following the financial year-end (ATM-share price)

Basu (1983) pointed out that accounting data is available within three months of financial year end. So, the accounting information cannot be available at the reporting period end as there is 2-3 months delay before the announcement of the audited annual report (Klimczak, 2008). Therefore, many value relevance studies used share price after a three-month period following the financial year-end (Hellstron, 2005; Vardavaki and Mylonakis, 2007; Bae and Jeong, 2007; Habib and Weil, 2008; Kanagaretnam et al., 2009). This variable as one of the current study's dependent variables is measured by share price of a company after a three-month period following the financial year-end (ATM-share price).

2.8. Control variables

As referred in prior research, many variables have been found to be controlled when examining the value relevance of the accounting information. For the purpose of the current study, two variables have to be controlled, which are firm size and leverage. These control variables are included in the study's models to indicate their impact on the results. These variables are discussed in the next subsections.

2.8.1. Company's size

Large companies have large accounting variables then large book value and large earnings, therefore it is important to control the difference in size among companies (Ota, 2001). In prior studies, company's size has been used in different measures, such as market capitalization (Harris and Gurel, 1986; Shleifer, 1986; Vijh, 1994; Beneish and Whaley, 1996; Lynch and Mendenhall, 1997; Tkac, 1999; Kim and Yoo, 2009; Roll et al., 2009), log of assets (Lin et al., 2007; Firth et al., 2008; Anandarjan and Hasan, 2010), sales turnover and capital employed (Firth, 1979; Dahawy, 2009), number of shareholders, turnover and total assets (Cooke, 1991) and number of employees, turnover, companies average market value, and total assets employed (Craven and Marston, 1999; lang and Lundholm, 2000).

In industrial economies literature, the association of firm size and profitability has been tested and mixed findings have been found. While Marcus (1969) and Amato and Wilder (1985) found a weak negative or no association, Hall and Weiss (1967) found it to be positive. Dhawan (2001) examined the relationship between profitability and firm size for U.S. companies according to services and manufacturing sectors, and he concluded a negative association between profitability and firm asset size. Value of assets in place is equal to the firm value (Jorion and Talmor, 2001). It is found that firms with a similar size have greater tendency to move up and down together with their share prices than firms with different size (Huberman and Kandel, 1987).

Since larger firms are more exposed to the public eye, take less time to report (Dyer and McHugh, 1975) and more information is available about them, foreign investors tend to have more knowledge about large firms than about small ones (Kang and Stulz, 1997). This leads to the expectation that less information asymmetry or lower cost of information acquisition will be found between domestic and foreign investors in large size firms (Covrig et al., 2006). Kim and Yoo (2009) measured the firm size by its common stocks market capitalization at the end of a year and used it as a proxy for the information asymmetry degree. [22] They argued that the larger the firm size, the lower the information asymmetry degree. A negative association has been found between firm size and information in the earnings announcement (Bamber, 1986).

[22] Market capitalization is a major factor that is used in determining the relationship between earnings, cash flows and stock prices (Bartram, 2007).

From the aforementioned discussion, since the firm size is an important factor related to the firm's accounting information availability to reduce the information asymmetry, the current study uses this variable as a control variable to conduct the value relevance of earnings, book value, and cash flows in Jordan. Following Anandarajan and Hasan (2010) who used the firm size as their control variable to examine the value relevance of earnings for Jordanian companies, the current study extends their study by employing the firm size as a control variable to examine its influence on the value relevance of earnings, book value, and cash flows for ASE companies. This variable is measured in this study by log of total assets (Hassan, 2004; Lin et al., 2007; Anandarajan and Hasan, 2010).

2.8.2. Leverage

Financial ratios are commonly extracted from FS (balance sheet, income statement, cash flows, etc.). While the financial ratios are categorized into four main categories, the financial leverage (debt to total assets ratio) has been categorized within the financial structure category (Wang, 2009). [23] Companies that are financed via debt can be considered as highly leveraged one if this ratio increased. This implies more risk which will be associated to the firm's operation.

Since high levels of debt increase the interest payments (Matsa, 2010), too high leverage ratio would make an investment at risk (Myers et al., 1998). Although leverage is a strong predictor for a firm's credit rating, firms' investments riskiness is another factor that

[23] The main four categories for evaluating financial performance of firm are financial structure, solvency, turnover and profitability. Other ratios in financial structure category are; fixed assets to stockholder's equity ratio, fixed assets to long term liabilities ratio, fixed assets to long term capital ratio, stockholder's equity to total liabilities ratio and working capital to total assets ratio. The ratios in each group are similar (Wang, 2009).

affects this rating. A firm is considered to be having lower credit rating if it has low leverage but a very risky investment than a firm with high leverage but more conservative investments. Decreasing a firm's leverage could be a wise step to take to reduce the probability of firms to be in financial distress because when firms cannot fulfill their debt payments, bankruptcy may occur (Verwijmeren and Derwall, 2010).

Firms that disclose information of high quality incurs lower debt and equity capital cost (Botosan, 1997; Sengupta, 1998; Botosan and Plumlee, 2002). According to the financial theory, financial leverage (using the debt capital) will increase the shareholders risk. While a positive correlation has been found between the financial leverage and the equity risk (Hamada, 1972; Galai and Masulis, 1976; Karma and Sander, 2006), a negative relationship between leverage and a firm's profitability has been found (Rajan and Zingales, 1995; De Jong et al., 2008; Verwijmeren and Derwall, 2010).

Leverage is included in the current study as a control variable because companies' risk level is asserted to play a moderating role in accordance with the factors that influence the value relevance of accounting information (Kothari, 2000). Leverage in this study is measured by the ratio of debt to total assets (Anandarajan and Hasan, 2010; Choi et al., 2011).

Finally, from the aforementioned discussion in previous sections (2-3 to 2-8), the gap between the current study and prior studies is reported briefly in table 2.5.

Table 2.5
Research Gap Relative to Prior Studies

No.	Prior studies	Research gap
1	Examining - Value relevance of earnings, book value, or cash flows individually or in a combination of two relative to one or more share price measurements. (Bowen et al., 1987; Dechow, 1994; Amir and Liv, 1996; Collins et al., 1997; Francis and Schipper, 1999; Barth, 2000; Bao, 2004; Hadi, 2005; Vélez-Pareja, 2005; Anandarajan et al., 2006; Thinggaard and Damkier, 2008; Thi and Schultze, 2009; Oyerinde, 2009; Gee-Jung, 2009; Anandarajan and Hasan, 2010). - Value relevance of earnings per share, book value of equity per share, and cash flows (not defined) per share simultaneously (Khanagha et al., 2011).	Examining the value relevance of earnings per share, book value of equity per share, and cash flows from operation per share simultaneously relative to three share price proxies (average annual share price, annual closing share price and ATM-share price).
2	Examining whether the value relevance of earnings per share, book value of equity per share is influenced by: - Foreign ownership (Bae and Jeong 2007; Anandarajan and Hasan 2010). - Trading volume (Dontoh et al., 2004; Liu and Liu, 2007).	Relative to three share price proxies, examining the value relevance of earnings, book value, and cash flows influenced by: - Foreign ownership. - Trading volume.
3	Examining impact of - Disclosure timing on financial disclosure quality (Dyer and McHugh, 1975; Whittred, 1980; Kross, 1981; Givoly and Palmon, 1982; Patell and Wolfson, 1982; Debreceny et al., 2002; Sengupta, 2004). - Shareholders number on the disclosure level (Singhvi and Desai, 1971; Firth, 1979; Cooke, 1989a, 1989b, 1991, 1992; Imhoff, 1992; Malone et al., 1993; Wallace and Naser, 1995; Heflin et al., 2001; Al Arussi et al., 2009). - Industry type on the value relevance of earnings and book value (Abayadeera, 2010a, 2010b).	- Financial disclosure time. - Shareholders number. - Type of industry.
4	Relating accounting information disclosure quality to share price (Eccher and Healy, 2000; Gelb and Zarowin, 2002; Lang et al., 2003; Hassan, 2004; Hassan et al., 2010).	- Financial disclosure level.
5	Examining - Impact of company's age on the financial disclosure (Camfferman and Cooke, 2002; Al Arussi et al., 2009). - Value relevance of earnings and cash flows in a company's different life cycles (Black, 1998; Aharony et al., 2006).	- Company's age.
6	Examining main board companies to conduct the value relevance of the intangible assets (Mohd et al., 2006; Abdul-Shukor et al., 2008) and of earnings and book value (Aba Ibrahim et al., 2009).	- Listing status.

2.9. Theoretical framework

In social sciences, an important interaction between theorizing and empirical work has been documented in the literature. Theories are necessary in (1) defining the interest areas, (2) differentiating the similar and dissimilar phenomena, and (3) tracking the changes in social and economic categories. The interaction between theory and definition has occurred due to gradually, repeatedly, and continually redefining concepts. The interaction between theory, empirical investigation, and conceptual refinement has affected the social facts collection (Gammeltoft et al., 2010). In the following subsections, the theories that are adopted in this study are discussed.

2.9.1. Valuation theory

When using the word "value", much confusion arises because it is often used to describe many concepts. Some of these concepts include the actual price exchange in the open market and value or market value which is an estimation of the stock selling price in the market. In the economics language, price is market value and they can both be considered as exchangeable values (Damodaran, 2007). Many complex concepts which are drawn from economics, finance, and accounting fields must be well understood to fulfill the valuation requirements. Valuing a firm is an exact science, which can vary depending on business type and the reason for the valuation (Damodaran, 2002, 2006). Since firm valuation is important to examine the value relevance of accounting information to support FS users' decisions, the major theory that is adopted in this study is the valuation theory.

Three primary value approaches have been considered in valuation theory which are: the cost (or assets) approach; the income approach and the market approach (Damodaran, 2007). **The cost approach** focuses on determining the firm's assets market value less the liabilities fair market value to compute the net assets fair market value. The economic principle of substitution, which the cost approach is based on, replaces the existing assets by the cost with functional equivalents that give the owner the same economic benefits. This approach has been used in many studies (Lang et al., 1989; Liu et al., 2002; Lie and Lie, 2002). This approach, importantly, is not particularly applicable to valuing whole firms or equity interests.

The income approach includes variations based on economic income definition, projection availability and discount rate determination. However, the valuation theory of each method depends on the same framework of the basic approach of discounted economic income. In this approach, the economic income is usually defined as: dividends, net cash flows to equity, net cash flows to invested capital, or net income after taxes. The expected economic income future periods are estimated and discounted by using an appropriate discount rate to present value. This approach has been used in many studies (Samuelson, 1937; Williams, 1938; Durand, 1957; Gordon, 1962; Shiller, 1981; Fuller and Hsia, 1984; Sorensen and Williamson, 1985; Poterba and Summers, 1988; Fama and French, 1988; Damodaran, 1994, 2002, 2006; Foerster and Sapp, 2005). Using the basic income approach of discounted economic income in forecasting economic income in future periods has a common hurdle, which is the sufficient availability of a reliable set of future projected cash flows or earnings.

The market approach involves two primary variations: the first is the comparable transactions approach, which seeks market information on sales of comparable assets to get the fair market value of entity or assets. In this approach, the valuation (appraisal) starts by collecting information on market transactions that include assets sale and purchase (long term) comparable in nature to the valued entity. The appraisal can find market multiples to express the sales price in such basis sufficient to be applied to the entity or assets (Damodaran, 2002, 2007).

The second market-based approach is the guideline companies' approach of comparable guideline companies. In this approach, the appraisal begins by collecting market data about the financial performance of companies, which have a similar industry, with related functions and risks to the subject assets. The appraisal gathers a series of market multiples, based on the availability of comparable firms and data, which can be applied to the similar financial data for the company (Damodaran, 1994, 1999, 2007). These approaches have been used in many studies (Boatman and Baskin, 1981; Kaplan and Ruback, 1995; Beatty et al., 1999; Cheng and McNamara, 2000; Bhojraj and Lee, 2002; Bhojraj et al., 2003).

Under a willing buyer/seller concept, the fair market value (of assets or firms) establishment will be the same objective of all valuation approaches. Actually, to determine value, valuation analysts may follow more than one method, and often, results of one method with another have been corroborated (Damodaran, 2007). Since this study tries to test the value relevance of the accounting information (earnings, book value, and cash flows), the market approach then the guideline companies approach are found as relevant to be adopted in this study.

The current study tries to extend this approach to include different accounting variables with different measurements of equity values. Since changes in accounting numbers could reflect changes in market equity values for companies in similar industry, this approach might assist market participants to better evaluate the changes in firm value.

In order to assess the usefulness of various accounting information in equity valuation, value relevance research examines the empirical relation between this information and stock market values (or changes in values). This relation can be investigated by two types of valuation models, which are the price model and the return model. While the return model examines the relation between stock returns, earnings and earnings changes, the price model examines the relation between share price, book value and earnings (Barth, 2000; Ota, 2001; Barth et al., 2001).

The choice between adopting price and returns models is dependent on the study's question. Price model is suitable for the determination of the value-relevance of accounting information, while returns are more suitable for explaining changes in value over the time (Whelan, 2004). For the current study, price model is the suitable one as this study focuses on the value relevance of the accounting information.

Accurate market price estimation must be produced for any valuation model to have validity. So the model should reflect the market culture and conditions at the time of the valuation. It is a must to remember that the model should represent the market underlying fundamentals and that the resulting figure of the valuation is "value" (Damodaran, 2002, 2007). The value relevance empirical research has its roots in the equity valuation models' theoretical framework (Vishnani and Shah, 2008). Ohlson (1995) and Felthman and Ohlson (1995) point out that the firm value can be expressed as a linear function of book value, earnings, and other value relevant information.

Since the price valuation model is used in previous studies to examine the value relevance of the accounting information (please refer to Table 2.1), it is relevant to be adopted in this study.

2.9.2. Efficient market hypotheses (EMH)

The early valuation studies are based on capital market theories. Ball and Brown (1968) were aware of Modigliani and Miller (1958) study which proposed that Efficient Market Hypothesis (EMH) is concerned in capital market studies, so they assumed that EMH is maintained (Brown, 1989; Klimczak, 2008).

In the late 1960s, a considerable doubt about the usefulness of the accounting information to evaluate the firm's financial health had been expressed (Hassan, 2004). Therefore, the capital market research uses share price to examine whether the reported accounting information is useful to market participant for firm evaluation (Brown and Howieson, 1998). Ball and Brown (1968) and Beaver (1968) revealed that the market efficiency could provide a justification for the share price behavior selection as an operational test for the information usefulness in FS. They examined the influence of accounting announcement on share price. They are considered by Kothari (2001) to be the pioneers in the accounting capital market research. Brennan (1991) points out that Ball and Brown (1968) concluded that earnings as part of FS are used in forming share prices.

Three developments helped Ball and Brown (1968) and Beaver (1968) in developing their empirical accounting capital market research, which are: (1) positive economic theory; (2) efficient market hypotheses (EMH) and capital assets pricing model (CAPM); and (3) the event study methodology (Kothari, 2001). Based on the EMH and CAPM, the accounting capital market research has been developed (Hassan, 2004). If the market prices set is exactly the same when it is conditioned on the information or not, the market is considered to be efficient. Hence, the market efficiency will be referred to how the accounting information can reflect the changes in share prices (Brown, 1994). By comparing share prices immediately before and after releasing the information to the public, the effects of accounting information on share price can be investigated. This is the first approach of the accounting capital market research. The changes in share prices will be used to infer the usefulness of the published accounting information (annual reports) to the market participants (Brown, 1994; Kothari, 2001; Hassan, 2004).

As a study on value relevance is best done when the market is at its best (efficient) and since ASE obtained some very impressive growth rates within the last decade, it could be considered as efficient market. Therefore, EMH approach was adopted in the current study to examine the ability of the accounting information (earnings, book value, and cash flows) that are published in the annual financial reports to reflect the variance in share prices for Jordanian companies listed in ASE.

2.9.3. Foreign investment theory

While there is no established theory on multinational companies (MNCs) or foreign ownership prior to the 1960s (Dunning and Lundan, 2008), attempts to explain firms multinational activities have been found by (Buckley, 2011):

- A well formalized capital movements theory (Iversen, 1935);
- Studies on the factors that influence foreign ownership location (Southard, 1931: Marshall et al., 1936; Barlow, 1953; Dunning, 1958);
- Industries internationalization required a modification to trade neoclassical theories (Williams, 1929); and
- To embrace the entrepreneurship and business competence role, Lund (1944) has extended the international capital movements theory. He considered the entrepreneurial ideas and financial capital combination as an international wandering combination.

These activities explain the important role that foreign investments could play in extending and improving the local economy. Foreign investments in local markets lead them to keep compete to inter the global area.

Sethi et al. (2003) pointed out that the foreign ownership has been explained in literature by these theories. The earliest explanation for foreign ownership was by the capital movements theory (Iversen, 1935), which viewed foreign ownership as a part of portfolio investments (Aliber, 1971). Three distinct theories have been found to be the logical intersection for the foreign ownership theory, which are international capital markets theory, international firm theory, and international trade theory (Casson, 1985).

Early studies on MNCs from emerging economies emphasized differences between emerging multinational companies and the more established ones, such as proprietary advantages lack, late comer status, weaker institutions and etc. (Kumar and McLeod, 1981; Lall, 1983; Wells and Louis, 1983). However, these studies considered that theories that explained the foreign ownership and firms international activities, such as the international product lifecycle model (Vernon, 1966), internationalization stages model (Johanson and Vahlne, 1977), and the ownership internalization framework (Dunning, 1980, 1988) remain useful. Bae and Jenong (2007) and Anandarjan and Hasan (2010) concluded a positive impact for foreign ownership on the value relevance of the earnings.

Jordan, like other countries, tries to increase the foreign investment share in its local economy which needs to employ relevant information conducted from the financial reports that could reflect the market performance. Since the current study examines the impact of this factor on the value relevance of earnings, book value, and cash flows, it is clear that foreign ownership theory is relevant to be adopted in this study.

2.9.4. Trading volume theory

Most trading volume theories asserted that investors have different belief revisions that caused trading volume (Barron, 1995). Two basic assumptions are included in this theory, which are: (1) market agents revise their prices in a customary and distinctive manner; and (2) potential trading partners are randomly encountered. In the literature, trading volume theoretical treatment arises in three settings about its relation to the bid and ask prices, price changes, and information (Karpoff, 1986). It is found that trading volume is negatively related to the bid and ask prices (Cohen et al., 1979), positively related to the price change (Clark, 1973; Epps and Epps, 1976; Tauchen and Pitts, 1983), or noisily related to price change (Pfleiderer, 1984).

Karpoff model (1986) has been used to investigate how information affects trading volume. Trading volume increases with the occurring of informational events and increasing the share number and these results, according to Karpoff (1986), are consistent with many empirical evidences on the price changes to trading volume relationship.

When any single investor received unique information, the value of this information will be negated because the market price adjusts to reveal all information in the economy. This suggests that trading volume will depend on opinion differences even when investors received different information (Varian, 1985). This model has drawbacks, which are that while trading volume increases, prices decrease (Karpoff, 1986), and aggregate information is not fully revealed by the market price (Pfleiderer, 1984). This is supported by Dontoh et al. (2004) and Liu and Liu (2007) who examined the impact of trading volume on the value relevance of the accounting information.

Since higher percentage of firm's shares may indicate a more active market, firm's tradable shares might explain the variance in the value relevance of accounting information in different stock markets (Chen et al., 2001). Whereas share price has the ability to fully reflect accounting information, there is a need to examine the impact of the total number of shares traded on the value relevance of accounting information for ASE companies.

While the current study tries to examine the influence of trading volume on the value relevance of the accounting information, the trading volume theory is found to have a close relationship with the accounting information, and thus is embedded in this study.

2.9.5. Litigation cost hypothesis

Since timeliness is the important characteristic for the information to be relevant (Obidat, 2007) and an essential element for adequate disclosure (Debreceny et al., 2002), releasing information just in time can reduce the probability of litigations, which in turn minimizes the litigation cost (Dyer and McHugh, 1975; Givoly and Palmon, 1982; Debreceny et al., 2002). This leads to alleviating the asymmetric information and enhancing the value relevance of accounting information.

Healy and Palepu (2001) pointed out that litigation cost hypothesis explains the impact of the shareholders on the disclosure decisions. They found that this impact can be in two trends. The first is that shareholders have the right to sue managers for the insufficient or late disclosure. The second is that litigations will reduce the level of disclosing forecasting information because managers will be penalized for their incorrect prediction (irrelevant information). This will influence the level of information that is revealed to firm shareholders and other firm stakeholders.

Accordingly, firm managers will be motivated by the litigations absence to choose the suitable time to disclose firm news (good or bad) (Al Arussi et al., 2009). To reduce the litigation cost, managers will pre-disclose information if they have bad earnings (Skinner, 1994; Healy and Palepu, 2001). Managers also attempt to avoid any lawsuit, therefore they try to clarify any misunderstanding by disclosing more information at a timely basis (Al Arussi et al., 2009). In turn, this will improve the value relevance of the accounting information.

From the aforementioned discussion, litigation cost plays an important role in improving the value relevance of the accounting information. Therefore, since the litigation cost hypothesis is important to explain the impact of the financial disclosure time on the value relevance of the accounting information, this approach is adopted in this study.

2.9.6. Agency theory

Agency theory explains providing costly information to partners in cooperative situations (Fleisher, 1991). This theory argues that under incomplete information and uncertainty conditions, agency problems arise (Eisenhardt, 1989). Disclosing financial data is essential for the capital market efficiency and fairness, which is the belief that all investors must have the same access to the relevant information (Benston, 1973). Therefore, a sufficient information has to be disclosed by the managers as a way to reduce the agency gap and to strengthen the market (Richardson and Welker, 2001; Debreceny et al., 2002).

Management, whose responsibility is preparing FS, has more information than investors about firm’s activities and has an incentive to misrepresent this information which may influence the firm’s share price. This leads to an information asymmetry which will negatively affect the value relevance of the accounting information and create agency problem (Holthausen and Watts, 2001). Information asymmetry (if it exists) can play a major role in expanding the gap between the managers and the other interested parties in addition to affecting markets in a long term (Weil, 2002). Healy and Palepu (2001) argue that information asymmetry and agency conflicts between managers and investors increased the demand for financial reporting and disclosure.

Due to the agency problem, differences in valuation may be involved according to Okuda et al. (2010) who found that according to agency hypotheses, it is important to provide separate financial values. Based on interest-conflict, agency problems could play an important role in firm valuation. Therefore, since the agency theory has a strong relation with the financial disclosure level and the relevant information, it is adopted in this study.

2.9.7. Shareholders theory

Shareholder theory involves using the shareholder rights claims to excuse violation of others' rights (Freeman et al., 2004). When making business decisions, still the best framework to balance the various stakeholders competing interest is provided by shareholder theory (Danielson et al., 2008). While the company according to the stakeholder theory should be managed as a social institution that provides current and future benefits to stakeholders (DesJardins and McCall, 2005), the companies' managers' primary duty has been defined by the shareholders theory as the shareholders wealth maximization (Friedman, 1962).

Most of financial economists have accepted the shareholders wealth maximization as a suitable objective for making financial decision. Since the shareholders theorists are concerned by the asymmetric information between the agent and principal (Carrillo, 2007), shareholders have the rights to know how their investments are used, and they need to be sure that their equity is not subjected to any misuse by the managers. So to alleviate the problem, many actions such as increasing disclosed information or establishing monitoring mechanisms have to be taken (Xiao et al., 2004; Marston and Polei, 2004; Al Arussi et al., 2009).

Shareholders theorist followed the statement that business social responsibility is to increase business, and the main companies' goal is considering that shareholders interest is in the increase in their shares value. This concept includes that company's directors and executives will be as agents for the shareholders, and they must use companies' resources for the benefits of their principal. Further, they would pursue their own benefits (Carrillo, 2007).

However, by controlling the company, shareholders can directly or indirectly affect the managers' decisions (Deegan, 2002; Al Arussi, 2008). This will enforce the managers to follow the shareholders' demands (Ullmann, 1985) and disclose the relevant information that they need. Although managers are directed by the shareholder theory to maximize shareholders wealth, they face incentives (formal and informal) to increase companies' share price. A company's share price might diverge from its intrinsic value, which can occur even in the efficient market due to the information that has been instantaneously and continuously communicated to the markets (Danielson et al., 2008).

As mentioned in section 2.5.1, managers try to increase shareholders number in order to increase share values (Amihud et al., 1999), and it is clear that the extent in companies' shareholders is related to the relevant information disclosed by these companies, therefore the shareholders theory is suited to be adopted in this study.

2.9.8. Capital market structure theory

In stock market, firms with internal or external funds may maximize their value by adjusting their capital structure to enhance their position in the market. Efficient market has been defined as the one in which share prices can fully reflect all available information (Fama, 1970, 1991).

Capital structure differences can reflect the differences in the growth opportunities importance (Ahmed and Hisham, 2009). These opportunities (reflected by accounting information) will affect the firm value. Growth opportunities are high in main stock board compared with second board because the public eye is more focused toward them (Abdul Samad, 2002). [24] This is because these companies are likely to disclose more relevant information to capture more investment opportunities and enhance their profitability (Al Arussi et al., 2009). Literature provides evidences that more profitable firm might have more debt to insure firm value and control managerial behavior (Ahmed and Hisham, 2009).

Literature has explained the capital structure (types, costs and time) by many theories, such as agency theory, pecking order theory, market timing theory and tradeoff theory (Huang and Ritter, 2004, 2009; Ahmed and Hisham, 2009). The firm with higher leverage (debt financing) will increase agency cost of debt (Ahmed and Hisham, 2009),

[24] According to JSC requirements, making profit for at least two years out of the last three years allows the company to transfer from second board to main board (JSC, 2010). Please refer to Appendix 2.

and make its investments at risk (Myers et al., 1998). It is important to note that capital structure formation does not necessarily control the agency cost. Agency theory predicts that growth firm should have less debt. When firms make profitable investments, it will have less need to discipline that debt provides (Ahmed and Hisham, 2009). Finally, reducing agency costs and improving firm disclosure lead the firm to attain its profitability.

The pecking order theory states that external funds and external equity are more expensive than internal funds and external debt respectively. Therefore, securities issues must be rare and have material influence on firms' capital structure with insufficient internal funds. According to the market timing theory, securities issues can play an important role in capital structure determination, while in tradeoff theory, issuing securities assist firms to adjust toward their target leverage (Leary and Roberts, 2004).

Since the relevant accounting information plays a real role in evaluating the capital structure and then the firm value, this is of interest to indicate company's position in the market and its financial leverage (as a debt compared with its assets). To test the influence of listing status and leverage on the value relevance of earnings, book value, and cash flows, it is clear that linking the capital structure theory with the valuation theory was relevant to be embedded in this study.

2.9.9. Firm life cycle theory

According to firm life cycle theory, Mueller (1972) states that:

> “Age is a better explanatory variable than size in determining growth. In fact the latter loses all of its explanatory power when age is included with it in an equation…If these results also apply to firms, they indicate that young firms grow faster than old ones regardless of their size, and that large and small firms of the same age have the same growth rate” (pg: 210).

Since firms would try to distinguish themselves from others with regard to quality and performance (Morris, 1987; Watts and Zimmerman, 1986; Skinner, 1994; Al Arussi et al., 2009), economic literature, as mentioned before, divided the company’s age period into sub-periods depending on firms’ uncertainty degree, assets in place and investment opportunities (Mueller, 1972; Myers, 1977; Anthony and Ramesh, 1992).

Firm life cycle theory was developed by Mueller (1972) and Grabowski and Mueller (1975) to explain the share value in many firm life cycle. There are many important implications for the life cycle theory regarding the efficiency of the capital market operation. Firms are likely to issue new equity when it is younger or having high investment opportunities relative to cash flows (Grabowski and Mueller, 1975). Young firms will find a lower demand for their new issued shares because shareholders will cut back on purchasing these shares to compensate the reduction in dividend income (Mueller, 1972). According to this theory, young firms or companies invest at roughly the levels that maximize present values, while mature firms re-invest too large a percentage of their internal funds (Grabowski and Mueller, 1975).

Since the firm life cycle theory has been adopted by many value relevance studies (Anthony and Ramesh, 1992; Black, 1998; Aharony et al., 2006), it is clear that the concept of this theory has a close relationship with the value relevance of accounting information, hence, it is adopted in this study.

2.9.10. Business entity approach

Economic theories have widely studied the economic activities of the firm (Heilbroner and Thurow, 1998; Heilbroner, 1999). Firms' economic activities types have been studied by many theoretical approaches. Business entity approach is one of these approaches. This approach was used in classifying firms based on their economic activities types (Concept and Standards Research Study Committee (CSRSC), 1965; Holmes and Stevens, 2004; Oliveira et al., 2007a, 2007b; Office for National Statistics (ONS) in U.K., 2009).

A business entity is an enterprise unit (formal or informal) that is organized to achieve specified express or implied purposes. Profit objectives, goods and services acquisition, transferring these acquisitions and delivering the resulted outputs to the market are the usual activities of an entity. The business entity can be defined as economic, social, legal, political, professional, or other definitions. From the accounting view point, the business entity can be defined as an area of economic interest to a specified parties or groups. Entity's accounting includes accumulating information about this area and communicating this information to the interested parties (CSRSC, 1965).

In most stock markets, the companies have been classified based on the economic activity structure. This classification includes sector and products. This classification can be sub-classified to cover the different economic activities such as distribution, transport, and services (ONS, 2009). Within a country, classifying companies according to their economic activities form an important step in building tools to obtain information that can assist in performing the economic activities statistical analyses (Oliveira et al., 2007a, 2007b). Each country has its own classification system (Holmes and Stevens, 2004).

While the entity concept, according to business entity approach, is essential to accounting and the financial reports are interested in business entities and their activities, the entity concept's role in accounting is to distinguish the information that is relevant and the information that is not (CSRSC, 1965). From the above discussion, it is clear that the business entity approach is related to the relevant information of the financial reports, thus it is adopted in this study.

2.9.11. Firm size theory

Theories of the firm size can be categorized as technological, organizational and institutional depending on whether they focus on the production function, the control process or the economic environment influences (Kumar et al., 2001; Kaen and Baumann, 2003). Technological theories related the firm size and profitability to the physical capital and economies of scale and scope (Kaen and Baumann, 2003).

Organizational theories link both firm size and profitability together with organizational transaction costs (Alchian and Demsetz, 1972; Williamson, 1975, 1985), agency costs (Jensen and Meckling, 1976; Klein et al., 1978), critical resource (Grossman and Hart, 1986; Hart, 1995; Rajan and Zingales, 2001), and competency (Foss, 1993; Niman, 2002).

Institutional theories link the firm size to legal systems, anti-trust regulation, patent protection, market size, and the financial markets development (Ringleb and Wiggins, 1990; Rajan and Zingales, 1998a; Kumar et al., 2001; Kaen and Baumann, 2003).

Critical resource approach link both the firm size and profitability together where increasing firm size leads to lowering its profits. However, under a firm critical resource approach, small firms are not necessarily being less profitable than large firms within a given institutional environment (Rajan and Zingales, 1998b, 2001; Holmstrom, 1999; Kumar et al., 2001; Kaen and Baumann, 2003). Since the firm value equal to the value of assets in place (Jorion and Telmor, 2001) and a direct relationship has been found between firm’s total asset sizes and its profitability which has been used as firm value determinant (Kantudu, 2008), this approach is relevant to be adopted in this study.

2.10. Conceptual framework

Based on the previous sections, eight selected institutional factors categorized in four groups including economic factors (foreign ownership and trading volume), corporate governance (financial disclosure time and financial disclosure level), company’s characteristics (shareholders number, listing status and company's age) and type of industry with three accounting variables namely earnings, book value of equity and cash flows from operation are linked to three different proxies for share price after controlling two variables which are firm size and leverage. All these are diagramed into a framework as illustrate in Figure 2.1.

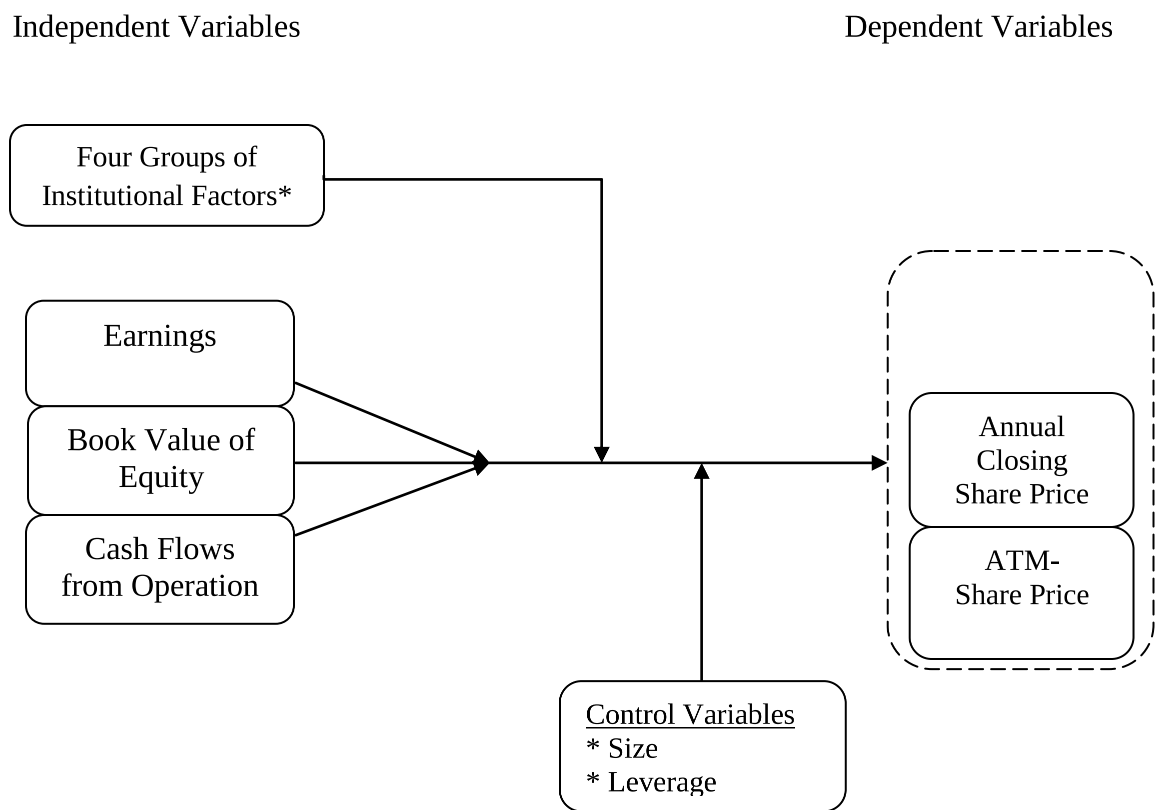

Figure 2.1
Conceptual Framework

Note:
* Four groups of institutional factors:
Economic factors: Foreign ownership and trading volume.
Corporate governance: Financial disclosure time and financial disclosure level.
Company's characteristics: Shareholders number, listing status and company's age.
Type of industry: Services and industrial companies.

According to this framework, the relationship between earnings, book value, and cash flows and market value (share price in three proxies) is formulated in Hypothesis (1). This relationship influenced by the four institutional factors is formulated in Hypotheses (2, 3, 4 and 5), while the comparison among the three share price proxies is formulated in Hypothesis (6). These hypotheses have been tested with and without controlling company's size and leverage.

2.11. Summary

In this chapter, the prior studies on the value relevance of earnings, book value, and cash flows in Jordan and other different countries have been reviewed. The influence of the four groups of institutional factors on the value relevance of these accounting variables has been discussed as referred in literature. Theories that are related to the value relevance of the accounting information and the impact of the selected institutional factors on this value relevance have been reviewed. Study's conceptual framework was diagramed. This framework is discussed in the next chapter.