

## The Effects of Disclosure of Non-Financial Performance Indicators on Stock Price Estimate in Iran

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**Abstract:** This study examines the effect of disclosure of non-financial performance indicators on institutional investors' stock price estimates in Iran in an experimental setting. In this study, the design included two factors each used in two levels (2 +1). Variables were manipulated including disclosure of non-financial performance indicators in the two levels (positive and negative) and assurance service on this type of information in two levels (providing or not providing assurance) + control group. Results showed that investors react more to positive information on stock price estimates than negative ones. Disclosure of non-financial performance negatively in itself stimulated participants and they reacted negatively. Three main findings of these results were presented. First, non-financial performance indicators based on BSC have significant effects on stock price; this should be of interest to management, analysis and financial analysts, regulator standards, business, professional accounting, auditing and important investors because it provide valuable evidence about indicators to provide non-financial performance for the financial markets. Second, it can provide more information to investors and other foreign users in decision-makings about selling or buying of company's shares. The main contribution of this study is to help to develop understanding and insight of investors regarding non-financial performance related to decision making and evaluation of future company financial activity. This study helps future researchers, regulators and standard setters to develop an appropriate accounting framework for disclosure of non-financial performance indicators.

**Key word:** Disclosure of Non-Financial Performance; Non-Financial Performance Indicators, Institutional Investors, Prospect Theory

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### INTRODUCTION

Development and complexity of economic activities, investor expectations for growth and inefficient accounting information systems have decreased. Conversely, with more than several decades of investment, the importance of non-financial information has increased regarding the measurement and evaluation of company stock prices. These trends have decreased the salience of financial information quality in favor of non-financial performance. Therefore, inappropriate capital market performance and non-disclosure of non-financial information by companies led to many individuals and groups of regulators and researchers to request this type of information. Members of management have also requested non-financial performance to judge decision-making and company status better (Lev, 2001; AICPA, 1994; Eccles *et al.* 2001; Alessandra *et al.*, 2007). In response to requests for more disclosure of information and for protecting investors, a motivation was created for some authorities such as FASB and the SEC to introduce fundamental rules based on information increases, type of information disclosure and disclosing non-financial performance by companies (Paul *et al.* 2009).

Therefore, FASB introduced a report called the non-financial report for development of voluntary disclosures. This report recommended that companies should consider non-financial performance in their annual financial reports. According to the voluntary disclosures report, a committee convened to investigate academic research performed in this area. Studies Lev (2001); Eccles *et al.* (2001); Paul *et al.* (2009) provided evidence based on the value of increased disclosure and increases in some other non-financial performance indicators. Moreover, in 2003, the Securities and Exchange Commission (SEC) published instructions related to analysis of information disclosure and provided recommendations for more disclosure of non-financial performance indicators (N-FPI) by firms (SEC 2003). In the meantime, the special committee for improving and increasing business reports (AICPA) was established. It has played an important role in continuing the previous innovative work regarding development and disclosure of financial reports that also have an important role in EBRC establishment. Therefore, in line with this purpose, this study examine to effect of voluntary disclosure of non-financial indicators on institutional investor estimation of stock price in the Iranian stock market in an experimental investigation. This issue is supported by Prospect Theory. Non-financial performance indicators have created fundamental change in attitude and behavior of investors. Non-financial performances are Customer Satisfaction, Employee Satisfaction and, Firm Internal Process that are extracted by Delphi Method. Experts in an international conference in Iran identified three major variables in the financial field from among 12 non-financial performance variables.

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### **Background of Study:**

Investors, financial analysts, banks, government and all of the people who use financial decisions, make decisions and judge future financial performance of companies based on this information. Despite observing the importance of this issue, there are some claims about this fact that financial reports cannot provide complete and comprehensive information for users of information without including non-financial performance (Eccles *et al.*, 2001; Kaplan & Norton, 2006; ACIFR, 2008; Emanuele *et al.*, 2010; Daniel *et al.*, 2011). Also, although financial factors (e.g., earning, sale, profit, investment return) provide valuable information for investment, they cannot disclose company success in organizational performance according to determined goals in different dimensions in a comprehensive way and for a long time period and also they cannot evaluate strategy development. In recent years, companies have begun using non-financial performance indicators for evaluation such as customer satisfaction and qualitative factors for products (Johnson, 1990; Meek *et al.*, 1995; Kaplan and Norton, 2004, 2006; Holder-Webb *et al.* 2009; SEC, 2009) and FASB (2010) argued that traditional financial measurement systems using accounting measures have been criticized as inadequate and inappropriate for today's business environment.

The Jenkins committee in AICPA (1994) identified the types of data a firm is required to provide to investors and debtors. In 1994, the committee concluded, "a lot is right with today's business reporting in the United States. Yet, many users are strongly critical of certain aspects of (financial) reporting." One of the committee's recommendations to meet the needs of users is that financial statements should focus more on the factors creating longer-term value, including non-financial measures indicating how key business processes are performing (AICPA, 1994). Regarding concerns for more inclusive disclosure, the FASB (2001) introduced a report entitled *Improving Business Reporting: Insights into Enhancing Disclosures*, which helped companies enhance their business reporting in relation to voluntary disclosures. They surmised that non-financial performance is relevant for predicting the future of a company's performance and valuing corporate equity (AICPA, 1994; AAA FASC, 2002; FASB, 2010).

They concluded their study by remarking, "The FASB should investigate and encourage the development of models and frameworks that enhance the relevance of financial performance measures via the inclusion of non-financial performance measures" (AAA FASC, 2002). In addition, some researchers found that current financial measurements are not a feasible way to reflect the long-term profits of firms; extant research supports the claim that non-financial performance measurements are positively dependant on the function of future accounting (e.g.; Banker, Potter & Srinivasan, 2000; Ittner & Larcker, 1998b; Boesso, 2002; Allan, 2010; Dan *et al.*, 2011). Kaplan also posited that although accounting informational systems can calculate the tangible assets and their related costs, they cannot calculate ones related to non-financial performance appropriately. Thus, to solve the deficiencies in implementing a traditional performance measurement system, Kaplan and Norton (1992, 1996a, b, c, 2001, 2004; Wu S *et al.*, 2007) presented the Balance Scorecard donation, an integration of financial performance and non-financial performance measures. This study provides additional evidence in relation to the value of disclosure of non-financial performance indicators to institutional investors in an experimental setting. However, because of lack of disclosure of this kind of information in the stock market, this study provides additional evidence in relation to the value of disclosure of non-financial performance indicators through their effects on stock price estimation in an experimental setting.

### **Reason of Using Psychology Theories in Accounting:**

All of the financial accounting issues are formed in fact from decisions. For example, managers make decisions about voluntary disclosure, accountants control over unlimited accounting, and investors decide about buying and selling stocks and analysts also decide to interpret financial reports (Marcia *et al.*, 2011). Psychologists for more than one hundred years investigated the study of human decision and identified a number of theories about how people behave. Similarly, psychological research can also present many insights about the behavior of managers, auditors, investors and analysts ((Marcia *et al.*, 2011). In addition, empirical accounting researchers for many years tried to identify the relationship between psychological theories or financial accounting issues (Enrico *et al.*, 2009; Blondel, 2002; Birnbaum *et al.*, 1997). However, the archival researchers rarely used these theories for prediction or interpretation of results. Elisa and Molly (2005) have found that almost 71% of empirical papers in financial accounting and only 2% of financial accounting papers in the archive rely on psychological theories. Actually identifying situations in which psychological theory increases our understanding of market behaviors is one field of the present investigation.

Several theories have been developed and extended to describe or predict behavior by decision making. These theories and descriptive theories are made by criteria-based decisions. Expected Utility Theory is considered the most recognized for patterns of normative decision theory, while Prospect Theory, as a descriptive theory of decision making, is considered the main theory based on positive and negative signs of anticipates behavior of future investors. Behavioral finance as a dominator paradigm for financial issues was raised by Kaneman and Tversk, (1979).

***Prospect Theory and Development Hypotheses:***

An additional important type of disclosure suggested by SEC (2003, 2008) AIPCA (1994), FASB (2001, 2010), and EBRC (2005) is related to non-financial performance indicators. Scientific research in the past investigated that this type of value disclosure is related to decision making (Amir & Lev, 1996; Ittner & Larker, 1998; Herschey, 2001; Narayanan *et al.*, 2000; Stephen, 2010) and it can anticipate financial evaluations for the future (Negar 2004; Banker *et al.*, 2001; Ittner & Larker 1998; Susanne, 2011; Paul *et al.*, 2011; Susanne, 2011). All of these scientific researchers showed in the same way that non-financial information is valuable.

However, regardless of experimental discussions about decreasing (or not) relationships in the value of financial reports, an extended number of individual or group classifications requested more disclosure of non-financial functions by companies and their managers (Eccles *et al.*, 2001; Lev, 2001; AICPA, 1994; Boesso, 2002; Helen *et al.*, 2011). In response to more disclosure requests, FASB (2001, 2010) introduced a report called Improvement of Financial Reports to create greater creating insight into voluntary disclosure of non-financial performance. In this report, it is suggested that companies should consider this kind of function in their annual financial reports. After this report, a committee convened to investigate academic research related to this function and information. Also, investigation of analyst reports showed that they use their information about non-financial functions in the same amount and the same importance (Paul *et al.*, 2011). These investigations support the hypothesis that increasing information disclosure leads to increasing value related to judgment and decision making by those who use this information.

Moreover, according to the conceptual framework of BSC, presently most organizations in the United State and European countries and even over the rest of the world use conceptual framework of BSC for evaluation and anticipation of non-financial performance of companies (Ambrose *et al.*, 2011). Kaplan and Norton (2004) believe that if we put both financial and non-financial measures together, it is possible to make effective and holistic judgments and decisions about the company. Professional investors analyze future expected sales by additional information related to future outlook of the sale in a positive or negative manner (Bushee *et al.*, 1999; Alex, 2004). This kind of additional information can be in the form of financial information (Palepu *et al.*, 2000; Robert *et al.*, 2004). For example, if job satisfaction performance of a hotel is considered a measure for finding sale capability indicators of the company, then it can be concluded that measuring non-financial performance of customer satisfaction can be used as a factor for anticipation of professional investors and they will be able to control the customer satisfaction effect on future sale (Banker *et al.*, 2001).

In this research, the value is changed (e.g., customer satisfaction, job satisfaction of employees, and internal process of company) based on BSC and extracted indicators (Kaplan & Norton, 1992, 1996, 2001) and also according to FASB (2000) recommendations provided by benchmarks used to provide this information to investors to anticipate and estimate a company's stock price. For example, investors observe the value of non-financial measures and may interpret it as good news (positive) or bad (negative) news and then they decide based on good or bad news (Hayn, C.1995; Webby & O'Connor, 1996; Basu, S.1997; Burgstahler *et al.*1997; Sankaraguruswamy 1996; Bruce, 1998; Alex, 2004).Future sale anticipation can be used for evaluation and calculation of future company profitability, which is necessary for decision making and judgment (Penman, 2001). Therefore, non-financial performance measurements can provide useful information for development of more detailed anticipations about future sales if these measurements interpret future outlook of the company (positive and negative) ( Bruce, 1998; Alex, 2004). In addition, investors can use non-financial information of companies for judgment and decision making related to measuring purchase or non-purchase of stocks when they anticipate profit (sale and cost anticipation) and cash flow (Ittner & Larcker, 1998; Banker *et al.*, 2000).

Ittner and Larcker (1998a) studies reported data realizes for a particular customer measurement of non-financial indicators published by fortune magazine. They investigated stock market reactions to the survey data and found that importance of the returns of abnormal stock during the 10 days about showing positive relationship of customer satisfaction with the importance of customer satisfaction. These findings provided support for the idea that investors respond directly to non- financial measurements.

Kaplan and Norton (2004) believe there is an inverse relation between loyalty and customer satisfaction with company costs. This means, when customer satisfaction increases, operational costs of the company decrease, which affects loss or gains and finally affects company profitability. This information can be important for internal and external users of company information, especially investors related to decisions about purchasing or not purchasing in today's complicated market (Reichheld & Sasser, 1990; Kevin, 2004). According to Marshall (2000), the number of staff changing will lead to a change in the quality of the product. Therefore, the number of customers will increase and stock value also increases.

Alex (2004), in an experimental investigation showed that disclosure of non-financial information influences the professional investors function. He used measures for unknown non-financial information, which led professional investors to consider greater difference between company evaluations by high and low average amount of non-financial functions. Results showed that just disclosure of unknown non-financial information does not have an adequate effect on judgment regarding the function of professional investors. Amir and Lev (1996) indicated that measurement of the financial function cannot provide comprehensive information for

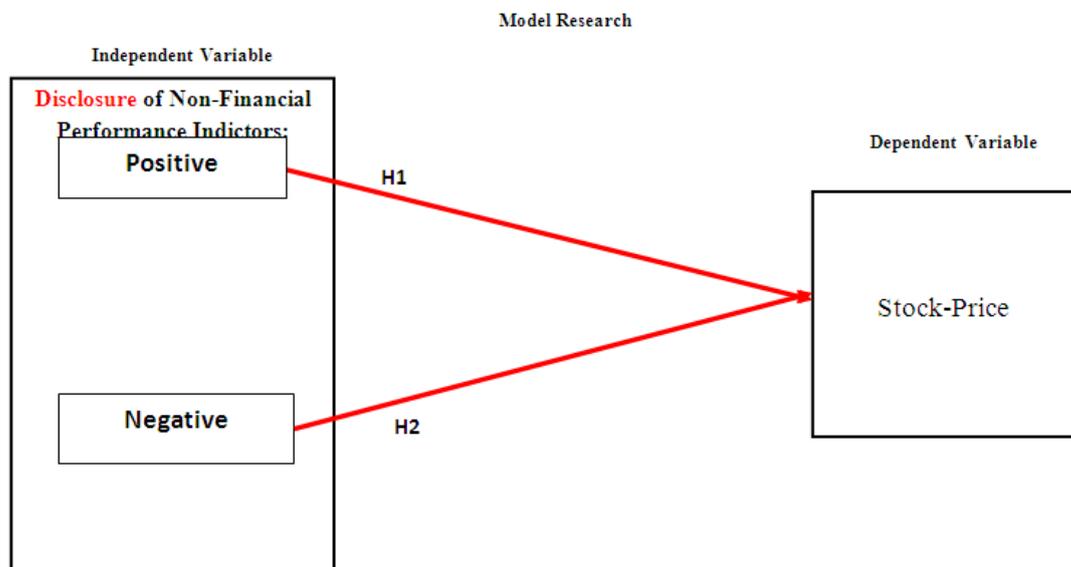
future anticipation about disclosure of information. The importance of observed issues by Amir and Lev created strong concepts for investigation in stock market capital.

Luft and Shields (2001); Susanne, (2011) reported that investors could obtain non-financial information and functions independent of reported financial measures. Especially, they indicated that perhaps non-financial measurements could guide investors better in terms of financial information and the current function of the company, which influence future function of the company. Related to using financial and non-financial information by management, Luft and Shields indicated there are potential nonfinancial information resources in external reports of the company. This means nonfinancial information functions may guide and anticipate the future of the company better than financial information. These studies provided evidences of quality value of increasing disclosure of information and value of increasing disclosure of some (a number of) non-financial indices functions (Narayanan *et al.*, 2000; Stephen, 2010; Susanne, 2011). However, external disclosure of this kind of information is different, unusual and non-standard.

AAAFASC (2000) raised the issue that companies should use a unique uniform framework for disclosure of financial and nonfinancial function measures. However, if users of these financial reports in the stock market can use this information properly and in an effective manner (Meek *et al.*, 1995; Banker *et al.*, 2000; Ittner & Larcke 1998a). Nevertheless, they represented “FASB should investigate and encourage model development and provide frameworks about relationship[s] between financial function measurements by using non-financial function measures (AAAFASC, 2002, p. 361).

This study suggests BSC is an appealing structure and framework for disclosure of non-financial function of companies. BSC is an attitude of management function that is a combination of the non-financial function (e.g., customers, staff, and internal process of company) with the financial function of the company (Kaplan & Norton, 1992; Wu S *et al.*, 2007). Kaplan and Norton (2006) suggested BSC as a method that helps to develop intangible assets such as skill and knowledge of workers, innovation in services and products, high quality product for customers and improvement of internal processes. Here the question is, if non-financial performance is considered a related value and an internal management controller tool, why non-financial performance is not useful for financial decision makers and investors?

Eccleset (2001) suggests some non-financial performance includes service quality and customer or employee satisfactions, which are considered to be pioneering indicators in anticipation of functions and financial earnings in the future. However, recent publications (FASB 2001; AAAFAS, 2002; Eccels *et al.*, 2001; Alex, 2004; Kevin, 2008; paul *et al.* 2009) indicated that presently there is more interest to these kinds of changes in a report framework.



**Fig. 1:** Conceptual Model of Stock Price Estimate is Fitted Based on Prospect Theory

**H1-** Disclosure of non-financial performance indicators (customer satisfaction, employee satisfaction and firm internal process) positively will increase institutional investors’ stock price estimates.

**H2 -** Disclosure of non-financial performance indicators (customer satisfaction, employee satisfaction and firm internal process) negatively will decrease institutional investors’ stock price estimates.

Positive (profit area) and negative (loss area), non-financial performance indicators are based on Prospect Theory. This theory suggests investors are more sensitive to losses than gains (Kaneman & Tversky, 1979). It is

claimed that compatibility with negative aspects of a topic, event or choice is more influential than its positive aspects in judgment. Research literature represents that investors react more to losses or negative information than other positive information and it shows more emphasize on negative information than information considered positive ones. This issue is supported by Anderson (1988) who found that professional tests are more investigated than properties considered as negative ones in contrast to positive ones. Anderson expressed that this indicates more emphasis on negative properties as well as less focus on understanding and more mistrust to positive properties.

***Experimental Method:***

***Control group:***

Controlling group contains some managers of financiers' institutional investor which are selected randomly. They received only the basic financial reports with the independent audit report and they is requested based on that information without taking into account other adverse factors that estimate the company's stock price for the next year. This approach is similar to the approach used by (Hopkins, 1996; Paul. *et al* 2009; Robert *et al.*2009).

***Experimental groups:***

Experimental groups include those groups of investors who both receive the basic financial report together with the independent audit report and their non-financial performance reporting to assurance this type of information in four different conditions. Investors are asked to estimate stock price of the company for next year based on the information that has been disclosed.

***Experimental Materials:***

In most previous experimental studies that behaviors of investors were involved, to achieve the objectives of the study, they used a (real or hypothetical company) in a natural environment (Hopkins, 1996; Brooke *et al.*2008; Robert *et al.*, 2009; Mehde *et al.*2010).

In this study, participants used an annual real financial report (Follad Mobarakeh company is one of these companies which has activity is stock market and based on performed evaluations, it uses non- financial information's like BSC somehow and disclose them in financial reports) that includes: company information, non-financial performance indicators (customer satisfaction, employee satisfaction and firm internal process), independent financial reports. Participants are asked based on provided information in order to estimate whether the stock price will increase or will decrease for next year. This approach is similar to the approach used by (Hopkins.1996; Joseph *et al.* .2009; Robert *et al.*, 2009). Non-financial performance indicators used of BSC in this study are based on studies of Hopkins, 1996; Lipe and Salterio (2000) who developed these indicators. Also in 1996, Kaplan and Norton introduced these indicators for the first time.

In this study, financial reports and information background for all three groups is fixed and is not manipulated and only provides general information about the industry and the company. Therefore, this information equally influences all three groups (two experimental and one control group). In addition, three major cases of financial reports include real company balance sheets, income statements and cash flows for three fiscal years from 2009 to 2011, which provide a comparative basis.

Manipulation of the independent variable in this study is associated with providing non-financial performance indicators. Disclosure of information is based on the general outlines of non-financial BSC performance indicators related to the company's strategy and vision. Kaplan and Norton in 1996 for the first time introduced BSC and based on studies by Hopkins (1996), and Salterio and Lipe (2000), BSC indicators were developed. In addition, these materials are developed as negative and positive in this study. Manipulation of independent variables is disclosed in this experience as positive or negative non-financial performance for institutional investors. In the questionnaire, participants are asked to make a stock price estimate for next year. Their answers are evaluated based on the 11-point Likert-type scale (i.e., 0, very weak and 10 very well).

***Independent Variables:***

The first independent variable related to voluntary disclosure of non-financial performance indicators in positive and negative form. Namely, non-financial performance reporting is presented as positive, while the contents of non-financial performance information is negative. Disclosure was based on BSC indicators outlined with non-financial performance related to strategy used by the company. This is a disclosure because legal and professional obligations do not exist in this regard. Disclosure of non-financial performance is reported on a variety of related measures of customer satisfaction, employee satisfaction and internal process.

***Dependent Variable:***

Participants read the questionnaire and instruction. The price of share that is provided for the company is R58000. This shows the share price one day before the publication of the financial report. This approach is

similar to the approach used by (Hopkins, 1996; Joseph *et al.* 2009; Mehde *et al.*2010). Participants were asked if they believe the company stock price will increase, decrease or will remain constant. If investors think the stock price will change, they were asked the percentage of change. Then some questions were asked about similar attitudes and views used by (Hopkins, 1996; Robert *et al.*, 2009; Mehde *et al.*2010). This work has some advantages that can provide better control over external factors that involved in estimating stock price. In this study, stock price is reported and it is compared with the percentage changes reported by the company users. Participants answer questions related to the level of performance by non-financial indicators.

**Factorial Design:**

The design for this research study is based on using a factorial design. Factorial design enables us to test two or more effects of some manipulation on the dependent variable simultaneously and evaluate their individual or common influences (Uma *et al.*, 2010). This study attempted to recognize if the two types of non-financial performance disclosure (positive and negative) to be applied, what is the stock price estimate. In this study, the design included a factor used in two levels (2 +1=3). This means that including disclosure of non-financial performance in the two levels (positive non-financial performance indicators and negative non-financial performance indicators) + control group. Much information is achieved by this plan. The study provided estimation of the company stock price in both levels is determined for non-financial performance disclosures (positive and negative). Table 1 shows the factorial element of 2+1=3 design used in such cases.

**Table 1:** Experiment Design 2+1=3

Number of Group	Basic information	Disclosure of NFPI
Group 1	Financial statements	positive
Group 2	Financial statements	Negative
Group 3	Financial statements	-----

**Results:**

**Manipulation Checks:**

Cronbach's alpha coefficient is one of methods to calculate the reliability. In order to calculate reliability in this study, a pilot study was conducted with distribution of 20 questionnaires among managers of investment institutions in Stock Exchange. Then Alpha value for each question and for the entire questionnaire obtained using SPSS software as follows: ( $\alpha=0/78$ ) Reliability of mentioned questionnaire can be evaluated as optimal.

**Participants:**

Participants were institutional investors include: Stock broking firms, unit trust fund companies, fund management companies, investment advisory firms and large public fund organizations (Bouwman 1982, Bouwman *et al.* 1987, Hunton and McEwen 1997; Ku Nor Izah ,Roy Chandler,2005). Obtained results indicated that among total 88 individuals in the sample of this study, 71 were men, 79 5%, and 18 others, 21%, were women. According to Obtained results, 10 individuals, 8.8 % of respondents were in the age group of 23 -35 and 43 individuals, 48.8 % were in age group of 36-45 with highest frequency belonging to the same age group. In addition, 42.4 percent of respondents were from other age groups of 46 to 75. Experience of respondents in terms of stock market securities to investments per year are defined in 5 categories. It is observed that highest frequency equals 32.4 that is related to category of 11-15 years of experience. The lowest percentage is related to the group with experience above 20 years, approximately 2.7. Also, category of less than 5 years experience has low amount of 1.8 percent including 13 individuals. Also, observed that around 75 Percent of the total sample size in the organization is related to financial management, 12.2 percent is related to accounting, 10 percent to management , 2.7 percent to tax post.

**Testing of Hypotheses:**

This study examined whether the positive and negative disclosure has an important and significant impact on the estimated stock price. Meaningful and significant impact of non-financial performance indicators in previous studies confirmed by Amir and Lev 1996; Itner and Larcker 1998; Banker *et al.* 2000; Banker *et al.* 2004; Paul *et al.* 2009. In the first stage, estimation of control group according to stock changes of 58000 Rials for the next year :

**Table 2:** One-Sample Statistics

	N	Mean	Std. Deviation
Estimations of the Share Price	30	58058.00	4532.121

**Table 3:** One-Sample Test

	Test Value = 58000			
	t	df	Sig. (2-tailed)	Mean Difference
Estimations of the Share Price	.070	29	.945	58.000

According to the tests performed, it was observed that the control group predicted a fixed amount of stock value of R58,000 with no change. This value, with a significant level of 0.945 confirms the researcher’s claim. Therefore,  $H_0$  assumption is acceptable, and the test is no significant. In the second stage, the control group, and the positive group examined this using independent samples test to test H1 to see if positive non-financial performance indicators affects stock price estimation.

**Table 4:** Group Statistics

Groups	N	Mean	Std. Deviation
Estimations of the Share Price	Control	58058.00	4532.121
	Positive without Assurance	62900.00	3725.395

**Table 5:** Independent Samples Test

		Levene's Test for Equality of Variances		T-Test for Equality of Means			
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference
		Estimations of the Share Price	Equal variances assumed	.051	.823	-4.474	57
Equal variances not assumed				-4.489	55.583	.000	-4842.000

According to the independent samples test, it can be observed that the control group’s estimate and the positive without assurance group’s estimate are contradictory to each other based on a significance level of .000 that is less than 0.05. This indicates that the test is significant. In addition, as the Table 4 shows, it was found that the positive without assurance group predicted that the value of stocks will increase to above R58,058 estimated by the control group for the next year, to an average of R629000. It was also observed that that influence of the nonfinancial performance alone can have a kind of incremental impact of over R4842 on the stock price. In the third stage, the control group and the negative group examined this using the independent samples test to test H2 to see if negative non-financial performance indicators affects stock price estimation.

**Table 6:** Group Statistics

Groups	N	Mean	Std. Deviation
Estimations of the Share Price	Control	<b>58058.00</b>	4532.121
	Negative without Assurance	<b>56724.00</b>	2129.150

**Table 7:** Independent Samples Test

		Levene's Test for Equality of Variances		T-Test for Equality of Means			
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference
		Estimations of the Share Price	Equal variances assumed	3.166	<b>.080</b>	1.459	58
Equal variances not assumed				1.459	41.206	<b>.152</b>	1334.000

According to the independent samples test in table 7, it can be observed that the control group’s estimate, and the negative without audit group’s estimate are the same based on a significance level of 0.150 that is more than 0.05. This indicates that the test is no significant. In addition, as Table 6 shows, it was found that the negative without audit group predicted that the value of stocks will decrease from R58,058 estimated by the control group for the next year, to an average of R56724. It was also observed that that negative influence of nonfinancial performance without assurance on decreased stock prices has been much less than for the four previous groups. It can be presumed that participants reacted negatively to nonfinancial performance. These results support H2 in the study.

**Conclusion:**

Supported results of (H1) hypothesis1, i.e. positive non-financial performance based on only BSC indicator has an effect on the estimated stock price in the next year. Participants reacted reasonably to this type of without assurance information. It can be concluded that disclosure of non-financial information in the positive form will be useful for users for the stock price estimation and decision- making. In addition, these studies

supported results of (H2) hypothesis2, i.e. negative non-financial performance based on only BSC indicator has an effect on the estimated stock price in the next year. Participants reacted negatively to this type of without assurance information. It can be concluded that disclosure of non-financial information in the negative form to some extent will be effective in the stock price estimation. However, this effect is not very salient and estimated stock price of this group is close to that of control group with basis indicator of 58000 Rials. It can be concluded that participants reacted to both positive and negative information. However, these reactions were more in positive information due to confidence of participants to positive information against negative information that was consistent with prospect theory. Moreover, a few lateral questions, with some effects on reliability of results were analyzed. Results Showed that gender, age, work activities, work experience, organizational and business context of participants had no impact on estimated stock price. Results showed that investors react more to positive information than negative ones. Disclosure of non-financial performance negatively in itself stimulated participants and they reacted negatively.

This study provided some experimental evidence based on impact of structured disclosure of non-financial information on the estimated stock price. Three main findings of these results were presented. First, non-financial performance indicators appeared based on BSC had a kind of very significant impact on the estimated stock price. This should be interesting for regulators, users and accounting profession. If this type of information is value related, then these findings suggest that companies will benefit this kind of disclosure. However, there are some costs associated with disclosure of related information and managers need to consider whether the benefit of non-financial non-financial information disclosure that particularly shows BSC framework for disclosure of users outside the company. Second, It can provide more information to investors and other foreign users in decision-makings about selling or buying of company's shares. These results can be important for the accounting profession and some of them can resolve current challenges of accounting profession. In addition, it can help to develop and extend accounting related to the disclosure of non-financial performance.

#### **Contribution of the Study:**

On the practical level, the study offers some support for the present research literature. First, this study extend previous research work of researchers (Banker *et al.*, 2000; Banker *et al.*, 2004; Hunton *et al.*, 2004; Paul, 2009) who proposed that they are related to non-financial performance values. In addition, it is extended on the research literature review to develop valuable market voluntary disclosures of the company (Amir, *et al.*, 1996; Hunton *et al.*, 2003; Alex, 2004; Kevin, 2008). Also, this study complements a growing area of research which inspects non-financial performance indicators based on the BSC that influence on investors and regulator policies. Second, this study answer the request by FASB, SEC, AICPA for more theoretical approaches used in scientific research. Finally, if this study could achieve the main objective of this research, then it can be considered important for accounting professionals and some of the challenges currently facing the accounting profession. Since there is no standard framework related to non-financial performance indicators in Iran, this study can contribute to the setting of accounting standards in this regard in Iran. This study helps future researchers, regulators and standard setters to develop an appropriate accounting framework for disclosure of non-financial performance indicators (N-FPI).

#### **Limitation and Future Research:**

Highest amount of inherent restriction that are common in experimental studies consist behavioral tests conducted in a controlled environment and added a domestic reliability to results of this study. However, experimental studies may limit participants in a realism manner and reduces external reliability. Sample of this study includes participants who had more financial expertise and were active in stock market. Another limitation in this study is dependent on financial information. Future researches will examine how non-professional investments and decisions of financial analysts and brokers are evaluated based on BSC indicators. They also will investigate other indicators of non-financial operation to increase disclosure for other users of financial lists. Another suggestion for future researches is to compare two groups of professional and non-professional and compare the results based on non-financial information. Future studies need to examine how biases and lack of specific knowledge of professional investors can be reduced. Thus, increased disclosure in the market can be considered as financial benefits of all users. Finally, other similar experimental studies in other stock markets of other countries will be performed to support the research.

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