



# Reporting Quality of Financial Information Based on Behavioural and Value Accounting

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## ABSTRACT

The purpose of this research is to provide a model for reporting quality of financial information based on behavioural and value accounting of listed companies in Tehran Stock Exchange which is based on Structural Equation Modelling. This research in terms of applied purpose is applied research and in terms of data collection method is post-semi experimental research in the field of proofing accounting research with deductive- inductive approach. The statistical population of this is including the sample of 128 listed companies in the Tehran Stock Exchange between 2007 and 2017. The behavioural characteristics of managers (hidden variables) is measured by observable variables of myopia, opportunistic behaviour and over confidence of managers and the value content of accounting information (hidden variable) is evaluated by the observable variables of relevance of profit and relevance of book value. And reporting quality of financial information is also investigated based on the scores accrued to each company and the announcement published by the Tehran Stock Exchange based on the companies' rating in terms of the quality of reporting and proper notification. After insuring the acceptable fitness of the measurement pattern and the structure of research in both approaches; Structural Equations Modelling and regression, the results indicate that there is a significant negative relationship between the behavioural characteristics of managers and the reporting quality financial information. Also, there is a positive and significant relationship between value content of accounting information and reporting quality of financial information.

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## 1 Introduction

One of the main concerns of managers is the investors' true understanding regarding the company's future horizons and attracts the confidence of the capital market through providing financial statements and clear and high quality of financial information. Financial statements are one of the main sources of corporate information that make the market more transparent. Transparent information can

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be considered as one of the tools for accountability of managers, the greater the dissemination of information in the economic environment increases the ability to make informed decisions, as well as responsibility of responding to how acquisition and use resources. Therefore, one of the requirements of economic growth and development is the access of stakeholders to transparent and high-quality information [7]. Based on representation theory, managers as shareholder agents may act in a way or take decisions that are not necessarily in line with maximizing shareholder wealth. According to this theory, an adequate control or monitoring mechanism should be created to protect shareholders from conflicts of interest. The issue of transparency of financial statements and the reporting quality of information presented therein have been considered as a practical [19]. Disclosed high quality information as part of a controlling mechanism helps investors to disciplining the managers of capital acceptor firms, and encourages managers to take steps in line with shareholders' interests and improving the company performance [5]. Public disclosure and quality of information provides the excellent monitoring conditions for performance and, as a result, improved the performance [19]. Birnberg [3] are also believe that reliable and high quality accounting information facilitates the shareholders controlling and smooth the effective enforcement of shareholders' interest protection. Therefore, the recognition of effective psychological factors on the mentality of managers and applying of them in achieving quality level information can create maximum trust in the market for the company, in order not to lose the opportunity of profitability, and also attract stakeholders' satisfaction by providing high quality information [19]. The main object of accounting is providing information to decision-makers, despite the use of accounting information in practice of unusual events and unpredictable results it have attracted the attention of many researchers, and creates the new school in accounting research which called Accounting Behavioural Research [39].

Behavioural research in accounting was first introduced in the 1960s and expanded in the 1970s with research by Ashton and Lee. The development of psychological discussions and behavioural decision making has been a major contributor to the emergence of behavioural research in accounting [3]. This research, in addition to the field of technical accounting, examines the psychology and social science fields as well. Behavioural accounting as one of the accounting trends refers to the relation between the human behaviour and accounting system [36] and it's classified into four areas of individuals, groups, organizations and environmental conditions. According to this category of research in the field of individuals, that emphasis on the personal characteristics of unique factor or his response to specific data sets or accounting drivers. Group research investigates the behaviour of a limited number of individuals according to the group members influence from other's behaviour. Research in the field of organization, with the definition of the organization as an independent entity, studies the structural features such as the complexity of tasks or the design of the accounting system and environmental conditions researches investigate the social role of accounting and its interaction between accounting and society [3]. The accounting system and financial reporting does not provide all the information needed to decision-making. Choosing the type of information, how influencing to the information and the impact of human behaviour on information and the relationship between human behaviour and the design, implementation and useful use of the accounting information system are the topics those discussed in behavioural accounting. In this regard, the information should be useful and relevant and have the potential to affect the decisions of information users. Whatever the value contends of is grater its usage of them in making the decision will be more and then will result to making optimal decisions [37]. It has always been a question of how important accounting measures are? And why accounting information should have value content? Given that, financial reporting by companies plays

an important role in predicting the future, and accounting information when has a value content that investors recognize then as relate in their assessments of the company and be reliable reflects the shares price [2]. The topics presented are show that the reporting quality of financial information in marketplace is based on value content of accounting information and behavioural impact. Based on this, expected that information based on behavioural accounting and value-based information increases the reporting quality of financial information and will raise the trust of users of financial information reported by companies in the capital market. Therefore, it is very important to recognize the important and effective factors of behaviour and value on the reporting quality of financial information. Today, the role of the attitudes and internal factors of the individuals and the psychology of financial markets has been considered in financial studies, despite the fact that numerous studies in the field of behaviour have been done, but it seems we faces the lack of applied studies on the application Theories of behavioural and value accounting and its impact on the reporting quality of financial information in the capital markets of countries in general and in Iran in particular. Accordingly, present study attempts to introduce the behavioural and value theories in accounting, increases the understanding of the abnormal behaviour of the market and explains one of the important issues of accounting. Therefore, with regard to the above, the main issue of the researcher in this study is to provide a model for the reporting quality of financial accounting based on behavioural and value accounting.

## 2 Literature Review

In this section we review some important and related works.

### 2.1 Reporting quality

In terms of stakeholder theory, information reporting is influenced by the power of the company's internal and external stakeholders. Different stakeholders influence the goals and operations of the company, and the company, in order to meet the information needs of the stakeholders, discloses information in various dimensions and levels. In terms of the legitimacy theory, two categories of factors affect the level of information reporting; characteristics of corporate and corporate governance. The first category represents the factors that indicate the amount of social pressure to provide information. Based on the legitimacy theory, industrial corporations with desired characteristics in terms of profitability, liquidity, and financial leverage are more popular and, as a result, demand for information and transparency improvements will increases. The second category expresses the factors which reflect the response rate of the company to the stakeholder demand. These factors include company's corporate governance and ownership structure. It is expected that in companies having good corporate governance mechanisms and greater ownership dispersion, disclosure of more information will be considered in the interest of stakeholders [35].

Theoretical research conducted by Dess and Picken [11] shows that better reporting of financial information decreases the investor prediction risk about decision making parameters, which means that investors consider a greater risk for asset with little information in compared to an asset with more information. This perspective can be shown by concept of information symmetry. On the other hand, it is expected that the corporate performance effects on reporting quality of financial and disclosure of accounting information. Since 1961, there has been raised many cases of conflict between the interests of the groups and how companies are confronted with such contradictions by economists. These cases are generally well known as representation. The core of the representation theory is based on the

assumption that executives as shareholder representatives may act in the way or take decisions that are not necessarily in order to be maximizing shareholder wealth. The issue of transparency of financial reporting has been considered as a practical way of controlling these [16].

## 2.2 Behavioral Accounting

In Western economic literature, the existential nature of humans is defined as a rational being that decides under fully transparent conditions. This complete creature, often referred as the economic man, which always successful in the process of optimizing the interests of the prosperous, and collects all the information that effects on their alternative and decisions, and finally creates an ideal situation that certainly is not accessible in the real world of many decision makers [16]. Most of behavioural research in the field of individuals has examined the individual's understanding manner, quality of judgment, and decision making. Judgment is comparing one stimulus to another one, or evaluating a stimulus in relation to a standard. A decision is the choice of a stimulus (strategy, action) among a set of stimulus. We distinguish between two theoretical perspectives in accounting research in the subject of judgment and decision making [11].

The theory of behavioural decision making is based on decision making theory of economics and statistics, and uses optimization models such as bias theorem and regression analysis as a benchmark for assessing the manner and quality of decisions and judgment of individuals in a typical way. Investigating the decision-making and judgmental function is related to identifying diverse sources (such as the ability to recognize, knowledge, and motivate) in manner and quality of individual's decision-making and judgment [12, 20, 23]. Behavioural research in accounting studies that how people behave and respond to specific information. The study of the behaviour of accountants or those whose behaviour is affected by accounting functions and accounting reports are included in the field of behavioural research in accounting [14]. In general, people have different behavioural characteristics. Managers as a part of the accounting system are affected by their own behavioural and individual characteristics. Therefore, how these characteristics can affect the performance of managers, their level of accountability, and the responsibility of managers to report on financial information and the quality of disclosure and disclosure of information. Several studies have been done and after 1960s this was made possible to identify the components of behavioural patterns of managers in accounting. Myopia is one of the behavioural characteristics of managers, first introduced by Theodore Levitt in the 1960s as marketing myopia. Myopia in marketing was initially defined as myopia of the company or a limitation of attention to sub-trade activities. The accounting area has introduced myopia as short-term financial activities, in other words, short-sightedness [25, 26], it's expected that managers who are focused on short-term goals, in a short period of time will achieve quick results and efficiency but it is temporary, and Of course, in the long term their performance will not be desirable and satisfactory and, in other words, managers will be engaged myopia [32, 33, 35, 37], The researches done about by myopia from 1990s to present, including the researches by [7, 28, 40, 41], showed that if market participants correctly perceived this probability and realized that it would be possible for companies that reduces their marketing and research and development costs, the quality of the reports of financial information be lower, systematically the assess the performance of these types of companies lower than other profitable companies. On the other hand, given the delayed reaction of the market, it can be expected that if marketers do not fully and accurately identify the balance between the marketing and research and development costs with the reported profits, or do not understand long-term effects of marketing and research and development, there will be a systematic negative reform in the assessment

of myopia firms in the future [14]. Being opportunistic of deal with affiliated entities is one of the factors that especially in Asian countries which, where business relations are so easy that it facilitates the makes transactions with affiliated entities, it reduces the value of capital markets. Although all transactions with affiliated entities are not opportunistic, the prevailing attitude is that they are factors that affect risk, and investors are very important before investing. In existing theories, there are two attitudes towards dealing with affiliated individuals, which include the attitude of opportunistic behaviour (the theory of conflict of interests) and the attitude of effective behaviour (the hypothesis of effective transactions) that the existence or absence of any of these behaviours is a function of corporate governance, the rules protect the investors and, in general, the business environment of the countries [42]. According to Standard No 12 of Iran, a transaction with an affiliate is defined as follows: The transfer of resources, services or obligations between affiliated entities, regardless of the asking for payment or not. In recent financial scandals, the deal with affiliated entities has been one of the concern centres, so that the purposeful use of these transactions and their lack of disclosure or insufficient disclosure is a factor in the fall of companies. In many cases, transactions with affiliated entities are inevitable and beneficial and are repeated in the company's business cycle, but in certain circumstances, it allows to major shareholders or managers to secure their own personal interest at the cost of other shareholders. In existing theories, there is an attitude of opportunistic behaviour to dealing with affiliated individuals who support this attitude of theory of conflict of interest.

The disclosure index is one of the indicators to protect the interests of investors. Tomak [41] examined the incentives for transactions with affiliated entities on the Italian stock exchange. His goal was to identify the underlying reasons for dealing with affiliates and to be effective or opportunistic in these transactions. According to ownership structure of Italian companies, potential use of transactions with affiliated entities by major shareholders was assessed for the loss of other shareholders in the acquisition of corporate resources. Evidence suggests opportunistic behaviour in these transactions, and there is a meaningful relationship between the amount of these transactions or the variables that influence the incentives and costs of property seizure. Different factors work together to make the investment issue one of the most important tasks of the top managers of an organization. A mistake in this issue will cost a lot to company. If the company invests a lot of money, then its costs will increase, which will cause losses and even bankruptcy in unfavourable economic conditions. In recent years, some studies have been carried out which acknowledge that managers have not always behaved rationally and that managers who have over confidence are often optimistic about their decisions and their results, especially in investment decisions Kahneman and Tversky [29] and under the influence of over confidence and over optimism, may make irrational decisions that have an important impact on the company's financial activities [1]. Research has shown that behavioural factors such as the over confidence of top managers are influence on inefficiencies investment and can lead to waste of internal resources [13, 22].

According to Heaton [21], managers with over confidence may invest the company's internal cash flow in projects with a negative net present value, which results in waste of internal resources of company and the company's financial turmoil. Corporate financial turmoil does not always lead to bankruptcy, but without exception, all companies face financial turmoil before bankruptcy. At macro level, corporate financial turmoil reduces GDP, increases unemployment, waste the country's resources, and so on. At micro level, stakeholders and business entities, such as shareholders, potential investors, creditors, managers, employees, suppliers of raw materials and customers, will suffer losses, and significant losses can be incurred for this group. Determining the reason or reasons for bankruptcy and

financial problems is not easy. In many cases, multiple causes lead to a phenomenon of bankruptcy. Bushman et al. [5] and Tomak [41] believe that the first and most important reason for corporate bankruptcy is their mismanagement. Managers of any organization whose decisions influence the success and life of the organization are also influenced by internal and personal factors whose behaviour is in the context of behavioural financial discussions. In this case, one of the most serious cases that influence investment decisions of managers of the organization is the issue of managers over confidence [15]. All managers, as a manager, do not tract the same manners, and like other people of community, they have individual, talents, motives, hobbies differences and have their own specific desires, as well they have different attitudes, knowledge and value system. Although these differences may appear to be partial, they may lead to very different differences and very different behavioural outcomes when they pass through the cognitive processes of individuals. Such differences are mainly due to differences in the personality of each person.

A review of psychological studies shows that corporate managers are prone to arbitrary decisions in their decisions [38] and managers with over confidence may in their investment decisions act in a way which results to decrease the value of the company or increase the risk [22], since managers who have over confident are expose to exaggerating and overestimate their abilities and performance, but, on the other hand, they underestimate the likelihood of costly financial turmoil [27]. Frydman et al. [15], looking for answer to the question of whether over-confidence of management (management optimism) can describe our existing contradictions between theory and practice in corporate risk management, or not, they investigate the topics of over-confidence of management (management optimism) and company risk management. They used unique data on the status of company's derivative contracts, which allowed direct reviews of management responses to earnings and the loss of speculation due to market timing when using derivative contracts. In this paper, entitled "Over Confidence of Management and Risk Management," they concluded that managers increased their speculative activity after speculative cash flow, but their speculative activities do not decrease after losing speculation. Such an asymmetric self-confidence response relates to over- confidence, and the results indicate that management over-confidence, which affects some of the company's decisions, also affects company risk management decisions. Frydman et al. [15] in a research using the Measures of Managers over confidence by Mizik [35] and Lin, and Chen [32], examined the impact of managers over confidence on analysts' point of view. The results of the study showed that analysts are optimistic about the profits of companies with over-confidence managers.

Thus, the times that company's net profit predicts exceeds the actual amount is more than the times that the profit predicts less than the actual amount. Wunderlich et al. [42] have shown that the predicted profits by managers with over confidence are more optimistic than those predicted by other executives. Therefore, it can be expected that those companies that estimate optimistic future profits having mangers with over confidence. Heaton [21] also used managers' predicted profits as a measure of over confidence in managers. Managers of companies that predict profits more than realistic are known as overconfident managers. Because, if managers had overconfidence, they will evaluate their company's future more than realistic, and therefore the expected benefits may be more than reported [21]. Chowdhury [9] examined the influence of manager's overconfidence on analysts' point of view. The results of their research showed that analysts are optimistic about the profits of companies with overconfidence managers. Thus, the times that company's net profit exceeds the real amount is more than the number of times that the profit predicts less than the actual amount.

### 2.3 Value Accounting

The main purpose of the research carried out in the field of value accounting is to increase the awareness of users of financial statements about the qualitative characteristics of the relevance and reliability of accounting information reflected in the market value of the owners' equity [2]. The reporting quality of financial information can play an effective role in accounting main objectives in meet the information needs of investors in the capital market. In these circumstances, the relevance of the value of accounting information is one of the useful measures used to evaluate the usefulness of accounting information, which is the primary objective of financial reporting. Chaudhry [7] defined four approaches to study the relevance of accounting information value:

- Fundamental analysis attitude of the relevance of accounting information
- predictability attitude of the relevance of accounting information value
- Informational attitude of the relevance of accounting information value

Measuring attitude of the relevance of the value of accounting information [7]. Accounting information and figures are only relevant when investors consider them in their assessments of the company's value and reflect the stock price [6]. According to Barte et al. [2], the relevance of the value of accounting information is includes meaningful relationship between the value of accounting figures and the value of the stock market which measured by stock prices. Review of the research literature suggests that Miller [34], study provided a framework for redefining the relationship between financial statements and company value and also provided a framework for modelling this context. Andrew Hribar and Yang [23]with the study of the relevance of the value of accounting information in the Indonesian market, showed that both of accounting and book value were partly able to explain the changes in the stock price and have a relevant information value Graham [17]state that the relevance of accounting information is influenced by the ability to invest in valuable resources Huang et al. [24], by conducting studies on the value of information on companies listed in Sri Lankan's Stock Exchange showed that accounting information is reliable with sufficient evidence.

## 3 Research Methodology and Hypotheses

### 3.1 Methodology

This study in terms of purpose is applied research and, in terms of data collection method is Semi-experimental after-event research in the field of proof accounting research. In this research, the deductive method is used to study the theoretical foundations about the variables of study to calculate the values of the variables based on the appropriate methods, and then, in the inductive method, we investigate the significance of the relationship between the behavioral characteristics of managers and the value content of accounting information as independent variables and reporting quality financial information as a dependent variable. The statistical population of this study is the listed companies in the Tehran Stock Exchange between 2007 and 2016. The sample of the research is also companies that have the following characteristics:

- 1- In order to increase the comparability, their fiscal year ends should be at the end of March
- 2- Companies accepted date to the Stock Exchange should be before 2007 and they should be in Stock Exchange still end of the fiscal year of 2016.
- 3- The companied should not be part of investment companies or financial intermediaries.
- 4- The length of the interruption of trading in these companies should or exceed over than 6 months.

After applying the above limitations, 128 companies were selected as research sample. The

data of this study were extracted from compact discs of statistical and statistical archives of Tehran Stock Exchange Organization, Tehran Stock Exchange databases and other databases as well as Dana Sahm and Tadbir Pardaz software. The final analysis of the collected data was done using SPSS and AMOS software (version 23). In Structural Equation Modelling Analysis, structural equation model is a combination of measuring models (verifiable factor models) and structural models (path models). The distinction between measuring models and structural models plays an important role in the next steps in the process of structural equations modelling. In fact, if the measurement model shows a suitable fit of measures of hidden variable, fitting of the structural model will be more reliable. For this reason, the model's assurance of measurement is prior to the structural model test. Therefore, to test the research hypothesis using the structural equation approach, two steps: first must be ensured the acceptable fit of the model of measurement (behavioural characteristics of managers and the value of accounting information) and then the we have to investigate the fit of the structural model (the relationship between the behavioural characteristics of managers and the value of accounting information with the reporting quality financial information). To reject or accept of research hypothesis, we conduct the significance test of each of the standardized regression coefficients of structural model (t-test). In order to achieve the research objectives, based on theoretical research and empirical studies, the following hypotheses are developed and tested:

H1: There is a significant relationship between the behavioural characteristics of managers with reporting quality of financial information.

H2: There is a significant relationship between the content value of the accounting information and the reporting quality of financial information.

### 3.2 Conceptual model of research

The conceptual framework of model of present study is given in Fig. 1 which is drawn based on the structural equation modelling approach. In this model, according to the statistical analysis, the structural equations of the circle or ellipse form represent the hidden variable of financial behaviour of cognitive psychological managers that has several structures (opportunistic behaviour, myopia, and over-confidence). Rectangle shape or square is also a representation of observable variables.

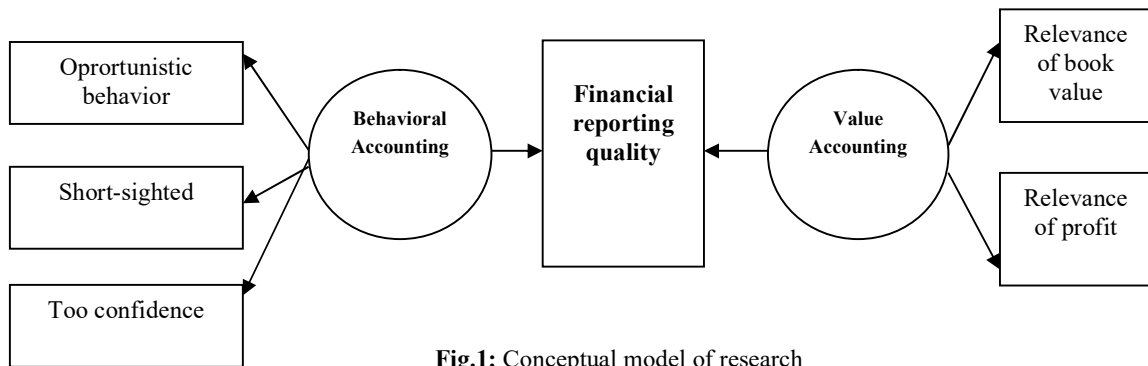


Fig.1: Conceptual model of research

### 3.3 Research variables

The variables studied in this study are as follows:



### Reporting quality of financial information:

One of the indicators of reporting quality of financial is disclosure quality of accounting information. The disclosure quality in the present research is the scores accrued to each company that is issued by the Tehran Stock Exchange and through the company's rating notices in terms of the quality of disclosure and information. Publisher rating points, are calculated based on the time of providing the information about prediction of earnings per share, unaudited interim financial statements of 3, 6 and 9 months, Auditor's opinion on the forecast of income for each initial and six months, Auditor's opinion on 6-month interim financial statements, unaudited financial statements for the ended year and the difference between actual audited estimates and performance. In the case of failure to provide timely financial statements audited by the end of the year and the scheduling of shareholders' interest payments, negative points are considered for each day. (Stock Exchange Organization, 2007) The benefits and reasons for using this disclosure quality measure are as follows:

1- The company's disclosure quality scores are measured by the Tehran Stock Exchange and it's based on precise and objective indicators such as the timing of providing relevant information and the difference in estimates with actual results. Therefore, the criterion used is sufficiently objective and reliable.

2- Contrary to the research done on the disclosure quality in Tehran Stock Exchange, this criterion does not only focus on the amount of disclosure, but also considers the timeliness and reliability of the disclosure of information.

### Behaviour accounting:

**Management Myopia:** since expected that companies achieve significant financial success are acquiring the opportunity and resources to invest in long-term future assets. Therefore, companies that simultaneously report excessive expected returns and low marketing and R&D (research and development) costs are likely to be subject to myopia management (having short-sighting management). In order to identify and determine the myopia companies, it is first necessary to estimate the expected level of return on assets, marketing costs, and the cost of research and development for each company at any time. In this regard, in fellow of Birnberg [3] model equation 1 to 3 have been used:

1.  $ROA_{i,t} = \beta_0 + \beta_1 ROA_{i,t-1} + \epsilon_{1,t}$
2.  $MK_{tgit} = \beta_0 + \beta_1 MK_{tgi,t-1} + \epsilon_{1,t}$
3.  $R\&D_{i,t} = \beta_0 + \beta_1 R\&D_{i,t-1} + \epsilon_{1,t}$

In these equation,  $ROA_{it}$ ,  $MK_{tgit}$ ,  $R\&D_{it}$  are the return on assets (net profit divided by aggregate assets), the marketing cost and the cost of research and development for company  $i$  in the period  $t$ , respectively. Marketing costs and costs of research and development are extracted from disclosed explanatory notes of companies. Also, given that the number of available data for implementation of the research and development cost model was not sufficient, implementation of this model was not possible at the industry level. In order to extract the coefficients of the model and estimate the residuals, the profitability and marketing costs at the industry level and the R&D equation have been implemented across the entire company. After calculating the estimated values of return on assets, marketing costs, and the cost of research and development, using the above models, the predicted values obtained from the model were compared with the actual values. Then, with regard to the prediction error of the three models, the firms will be put in four main groups. Companies with a positive differ-

ence in expected return on assets with realities and negative differences in the marketing and R & D cost with realities are in Grf 1, the companies in Group 1 are considered to be myopia companies. In this group, despite the positive performance of the company and increased asset returns, marketing and research and development costs have declined.

**Opportunistic Behavior of Management:** In this study, to measure the variables of the managers' opportunistic behavior, in accordance with the Frydman et al. [15] indicator we used the total amount of transactions with affiliated entities disclosed in the notes accompanying the annual financial statements of the companies listed in Tehran stock Exchange divided by the total assets of the company's beginning period.

**Over Confidence of Management:** The criterion of measuring the over confidence of managers is calculated with differentiation of expected annual profit by management and real profit. If, during the studied period, the number of times that management expectations profits be more than the number of times that less than anticipated, management will have over confidence, and the variable of over confidence takes 1, otherwise it is considered as zero [12].

### Value accounting:

**The Relevance of the Book Value of Each Share.** In the present study, similar to most studies in the field of relevance of accounting information value Miller 's model [34] has been used [41]. The ability of the model in Iran was investigated and confirmed by Mehrani et al, in 2012. Olson's pattern is as follows:

$$MV_{it} = \beta_0 + \beta_1 BV_{it} + \beta_2 E_{it} + \epsilon_{it}$$

where in:  $MV_{it}$ : Market value of each share of the company  $i$  at the end of the month of providing financial statements  $t$ ;  $BV_{it}$ : is the book value of each share of the company  $i$  in the year  $t$ ;  $E_{it}$ : reported accounting profit for each share of  $i$  company in year  $t$ . In the above model, the coefficient  $\beta_1$  indicates the relevance of the book value.

**Relevance of Profit.** In the Olson model, the coefficient  $\beta_2$  represents the relevance of the benefit.

## 4 Analysis and Results

### 4.1 Descriptive Statistics

In order to better understand the research community, it is necessary to describe this data. The Table1 shows descriptive statistics of the variables used in the research, which include the survey of central indicators and dispersion, for a sample of 128 companies of the year of observation during the period from 2007 to 2017. The comparison of the mean of observations with their mean and its small difference indicates the normal distribution of observations.

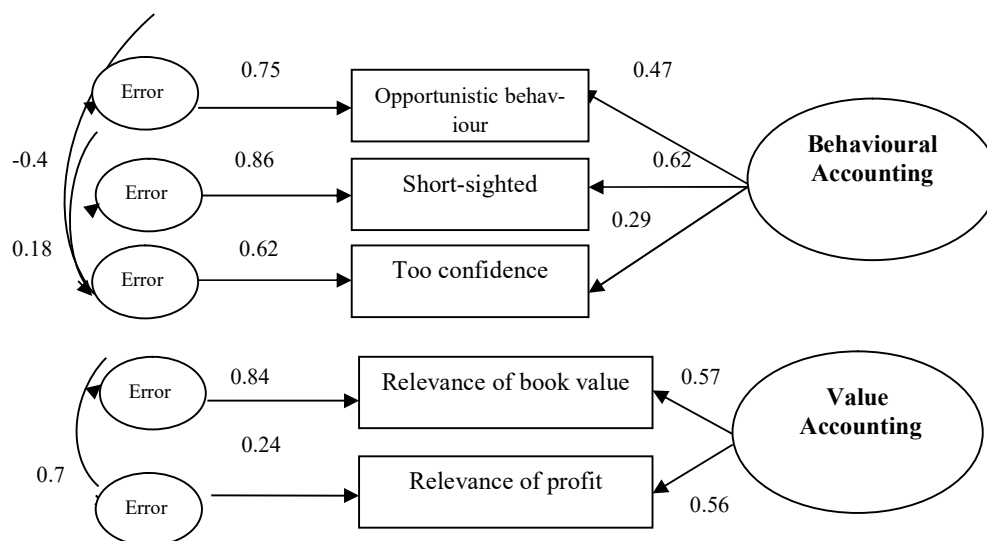
**Table 1:** descriptive statistics of the variables

Variable	Standard deviation	Maximum	Minimum	Middle	Average	Number of observations
Financial reporting quality	23.5	91	16	50	49	1280
Short-sighted	0.2804	2.38	-4.9	0.0001	0.075	1280
Opportunistic behaviour	0.933	31.08	-7.02	4.76	4.89	1280
Too confidence	0.195	1.000	0.000	0.62	0.54	1280
Earnings per share	198	9136	-1728	549	1087	1280
Market value of each share	7328.11	64505	397	3564	6457.25	1280
Book value of each share	4333	15173	-6590.82	2108	2907.7	1280

As shown in Fig. 1, the positive mean of the reporting quality of financial information in listed companies of Tehran Stock Exchange indicates that the level of reporting quality of financial information is increasing. Given the necessity of performing preliminary tests of the data, on the data obtained and calculated for the pre-model tests have been conducted which are presented in follow. First, a summary of the results and their analysis is presented in this section.

#### 4.2 Validation of measurement model

After determining the conceptual model of research and data collection, the most important stage of modelling is validation of the measurement model. In this section, the researcher seeks to answer the question of whether the conceptual model represents research data? The validity of a model is examined using the fitting criterion. Therefore, at this stage of statistical analysis, it is expected that the fitting of the data to the conceptual model of the research is acceptable on the basis of scientific criteria. Fig 2 and table 2, respectively, shows a modified model for measuring the behavioural characteristics of managers and the value of accounting information and related fitness indicators. Necessary fitness criteria presented in table 2 state that behavioural accounting and value accounting systems have enough credit to test the research hypotheses.



**Fig.2:** Modified accounting model for behavioural and value

#### 4.3 Structural model validation

In evaluating step of structural model, while studying the relationships between hidden variables, the load factors of the model are measured and the structural model is re-estimated [38]. In such a way that factor loads and measurement errors in the model of measurement and structural model, freedom are considered and estimated. If the load values in the two models have a clear difference, this confirms the existence of a helpless situation in the interpretation. The advantage of this method is that the fitting of the model of measurement can be used as a basis for comparison, and the benchmarking of the fitness of the structural model. This view is widely used in modelling structural equations [30]. In the structural model, the research hypotheses are tested. The fitting index of the structural model

for the research hypothesis test presented in Table 3, indicates the acceptable fit of the structural model and the non-exposure to the distressed phenomenon in the interpretation. After ensuring that the model is fit and the absence of a significant difference between the criteria for fitting in the measurement and structural patterns of the research have been checked, it is time to examine the research hypotheses and interpret the estimated coefficients between the hidden variables and the observed variables, which are shown in Table 4, the results of the test of research hypotheses are presented with their related statistics.

**Table 2:** necessary fitness criteria for a modified behavioural and value

Necessary fitness criteria	Fitness accepted	Modified model	Abbreviation	Index name
Absolute fit indices	More than 90%	0.933	GFI	Necessary index of fit
	More than 90%	0.923	AGFI	Necessary correctional index
Adaptive fit indices	More than 90%	1.011	NNFI	Unmatched fit index
	More than 90%	1.073	NFI	Normal fit index
	More than 90%	0.948	CFI	Adaptive fit index
	More than 90%	0.614	IFI	Incremental fit index
Economic fit index	More than 90%	0.038	PNFI	Normalized fitting index
	Less than 10%	0.029	RMSEA	Root Mean Squares Estimated Error
	Less than 3	0.644	CMIN/df	Chi-square normalized to degree of freedom
Other fitness indicators	More than 200	1429	Hoelter	Holder index (0.05)

**Table 3:** Necessary fitness criteria for the structural model

Fitness accepted	Modified model	Abbreviation	Index name	Necessary fitness criteria
More than 90%	0.933	GFI	Necessary index of fit	Absolute fit indices
More than 90%	0.923	AGFI	Necessary correctional index	
More than 90%	1.011	NNFI	Unmatched fit index	Adaptive fit indices
More than 90%	1.073	NFI	Normal fit index	
More than 90%	0.948	CFI	Adaptive fit index	
More than 90%	0.614	IFI	Incremental fit index	
More than 90%	0.038	PNFI	Normalized fitting index	Economic fit index
Less than 10%	0.029	RMSEA	Root Mean Squares Estimated Error	
Less than 3	0.616	CMIN/df	Chi-square normalized to degree of freedom	
More than 200	1701	Hoelter	Holder index (0.05)	Other fitness indicators

**Table 4:** The results of the research hypothesis test

Test hypothesis result	Significance level	Path coefficient	Structural Model Variable
Not rejecting the hypothesis	0.0002	-0.375	Behavior accounting ---- Financial reporting quality
Not rejecting the hypothesis	0.000	0.662	Behavior value ---- Financial reporting quality

As shown in Table 4, the path coefficient of managers' behavioural characteristics and the reporting quality of financial information is negative by 0.357 and the significance level of 0.0002 is less than 5%. So, it can be claimed that the behavioural characteristics of managers with the reporting quality of financial information has a significant negative relationship and the first hypothesis of the research is confirmed. Also, the path coefficient to the value of the accounting information and the reporting quality financial information is positive at 0.662 and the significant level is 0.0000 less than 5%.

Therefore, it can be argued that the value of accounting information has a positive meaningful relationship and the second hypothesis of the research is confirmed. In Fig. 3, the structural model of the research is presented along with the standardized regression coefficient.

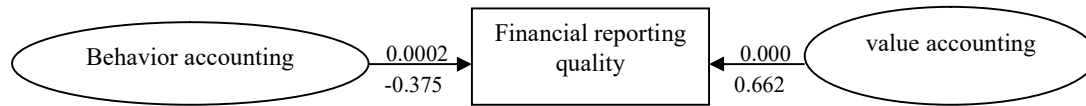


Fig. 3: Structural model of research along with standardized regression coefficients

## 5 Conclusions and Discussion

One of the goals of financial reporting is the providing of information to allow for the rational decision of investors and creditors. In this regard, providing useful and relevant information on the ability to influence the financial decisions of individuals leading to the optimization of decisions is one of the important points that are interesting to users of financial statements. For financial information to be useful in the decision making of the groups, financial reporting purposes require disclosure information in an appropriate manner and this information should be accessible for all.

The views and thoughts of managers as the main decision makers of the company and final verifiers of the reports published by the company can play a significant role in regulating and disclosing information of the company. Research during the 1990s led to the development of models that linked people's psychology to financial markets. Accordingly, researchers encountered many exceptions in financial markets and concluded that behavioural and value phenomena play an important role in determining the behaviour of financial markets. Cognitive psychology deals with the study of psychological processes that affect human thought [30]. Managers as one of the most influential actors in the capital market by providing transparent information are influenced by the phenomenon that influences thought, which can influence their decisions in providing transparent information and how information is reported. As a result, managers' behavioural characteristics are expected to be effective in the reporting quality of financial information. Improving the quality of financial reporting information is one of the consequences of paying attention to valuable content for users of corporate financial information. Therefore, in the present study, the relationship between the behavioural characteristics of managers and the value content of accounting information with the reporting quality of financial information was first examined using a structural equation modelling approach and then by providing a regression model. The results indicate that the behavioural characteristics of the CEOs affect the reporting quality of financial information. Thus, myopia firms are expected to have higher stock returns than other companies this year and report more unusual profits than other companies, Therefore, the reporting quality of financial information will be higher, and if investors are aware of the inflation of profit, then they will probably find the profit information worthless. As a result, the reporting quality of financial information for companies that reduce marketing and research and development costs will be less than the reporting quality of other profitable companies. While in Tehran Stock Exchange, however, does not assess the shares of myopia companies less than non-myopia, and is not able to understand this myopia in the short term, and market players have more than focused on financial reports provided by centralized companies. And do not pay enough attention to other criteria for assessing the performance of the company. These results are consistent with the findings of Jagolinzer

[27] which show the reduction of voluntary expenditures (such as marketing and R & D) in the short term will reduce costs and increase profits, but in the long run, lead to lower yields and more financial commitments for companies. It seems that the capital market in Iran does not fully and rapidly identify the future outcomes of reducing marketing and research and development costs and cannot properly measure or cut down on myopia costs, and investors will be able to ignore other Behavioural Factors Managers make their own decisions in evaluating company performance limited to reports. These results are consistent with the findings of Jacob and Birnberg [26], based on the small reaction of the market to the reduction of marketing and research and development. Also, the view that governs the incentives for trading with affiliated persons refers to the existence of opportunistic behaviour (conflict of interest) in conducting these transactions. As a result, the significance of the relationship between the transaction and the persons affiliated with the financial reporting quality of the listed companies in the Tehran Stock Exchange is indicative of the opportunistic nature of these transactions in the Iranian market, which proves the concerns of the Tehran Stock Exchange regarding transactions with Affiliated Persons. These results are consistent with the findings of Kahneman and Tversky [29] that there are goals behind dealing with affiliated individuals and being efficient or opportunistic in these transactions. Highly trustworthy executives are often optimistic about their decisions and their results, especially in investment decisions, and are more inclined to show high returns on stock. Therefore, accounting information quality is affected by this approach, and managers most tend to disclose optimistic information. These results are consistent with the findings of Mizik [35], Kern [31], That profits predicted by managers with over confidence are more optimistic than the profits predicted by other managers, and the disclosure quality of financial reporting is influenced by the confidence of managers.

These materials show that in Iran, managers with different cognitive characteristics in the same conditions in order to make financial decisions to the goals of the company, they display different behaviours. Also, the provision of transparent and reliable information according to users' needs and attention to the quantitative and qualitative level of published information can play a significant role in the financial reporting quality. Therefore, it is suggested that investors and financial analysts when analysing the financial statements and in their assessment of the companies pay attention to the behavioural characteristics of the managers and the target value of the company from the company's financial reporting and the information contained in the financial statements not just technical use, but a footprint of behavioural and exchange effects to determine the value of the information reported, so that they can more closely assess the management objectives of reporting and make the appropriate decision.

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