


**MODELING ACCOUNTING PROFIT BEHAVIOR BASED ON EVENTS THEORY A  
COMPARATIVE STUDY OF COMPANIES LISTED ON THE TEHRAN AND ISTANBUL  
STOCK EXCHANGE**

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ARTICLE INFO	ABSTRACT
<p><b>Article history:</b></p> <p>Received 05 December 2022</p> <p>Accepted 06 February 2023</p>	<p><b>Purpose:</b> This study aims to evaluate the effect of annual financial events on operating, and net accounting profits in the financial statements of Iranian and Turkish companies.</p> <p><b>Theoretical framework:</b> The profitability of the company is one of the main factors that determine shareholder and investor returns. This topic has been central to a number of contemporary financial studies discussed in the literature review.</p> <p><b>Design/methodology/approach:</b> To conduct the research, data related to the financial statements of 121 companies listed on the Tehran Stock Exchange for a period of 10 years from 2010 to 2019 and 151 companies listed on the Istanbul Stock Exchange for a period of 10 years from 2010 to 2019 were used.</p> <p><b>Findings:</b> According to the results, there was a significant relationship between financial events and operating, and net accounting profits of Iranian and Turkish companies. Moreover, current and previous financial statements affected accounting profit, and no significant difference was observed between the two geographical locations of Iran and Turkey.</p> <p><b>Research, Practical &amp; Social Implications:</b> Information about companies' financial statements could be utilized by investors and analysts to more suitably analyze companies' current and future profits and returns.</p> <p><b>Originality/value:</b> Most previous studies have assessed factors inside or outside the organization affecting profit, and the capacity of complete information on the change of the financial situation in different periods and its effect on profit behavior has not been thoroughly analyzed. This matter highlights the significance of our study.</p>
<p><b>Keywords:</b></p> <p>Company Profit Behavior; Annual Financial Events; Information Content; Panel Data.</p> <div data-bbox="172 1032 480 1279" style="text-align: center;">  </div>	<p>Doi: <a href="https://doi.org/10.26668/businessreview/2023.v8i2.1352">https://doi.org/10.26668/businessreview/2023.v8i2.1352</a></p>

**MODELANDO O COMPORTAMENTO DO LUCRO CONTÁBIL COM BASE NA TEORIA DOS  
EVENTOS UM ESTUDO COMPARATIVO DE EMPRESAS LISTADAS NA BOLSA DE VALORES  
DE TEERÃ E ISTAMBUL**

**RESUMO**

**Objetivo:** Este estudo visa avaliar o efeito de eventos financeiros anuais sobre os lucros operacionais e líquidos contábeis nas demonstrações financeiras de empresas iranianas e turcas.

**Referencial teórico:** A lucratividade da empresa é um dos principais fatores que determinam o retorno aos acionistas e investidores. Este tópico tem sido central para uma série de estudos financeiros contemporâneos discutidos na revisão da literatura.

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**Desenho/metodologia/abordagem:** Para conduzir a pesquisa, foram coletados dados referentes às demonstrações financeiras de 121 empresas listadas na Bolsa de Valores de Teerã por um período de 10 anos de 2010 a 2019 e 151 empresas listadas na Bolsa de Valores de Istambul por um período de 10 Foram utilizados os anos de 2010 a 2019.

**Resultados:** De acordo com os resultados, houve uma relação significativa entre os eventos financeiros e os lucros operacionais e líquidos contábeis das empresas iranianas e turcas. Além disso, as demonstrações financeiras atuais e anteriores afetaram o lucro contábil e nenhuma diferença significativa foi observada entre as duas localizações geográficas do Irã e da Turquia.

**Implicações de pesquisa, práticas e sociais:** As informações sobre as demonstrações financeiras das empresas podem ser utilizadas por investidores e analistas para analisar de forma mais adequada os lucros e retornos atuais e futuros das empresas.

**Originalidade/valor:** A maioria dos estudos anteriores avaliou fatores dentro ou fora da organização que afetam o lucro, e a capacidade de informações completas sobre a mudança da situação financeira em diferentes períodos e seu efeito no comportamento do lucro não foi exaustivamente analisada. Este assunto destaca a importância do nosso estudo.

**Palavras-chave:** Comportamento Lucrativo da Empresa, Eventos Financeiros Anuais, Conteúdo Informativo, Dados em Painel.

## MODELADO DEL COMPORTAMIENTO DE LAS GANANCIAS CONTABLES BASADO EN LA TEORÍA DE EVENTOS UN ESTUDIO COMPARATIVO DE LAS EMPRESAS QUE COTIZAN EN LAS BOLSAS DE VALORES DE TEHERÁN Y ESTAMBUL

### RESUMEN

**Propósito:** Este estudio tiene como objetivo evaluar el efecto de los eventos financieros anuales en las ganancias operativas y contables netas en los estados financieros de las empresas iraníes y turcas.

**Marco teórico:** La rentabilidad de la empresa es uno de los principales factores que determinan la rentabilidad de los accionistas e inversores. Este tema ha sido fundamental para una serie de estudios financieros contemporáneos discutidos en la revisión de la literatura.

**Diseño/metodología/enfoque:** Para llevar a cabo la investigación, datos relacionados con los estados financieros de 121 empresas que cotizan en la Bolsa de Valores de Teherán durante un período de 10 años desde 2010 hasta 2019 y 151 empresas que cotizan en la Bolsa de Valores de Estambul por un período de 10 Se utilizaron los años 2010 a 2019.

**Hallazgos:** Según los resultados, hubo una relación significativa entre los eventos financieros y las ganancias operativas y contables netas de las empresas iraníes y turcas. Además, los estados financieros actuales y anteriores afectaron el resultado contable y no se observaron diferencias significativas entre las dos ubicaciones geográficas de Irán y Turquía.

**Implicaciones de investigación, prácticas y sociales:** los inversores y analistas podrían utilizar la información sobre los estados financieros de las empresas para analizar de manera más adecuada las ganancias y los rendimientos actuales y futuros de las empresas.

**Originalidad/valor:** La mayoría de los estudios previos han evaluado factores dentro o fuera de la organización que afectan las ganancias, y la capacidad de información completa sobre el cambio de la situación financiera en diferentes períodos y su efecto en el comportamiento de las ganancias no ha sido analizada a fondo. Este asunto destaca la importancia de nuestro estudio.

**Palabras clave:** Comportamiento de la Utilidad de la Empresa, Eventos Financieros Anuales, Contenido de la Información, Panel de Datos.

### INTRODUCTION

As properly perceived by accounting experts, the main goal of accounting is to facilitate decision-making. In a study, Ball and Brown (1968) highlighted the role of accounting information in capital markets. Today, this research area is of paramount importance in accounting literature. This type of research prefers to classify the value of accounting figures.

Proper financial reporting depends on the existence of a robust and consistent accounting system. In the area of performance assessment and decision making, one of the most applicable outputs of an accounting system is profit, which has attracted the attention of scholars at various times.

The increasing complexity of international conditions has intensified changes in the economic environment. In addition, demand for information that is shown by accounting profit, such as judging the profitability and risk factor of the company, is becoming more necessary every day (Liu et al., 2022).

Simply put, profit is defined as positive earnings from business operations or investments after deducting all expenses. In fact, profit is the main goal of all commercial and for-profit organizations. The expectation of earning more profit in most business organizations has encouraged them to invest in new areas. This has resulted in great job opportunities in the economy, which more increases the level of income. As a result, demand for products and services increases in the economy. Therefore, profit obtained by business organizations plays a crucial role in the economy.

Accounting profit is the net income for a company or revenue minus expenses. It has no independent operational nature and fully depends on two elements of revenues and expenses. Revenues and expenses borrow their definitions from equity. In addition, the definition of equity is derived from the difference between assets and liabilities.

In fact, assets and liabilities have independent definitions and more objectivity. Therefore, in order to properly analyze profit, one needs to refer to its roots- i.e., assets and liabilities, and focus on their periodic changes reflected in the financial events of the business unit. In addition to profit and loss effects, financial events include non-profit and non-loss financial performance such as investments, projects, debt collection, inventory management, and stagnant items. Therefore, more complete information about the business unit's performance relative to profit can be provided by using this concept.

The majority of previous studies have assessed factors inside or outside the organization affecting profit, and the capacity of complete information on the change of the financial situation in different periods and its effect on profit behavior has not been fully taken advantage of. Therefore, the present study aimed to evaluate the effect of annual financial events (changes in the financial situation) on operating and net accounting profits published in the financial statements of Iranian and Turkish companies.

## **THEORETICAL FOUNDATIONS AND RESEARCH BACKGROUND**

One of the most important goals of financial reporting is preparing information that could reflect the performance of a business unit by measuring its profit and components (Hendrickson, 1982).

Profit is one of the most important indicators for measuring the activities of business units. Several studies have been conducted on this matter worldwide, which have described its various approaches within the framework of scientific findings and have mentioned its strengths and weaknesses.

Understanding which issues affect accounting profit and what areas are affected by this concept is a result of the expansion of quantitative techniques in the field of management and the necessity of heeding attention to the requirements of users of financial statements. Following comprehending measurement theories as basic discussions, it has mentioned the performance of historical operations of accounting to empower decision-makers. According to William Beaver (1970), this area of accounting is especially important due to its ability to lay the foundation for expanding an important part of accounting and financial research. According to Watts and Zimmerman (1986), the desire for assessing accounting profit behavior in recent years has been due to attention to security valuation models.

Accounting profit plays an important role in the prediction of the future performance of companies. The current price of each business unit (stock price) is related to the expected future profit stream, and investors often sell or keep their shares based on their expectations of the company's future profits. Concept Statement No. 1 of the Financial Accounting Standards Board (FASB) demonstrates that investors, creditors, and others may use the reported profits and information related to the elements of financial statements to assess the cash flow outlook. They may want to evaluate management performance, estimate profitability power, predict future revenues, assess risk or confirm, change or reject previous assessments or predictions. Even though financial reporting must provide basic information to help them, they evaluate, estimate, predict, confirm, change or reject themselves.

The events approach in accounting theory reveals that the goal of accounting is to provide information about relevant economic events that may be beneficial in different decision-making models. The accountant responsible for providing information related to events leaves the task of matching the events with the decision model to the user (Sorter, 1969).

In this technique, the accounting's goal is to provide data on accounting events that could be beneficial for users. While the accountant is responsible for preparing information, the

users are responsible for transforming this information, according to specific patterns of decision-making.

From an experimental or experimental point of view, transaction-based normative or prescriptive accounting theory is summarized, as follows:

For stakeholder groups such as shareholders, employees, managers, suppliers of raw materials, customers, government institutions, and charities to better predict the future of social organizations such as households, companies, governments, and human rights organizations, the most relevant or prominent features and characteristics of important events (internal, environmental and transactional) that are collected on the organization temporarily must be published periodically and without any inferential bias.

The following operational definition was provided by Sorter when using an event-based approach to prepare a balance sheet:

A balance sheet should be prepared in such a way as to maximize the reconstruction of the events to be included. According to Sorter's definition, all digits collected in a balance sheet can be separated to show that the events have occurred from the beginning of the company until now.

In an event-based method, the goal of accounting is to provide information about accounting-related events that can be used in a variety of useful decision-making patterns. It is the accountant's responsibility to provide information about events and leave the task of matching events with decision-making patterns to the information user. The users are responsible for weighting and valuing the data collected based on their specific benefits. An accounting information user turns the event into accounting data that fits their individual decision-making model. The result content of accounting reports reflects real-world observations (Belkaoui, 2019).

Johnson (1970) has emphasized the "normative events theory" to increase the accuracy of predicting accounting reports for users with an emphasis on the most relevant characteristics of critical events. This scholar observed:

Interested people (shareholders, employees, suppliers) need the most relevant features in order to better predict the future of social organizations (households, businesses, governments, and charities). Important (internal, environmental, and transactional) events that affect organizations are collected for periodic publication without inferential bias. The value approach in accounting is a traditional one that assumes that "users' needs are identified and specified adequately such that the accounting theory can obtain and generate optimal input values for users' decision-making models comparatively.

Nevertheless, it has been accepted that the input values cannot be optimized for all uses and users. In the value approach, the balance sheet is considered an indicator of the financial status of a business company at a certain point in time. In contrast, in the events approach, the balance sheet is considered as an indirect communication of all the accounting events related to the company since its inception.

In the transaction approach, changes in the assessment of assets and liabilities are recorded only if they result from transactions and operations and other financial events. The terms financial events, operations, and transactions are defined broadly in order to include external operations and transactions and internal events.

The present study attempted to evaluate the effect of annual financial events (changes in the financial situation) on operating and net accounting profits published in financial statements of Iranian and Turkish companies based on theoretical concepts. A summary of previous domestic and foreign studies is provided below.

Assessing accounting profit behavior, Thaghafi and Aghaei (1994) found differences between companies regarding the accounting profit process. They even reported significant differences in the profit process of similar industries. If these differences are caused by a type of production technology or lack of use of capacities or cost differences, dealing with them will help to stabilize the stock prices and gain confidence and trust of investors in addition to improving the profitability process.

In a study, Norosh and Gholamzadeh (2003) reported that the process of annual profit creation of Iranian companies is a moving average. Moreover, their results demonstrated that the profits of these companies do have not much quality and do not involve much information content about future profits. Furthermore, the results of the cross-sectional comparison indicated the sameness of the profit creation process in a specific industry.

Bahar Moghadam and Hasanifard (2010) evaluated the manipulation of financial events through an emphasis on variables such as cash flows from operations, discretionary costs, changes in inventory, and production costs. Accruals have been chosen as a suitable substitute for profit management measurement. The results were indicative of a significant relationship between operating cash and changes in inventory and profit management in companies listed on Tehran Stock Exchange.

According to Nowrozi et al. (2021), profit expectations with positive (negative) stability in profit signals led to an increase (decrease) in the prediction error of future profits and stock returns. The overall results of the study demonstrated that the path of profit expectations drawn influenced the adjustment of the predicted profit and the behavior of investors.

In investment, investors are more interested in dividends in the form of cash profit. Corporate financial status, which consists of net income and operating cash flow, is a factor that divides the amount of cash profit of companies into investors. In a study, Rinjani and Hassana (2019) applied multivariate linear regression analysis, indicating that net profit affected cash dividends and operating cash flow influenced cash dividends. Gupo et al. (2021) analyzed the effects of key financial variables on the net profit of selected commercial banks in Oman. Using the panel data of these centers, the scholars conducted a cross-sectional analysis of key financial information of five leading commercial banks for a period of 13 years (2007-2019). According to the results, the correlation matrix of selected variables has a positive relationship with net profit, assets, deposits, loans, and interest income. Nevertheless, the results also indicated a negative relationship between net profit and the loan-to-deposit ratio (LDR).

Liu et al. (2022) evaluated the accounting profit forecasting theory through accounting profit factors non-linearly and designed an AI-based accounting profit prediction model. A complex multifactor time series forecasting model is created by integrating artificial neural networks, and reinforcement learning is used to stabilize the model to avoid overfitting, which provides a new solution for multi-factor timing. The complex relationship series forecasting problem and experimental and comparative analysis results showed the effectiveness of the improved recurrent neural network accounting profit forecasting model.

In this study, the emphasis was on the relationship between financial events and profit, which was assessed by using panel data. The conceptual model of the research is, as follows:

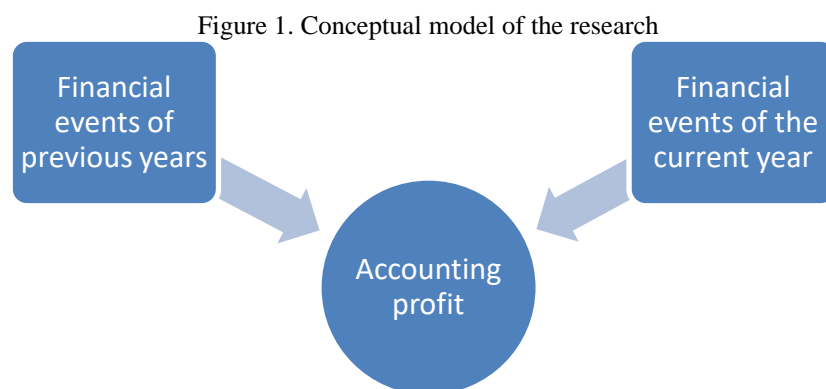


Figure 1 depicts the conceptual model of the research. Accounting profit is the result of events created by corporate managers during the current year or previous years.

## RESEARCH METHOD

This was a quasi-experimental study in the area of accounting. First, the theoretical logic of the study was investigated by library research in order to identify important and effective variables. In addition, research hypotheses were tested using an inductive method to collect and analyze data and the results were interpreted and compared with analogical presuppositions.

The models were divided into three groups in terms of data use. Some of the models are developed by using time-series information or over a relatively long period of several years. Some of the models are estimated based on cross-sectional data, meaning that variables are examined in a certain period of time- e.g., based on a week, a month, or a year in different units (companies). The third model estimation method used in the current research was estimation based on combined data, where a series of cross-sectional units (companies) are selected over several years. The number of observations increases favorably by using this method, which has been utilized in recent years a lot. Given that integrated observations cause higher variability, less multiple collinearities between explanatory variables, more degree of freedom, and higher efficiency of estimators, mixed studies have advantages over cross-sectional and time series studies (Baltagi, 1995). The possible influences of the combination process must be identified and controlled in the form of combined data analysis, which is a special case of combined data. In this state, various methods such as fixed effects and random effects exist to estimate the model based on combined data.

In the fixed effects method, coefficients related to variables (slopes) are considered fixed, and differences between units can be shown as the difference in the y-intercept. In this mode, if the y-intercept is different only for various cross-sectional units, the fixed effects method will be unilateral. On the other hand, the fixed effects method will be bilateral if the y-intercept is different both between sections and between periods.

The use of fixed effects methods is justified if there is a possibility of showing the difference between sections in the form of regression function transfer. Nevertheless, there is always no certainty in this regard. A method has been proposed to solve this issue known as the error component model or random effects model. This technique assumed that the fixed component, which determines various sections, is randomly distributed between units and sections.

If the coefficients of cross-sectional effects and time effects are not significant in examining cross-sectional data and time series, data can be integrated and estimated by an ordinary least squares regression (OLS). Given that most coefficients of sections or time series are significant in the majority of mixed data, the model is known as an integrated regression



model, which is used less often (Yafi, 2003). In order to be able to determine whether the combined data will be more efficient to estimate the desired function or not, a hypothesis is tested in which all constant expressions of estimation are equal to each other. The test is known as the Chow test or F-Limer test.

## RESEARCH HYPOTHESES

The research hypotheses were divided into four categories based on the theoretical framework of the study and a comparative study of Iranian and Turkish companies:

1) Net accounting profit behavior is relative to financial events, which is tested over two secondary hypotheses:

1-1) Net accounting profit is affected by financial events in the current period and previous years in Iranian companies.

1-2) Net accounting profit is affected by financial events in the current period or previous years in Turkish companies.

2) Accounting operating profit is relative to financial events, which is tested by the following secondary hypotheses:

2-1) Accounting operating profit is influenced by financial events in the current period and previous years in Iranian companies.

2-2) Accounting operating profit is influenced by financial events in the current period and previous years in Turkish companies.

3) Accounting profit behavior is relative to financial events in various geographical regions, which is tested by the following secondary hypotheses:

3-1) Net accounting profit behavior reactions to financial events are higher in Turkish companies, compared to Iranian companies.

3-2) Accounting operating profit behavior reactions to financial events are higher in Turkish companies, compared to Iranian companies.

## RESEARCH VARIABLES AND RESEARCH HYPOTHESIS TESTING MODEL

Dependent variables: accounting profit including two variables of operating profit and annual net profit.

Dependent variables: annual financial events including changes in assets, debits, and equities.

In order to test the research hypotheses, a model was developed that could directly assess the effects of changes in financial status in the current year and previous years known as annual financial events on corporate profit.

A mixed regression panel model was used to evaluate the relationship between annual financial events and accounting profit behavior:

Equation 1:

$$PB_{it} = \beta_0 + \beta_1 \Delta ASS_{it} + \beta_2 \Delta DBT_{it} + \beta_3 \Delta EQT_{it} + \varepsilon_t$$

In the model above, PB is the annual profit behavior of the i-th company in t year,  $\Delta ASS$  is the financial events of annual changes in assets of the i-th company in t year,  $\Delta DBT$  is the financial events of annual changes in assets of the i-th company in t year, and  $\Delta EQT$  is the financial events of annual changes in equities of the i-th company in t year. The variables used in the model are presented in the following table along with their abbreviations and operational definitions and measurement methods:

Table 1. Operational definition of research variables

Row	Main Variable	Secondary Variable	Abbreviation	Measurement Method
1	Profit behavior	Net profit	NP	The company's annual net profit reflected in the profit and loss statement in t year
2		Operating profit	OP	The company's annual operating profit reflected in the profit and loss statement in t year
3	Financial events of changes in assets	Changes in cash	$\Delta CASH$	The amount of cash of the i-th company in t year minus the amount of cash in t-1 year
4		Changes in short-term investment	$\Delta SHRT.INV$	The amount of short-term investment of the i-th company in t year minus the amount of short-term investment in t-1 year
5		Changes in short-term accounts receivable	$\Delta SHRT.RES$	The number of short-term receivables of the i-th company in t year minus the number of short-term receivables in t-1 year
6		Changes in the inventory of materials and goods	$\Delta INVTR$	The amount of inventory of the i-th company in t year minus the amount of inventory in t-1 year
7		Changes in prepayments	$\Delta PRE.PAY$	The number of prepayments of the i-th company in t year minus the number of prepayments in t-1 year
8		Changes in current assets	$\Delta CUR.ASS$	The number of current assets of the i-th company in t year minus the number of current assets in t-1 year
9		Changes in long-term investment	$\Delta LONG.INV$	The amount of long-term investment of i-th company in t year minus the amount of long-term investment in t-1 year
10		Changes in long-term accounts receivable	$\Delta LONG.RES$	The long-term receivable amount of the i-th company in t year minus the long-term receivable amount in t-1 year
11		Changes in tangible fixed assets	$\Delta FIX.ASS$	The amount of tangible fixed assets of the i-th company in t year minus the amount of tangible fixed assets in t-1 year

12		Changes in intangible assets	$\Delta\text{NON.TAN G}$	The number of intangible assets of the i-th company in t year minus the number of intangible assets in t-1 year
13		Changes in other assets	$\Delta\text{OTH.ASS}$	The number of other assets of the i-th company in t year minus the number of other assets in t-1 year
14		Changes in non-current assets	$\Delta\text{NCUR.ASS}$	The amount of non-current assets of the i-th company in t year minus the amount of non-current assets in t-1 year
15		Changes in total assets	$\Delta\text{TOT.ASS}$	The total amount of assets of the i-th company in t year minus the total amount of assets in t-1 year
16		Changes in taxes payable	$\Delta\text{TAX.PAY}$	The amount of tax payable by the i-th company in t year minus the amount of tax payable in t-1 year
17		Changes in dividends payable	$\Delta\text{DPS. PAY}$	The number of dividends payable by the i-th company in t year minus the number of dividends payable in t-1 year
18		Changes in advance	$\Delta\text{ADV.N.S}$	The advance amount of the i-th company in t year minus the advance amount in t-1 year
19		Changes in short-term facilities payable	$\Delta\text{SHRT.LON}$	The number of short-term facilities of the i-th company in t year minus the number of short-term facilities in t-1 year
20	Financial events of changes in liabilities	Changes in short-term accounts payable	$\Delta\text{SHRT.PAY}$	The short-term payable amount of the i-th company in t year minus the short-term payable amount in t-1 year
21		Changes in current liabilities	$\Delta\text{CUR.DBT}$	The number of current liabilities of the i-th company in t year minus the number of current liabilities in t-1 year
22		Changes in long-term facilities payable	$\Delta\text{LONG.LON}$	The number of long-term facilities of the i-th company in year t minus the number of long-term facilities in t-1 year
23		Changes in long-term accounts payable	$\Delta\text{LONG.PAY}$	The long-term payable amount of the i-th company in t year minus the long-term payable amount in t-1 year
24		Changes in severance package reserves	$\Delta\text{EMP.RSRV}$	The amount of severance package reserve of the i-th company in t year minus the amount of severance package reserve in t-1 year
25		Changes in non-current liabilities	$\Delta\text{NCUR.DBT}$	The amount of non-current liabilities of the i-th company in t year minus the amount of non-current liabilities in t-1 year
26		Changes in total liabilities	$\Delta\text{TOT.DBT}$	The total amount of liabilities of the i-th company in t year minus the total amount of liabilities in t-1 year
27		Changes in capital	$\Delta\text{CAP}$	The amount of capital of the i-th company in t year minus the amount of capital in t-1 year
28		Changes in the legal reserve	$\Delta\text{LEG.RES}$	The legal reserve amount of the i-th company in t year minus the legal reserve amount in t-1 year
29	Financial events of change in equity	Changes in other reserves	$\Delta\text{OTH.RSRV}$	The number of other reserves of the i-th company in t year minus the number of other reserves in t-1 year
30		Changes in public law	$\Delta\text{GEN.R}$	The amount of public law of the i-th company in t year minus the amount of general salary in t-1 year
31		Changes in revaluation surplus	$\Delta\text{REV.RSRV}$	The revaluation surplus amount of the i-th company in t year minus the revaluation surplus amount in t-1 year
32		Changes in retained earnings	$\Delta\text{RET.ER}$	The amount of retained earnings of the i-th company in t year minus the amount of retained earnings in t-1 year
33		Changes in total equity	$\Delta\text{TOT.EQT}$	The total amount of equity of the i-th company in t year minus the total amount of equity in t-1 year
34	Control variable	corporate size	SIZE	The logarithm of the market value of the i-th company at the end of t year
35		corporate age	OLD	The logarithm of the age of the i-th company at the end of t year

## STATISTICAL POPULATION AND SAMPLE

Sharing several cultural and demographic similarities, Iran and Turkey are two of the most important countries in the Middle East. They both have less experience in the stock exchange, compared to European countries. In addition, they are considered as developing countries, that despite having affinities, also have noticeable differences from each other. Iran's and Turkey's GDPs in 2020 were respectively estimated at US\$203 billion and US\$720 billion, reported by the World Bank. Turkey has been able to improve its economic status since its economy has been based on its people and their economic activities. Meanwhile, Iran's economy is highly dependent on the export of crude oil. Through this scheme, Turkey has had excellent growth in downstream industries, such as clothing and textile, home appliances, and tourism.

From 2005 onward, stock companies in Turkey prepare their financial statements based on international standards. In Iran, stock companies are required to prepare financial statements based on national accounting standards. In terms of financial statement preparation based on international standards, it has been done as follows since 2016:

1. All banks, credit institutions, and insurance companies listed on Tehran Stock Exchange, whose financial period starts from March 20<sup>th</sup>, 2016, and thereafter, are obligated to prepare and present two sets of annual financial statements based on (1) financial tourism international standards (audited) and (2) accounting standards of Iran (audited).
2. All companies listed on the Tehran Stock Exchange and Iran Fara Bourse, whose financial period starts from March 20<sup>th</sup> of the current year and thereafter, and whose registered capital is 10 thousand billion Rials and more, are obligated to prepare and propose two sets of annual financial statements based on (1) international financial tourism (audited) and (2) accounting standards of Iran (audited).
3. Preparing financial statements based on international financial reporting standards is optional for other countries in the fiscal year of 2016, and the companies that will be required to prepare financial statements according to international financial reporting standards in the coming years (2016 and after) will be announced later.

In Iran, the concept of stock industrialization dates to 1936, when, at the request of Iran's government, a person called "Van Lutterfeld" assessed the possibility of the formation of a stock exchange in Iran and prepared the legal plan of the establishment and its statutes. At the same time, however, Melli Bank conducted studies in this field as the organization in charge of the country's monetary affairs. Nevertheless, their work was cut short due to the unfavorable

condition of the time and the occurrence of the Iran-Iraq war. In 1954, the task of forming the stock exchange market was appointed to the Chamber of Commerce, Industries and Mines, the Central Bank, and the Ministry of Commerce. After 12 years of study, this committee prepared the law and regulations of the Tehran Stock Exchange in 1966. The Tehran Stock Exchange Formation Bill was approved in the National Assembly in May 1966. On February 4<sup>th</sup>, 1968, Tehran Stock Exchange was established by listing stocks of “Bank of Industry and Mining” and “Naft Pars”.

Istanbul Stock Exchange is the stock exchange market of Turkey, which was launched in April 2013 by merging the Istanbul Stock Exchange and Istanbul Futures Exchange and started its activity with an initial capital of \$240 million. The roots of the establishment of Istanbul Stock Exchange date back to 1985 and the establishment of the Istanbul Stock Exchange. The central location of the Istanbul Stock Exchange is located in Sarıyer, Istanbul.

This study aimed to internationally evaluate profit behavior in financial events of companies listed on the Tehran and Istanbul Stock Exchanges.

Data related to accounting profit, control variables, and financial events were collected from the database of Tehran and Istanbul Stock Exchange, Rahavard Novin Software, and [www.kap.org.tr](http://www.kap.org.tr). The temporal and spatial scope of the present research was the time period of 2010-2019 and 121 member companies of the Tehran Stock Exchange, which was equivalent to 1210 company-year. In addition, it was the time period of 2010-2019 and 151 member companies of Istanbul Stock Exchange, which was equivalent to 1510 company-year. Based on the research objective, the information related to the mentioned period was fitted to examine the variables. Moreover, data analysis with panel data was performed in Eviews version 10.

The following criteria were considered when choosing samples from companies listed on Tehran and Istanbul Stock Exchanges.

1. The company has been listed on the stock exchange for all 10 years of research and its financial statements are available.
2. The company is not a member of the financial intermediation, insurance, banking, and investment industries.
3. March 19<sup>th</sup> is the end of the financial year of Iranian companies, and the end of December is the end of the financial year of Turkish companies, and there has been no change in the financial year.
4. The company's stocks are traded in Tehran (and Istanbul) stock exchange market in March (and December).

Table 2. Statistical population and sample (Iran and Turkey)

Title	Iran	Turkey
The number of listed companies at the end of 2019, whose financial year ends in March (December).	386	390
Will be deducted: the number of companies that have been listed on the stock market since 2011 or whose information is incomplete.	(114)	(89)
Will be deducted: the number of companies that are members of the financial intermediation, insurance, contracting, banking, and investment industries.	(151)	(140)
Selected Samples	121	151

## RESULTS

As shown in the table below, descriptive statistics of dependent, independent, and control variables measured using the data of Iranian companies investigated during the test period, included mean, minimum, maximum, standard deviation, skewness, and kurtosis. In this study, we applied the Z-score statistic to descale the data and standardize independent and dependent variables. Therefore, the standard deviation of independent and dependent variables was equal to one.

Table 3. Descriptive statistics of research variables (Iran)

Column	Variable	Mean	Maximum	Minimum	Standard Deviation	Skewness	Kurtosis
1	NP	-0.16	17.27	-10.19	1.00	7.80	140.04
2	OP	-0.18	17.76	-7.22	1.00	9.01	140.83
3	$\Delta$ CASH	-0.08	19.10	-7.17	1.00	10.12	176.62
4	$\Delta$ SHRT.INV	-0.04	13.31	-19.39	1.00	-1.87	189.33
5	$\Delta$ SHRT.RES	-0.17	15.56	-3.37	1.00	8.66	102.16
6	$\Delta$ INVTR	-0.07	31.57	-2.72	1.00	29.12	913.52
7	$\Delta$ PRE.PAY	-0.09	27.67	-4.47	1.00	20.17	543.34
8	$\Delta$ CUR.ASS	-0.12	29.35	-2.43	1.00	23.88	684.73
9	$\Delta$ LONG.INV	-0.11	27.07	-3.00	1.00	20.69	520.54
10	$\Delta$ LONG.RES	-0.03	17.83	-16.54	1.00	2.91	186.16
11	$\Delta$ FIX.ASS	-0.10	26.99	-6.80	1.00	19.86	509.28
12	$\Delta$ NON.TANG	0.00	23.88	-22.66	1.00	1.82	540.82
13	$\Delta$ OTH.ASS	0.04	8.07	-29.83	1.00	-23.79	732.89
14	$\Delta$ NCUR.ASS	-0.08	28.05	-11.71	1.00	19.22	587.37
15	$\Delta$ TOT.ASS	-0.16	23.74	-1.49	1.00	16.26	337.91
16	$\Delta$ TAX.PAY	-0.09	21.02	-8.40	1.00	10.64	211.75
17	$\Delta$ DPS.PAY	-0.04	17.05	-8.50	1.00	5.25	108.30
18	$\Delta$ ADV.N.S	-0.08	19.98	-5.25	1.00	14.90	265.75
19	$\Delta$ SHRT.LON	-0.12	14.82	-4.80	1.00	8.67	112.44
20	$\Delta$ SHRT.PAY	-0.14	18.29	-4.93	1.00	9.62	140.18
21	$\Delta$ CUR.DBT	-0.17	15.46	-2.56	1.00	8.81	101.83

22	ΔLONG.LON	-0.06	18.17	-7.93	1.00	7.15	127.62
23	ΔLONG.PAY	-0.06	17.26	-16.46	1.00	6.04	224.33
24	ΔEMP.RSRV	-0.18	16.98	-0.58	1.00	10.62	137.95
25	ΔNCUR.DBT	-0.09	17.67	-14.75	1.00	6.89	190.37
26	ΔTOT.DBT	-0.17	15.25	-2.20	1.00	9.99	125.12
27	ΔCAP	-0.09	30.40	-0.12	1.00	26.62	789.45
28	ΔLEG.RES	-0.13	23.48	-5.85	1.00	17.08	366.70
29	ΔOTH.RSRV	-0.01	18.88	-24.11	1.00	-6.63	431.49
30	ΔGEN.R	0.00	23.05	-23.61	1.00	-0.84	544.61
31	ΔREV.RSRV	-0.03	10.25	-9.95	1.00	1.84	75.74
32	ΔRET.ER	-0.04	11.14	-18.57	1.00	-5.80	169.63
33	ΔTOT.EQT	-0.11	23.32	-9.07	1.00	13.98	308.24
34	SIZE	6.20	8.98	4.61	0.79	0.45	2.95
35	OLD	1.62	1.84	0.70	0.19	-0.89	3.37

As observed in the table below, descriptive statistics of dependent, independent, and control variables measured using the data of Turkish companies investigated during the test period included mean, minimum, maximum, standard deviation, skewness, and kurtosis. In this study, Z-score statistic was used to descale data and standardized dependent and independent variables. Therefore, the standard deviation of independent and dependent variables was equal to one.

Table 4. Descriptive statistics of research variables (Turkey)

Column	Variable	Mean	Maximum	Minimum	Standard Deviation	Skewness	Kurtosis
n		n	m	m		s	s
1	NP	-0.24	13.12	-3.99	1.00	6.57	61.26
2	OP	-0.29	11.11	-1.59	1.00	5.88	45.42
3	ΔCASH	-0.14	12.17	-12.59	1.00	2.74	61.21
4	ΔSHRT.INV	-0.04	26.06	-7.36	1.00	14.35	376.36
5	ΔSHRT.TRDRES	-0.19	13.07	-8.76	1.00	4.58	58.94
6	ΔSHRT.OTRRES	-0.04	28.99	-10.31	1.00	17.65	536.76
7	ΔINVTR	-0.19	18.37	-5.44	1.00	8.75	123.20
8	ΔDF.TX.ASS	-0.14	19.49	-3.11	1.00	13.82	236.74
9	ΔOTH.CUR.ASS	-0.07	19.96	-12.15	1.00	6.04	165.58
10	ΔCUR.ASS	-0.22	14.89	-4.44	1.00	7.45	79.65
11	ΔLONG.INV	-0.13	13.91	-11.93	1.00	0.94	76.15
12	ΔFIX.ASS	-0.13	23.90	-0.69	1.00	17.84	371.70
13	ΔNON.TANG	-0.09	26.58	-5.73	1.00	18.72	436.15
14	ΔOTH.ASS	-0.11	20.04	-8.07	1.00	11.53	191.43
15	ΔNCUR.ASS	-0.15	22.29	-1.37	1.00	16.23	323.17
16	ΔTOT.ASS	-0.19	20.59	-1.36	1.00	13.72	246.99
17	ΔDF.TX.DBT	-0.12	21.86	-2.50	1.00	14.15	248.61
18	ΔSHRT.LON	-0.14	14.12	-4.92	1.00	7.91	101.38
19	ΔSHRT.PAY	-0.16	27.97	-4.95	1.00	17.33	458.49
20	ΔOTH.CUR.DBT	-0.11	18.93	-8.86	1.00	6.18	128.19
21	ΔCUR.DBT	-0.19	17.52	-2.88	1.00	9.79	139.82
22	ΔLONG.LON	-0.12	22.46	-5.36	1.00	15.83	318.61
23	ΔLONG.PAY	-0.04	28.07	-12.54	1.00	17.44	509.36

24	$\Delta$ NCUR.PROV	-0.19	17.95	-4.91	1.00	8.25	121.53
25	$\Delta$ OTH.NCUR.DB T	-0.04	15.44	-14.47	1.00	3.21	115.19
26	$\Delta$ NCUR.DBT	-0.13	22.59	-4.75	1.00	16.45	336.24
27	$\Delta$ TOT.DBT	-0.17	20.95	-1.39	1.00	14.78	278.73
28	$\Delta$ CAP	-0.17	17.58	-3.43	1.00	9.27	116.41
29	$\Delta$ OTH.RSRV	-0.09	19.88	-22.16	1.00	-0.64	312.96
30	$\Delta$ INFL.ADJ.CAP	0.09	0.55	-22.21	1.00	-15.77	286.68
31	$\Delta$ RET.ER	-0.15	13.34	-10.11	1.00	5.09	75.28
32	$\Delta$ OTH.EQT	-0.15	14.87	-2.47	1.00	9.93	120.86
33	$\Delta$ TOT.EQT	-0.19	16.39	-2.65	1.00	10.08	133.65
34	SIZE	8.43	10.54	6.37	0.81	0.32	2.73
35	OLD	1.65	2.09	0.85	0.18	-0.57	3.82

### Constancy Test Results

Statistics such as Levene's test were used to assess the consistency of variables, the results of which are presented in the table below. The null hypothesis of the research was developed based on a lack of reliability. The results demonstrated that a number of variables were at a consistent level, which became consistent with one round of differentiation.

Table 5. Variable consistency test results (Iran)

Row	Variable	Levene's test	Results	Row	Variable	Levene's test	Results
1	NP	0.0001	Consistent	18	$\Delta$ ADV.N.S	0.0000	Consistent
2	OP	0.0000	Consistent	19	$\Delta$ SHRT.LON	0.0000	Consistent
3	$\Delta$ CASH	0.0000	Consistent	20	$\Delta$ SHRT.PAY	0.0000	Consistent
4	$\Delta$ SHRT.INV	0.0000	Consistent	21	$\Delta$ CUR.DBT	0.0015	Consistent
5	$\Delta$ SHRT.RES	0.0000	Consistent	22	$\Delta$ LONG.LON	0.0000	Consistent
6	$\Delta$ INVTR	0.0000	Consistent	23	$\Delta$ LONG.PAY	0.0000	Consistent
7	$\Delta$ PRE.PAY	0.0000	Consistent	24	$\Delta$ EMP.RSRV	0.0000	Consistent
8	$\Delta$ CUR.ASS	0.0000	Consistent	25	$\Delta$ NCUR.DBT	0.0000	Consistent
9	$\Delta$ LONG.INV	0.0000	Consistent	26	$\Delta$ TOT.DBT	0.0000	Consistent
10	$\Delta$ LONG.RES	0.0000	Consistent	27	$\Delta$ CAP	0.0000	Consistent
11	$\Delta$ FIX.ASS	0.0000	Consistent	28	$\Delta$ LEG.RES	0.0321	Consistent
12	$\Delta$ NON.TANG	0.0000	Consistent	29	$\Delta$ OTH.RSRV	0.0000	Consistent
13	$\Delta$ OTH.ASS	0.0000	Consistent	30	$\Delta$ GEN.R	0.0020	Consistent
14	$\Delta$ NCUR.ASS	0.0000	Consistent	31	$\Delta$ REV.RSRV	0.0000	Consistent
15	$\Delta$ TOT.ASS	0.0000	Consistent	32	$\Delta$ RET.ER	0.0000	Consistent
16	$\Delta$ TAX.PAY	0.0000	Consistent	33	$\Delta$ TOT.EQT	0.0000	Consistent
17	$\Delta$ DPS. PAY	0.0000	Consistent				

Levene's test results regarding the variables of Iranian companies showed their consistency based on the statistical probability value of less than 0.05, and all the variables related to accounting profit and financial events were consistent. The Kao test was applied to assess the cointegration among the variables. Finally, the  $H_0$  hypothesis of lack of cointegration was rejected based on the mentioned outputs since the probability value of the statistic was



below 0.05. Therefore, our findings were cointegrated and had a long-term equilibrium relationship with each other. This ensured a lack of false regression.

Table 6. Variable consistency test results (Turkey)

Row	Variable	Levene's test	Result	Row	Variable	Levene's test	Result
1	NP	0.0000	Consistent	18	$\Delta$ SHRT.LON	0.0000	Consistent
2	OP	0.0000	Consistent	19	$\Delta$ SHRT.PAY	0.0000	Consistent
3	$\Delta$ CASH	0.0000	Consistent	20	$\Delta$ OTH.CUR.DBT	0.0000	Consistent
4	$\Delta$ SHRT.INV	0.0000	Consistent	21	$\Delta$ CUR.DBT	0.0000	Consistent
5	$\Delta$ SHRT.TRDRES	0.0000	Consistent	22	$\Delta$ LONG.LON	0.0000	Consistent
6	$\Delta$ SHRT.OTRRES	0.0000	Consistent	23	$\Delta$ LONG.PAY	0.0000	Consistent
7	$\Delta$ INVTR	0.0000	Consistent	24	$\Delta$ NCUR.PROV	0.0000	Consistent
8	$\Delta$ DF.TX.ASS	0.0000	Consistent	25	$\Delta$ OTH.NCUR.DBT	0.0000	Consistent
9	$\Delta$ OTH.CUR.ASS	0.0000	Consistent	26	$\Delta$ NCUR.DBT	0.0000	Consistent
10	$\Delta$ CUR.ASS	0.0000	Consistent	27	$\Delta$ TOT.DBT	0.0000	Consistent
11	$\Delta$ LONG.INV	0.0000	Consistent	28	$\Delta$ CAP	0.0000	Consistent
12	$\Delta$ FIX.ASS	0.0000	Consistent	29	$\Delta$ OTH.RSRV	0.0000	Consistent
13	$\Delta$ NON.TANG	0.0000	Consistent	30	$\Delta$ INFL.ADJ.CAP	0.0000	Consistent
14	$\Delta$ OTH.ASS	0.0000	Consistent	31	$\Delta$ RET.ER	0.0000	Consistent
15	$\Delta$ NCUR.ASS	0.0000	Consistent	32	$\Delta$ OTH.EQT	0.0000	Consistent
16	$\Delta$ TOT.ASS	0.0000	Consistent	33	$\Delta$ TOT.EQT	0.0000	Consistent
17	$\Delta$ DF.TX.DBT	0.0000	Consistent				

Levene's test results regarding the variables of Turkish companies showed their consistency based on the statistical probability value of less than 0.05, and all the variables related to accounting profit and financial events were consistent.

The Kao test was applied to assess the co-integration among the variables. Finally, the  $H_0$  hypothesis of lack of co-integration was rejected based on the mentioned outputs since the probability value of the statistic was below 0.05. Therefore, our findings were co-integrated and had a long-term equilibrium relationship with each other. This ensured a lack of false regression.

Table 7. Kao panel co-integration test results

Companies	T statistic	Probability	Statistic
Iranian	-26.35344	0.000	ADF
Turkish	-20.94020	0.000	ADF

Determining the Model Type (no effects, fixed effects, random effects)

In this study, the model was estimated using the data panel technique. According to the panel data econometrics literature, it is necessary to test the homogeneity of the data by using the F-test before estimating the model. Therefore, the panel data estimation method was applied. According to the results, since the null hypothesis expressing the equality of individual

effects was rejected, the proper model for estimating the considered model was in the panel class, not the pool. Based on the Hausman test results, the assessed model had fixed effects.

Table 8. Limer and Hausman test results (Iran and Turkey)

Title	Limer Test			Hausman Test		
	Limer test statistic	Level of significance	Selected model	Hausman test	Level of Significance	Selected model
First Hypothesis – Iran	13.28	0.0000	Panel Data	1555.77	0.0000	Fixed Effects
Third Hypothesis – Iran	10.82	0.0000	Panel Data	1264.03	0.0000	Fixed Effects
Fifth Hypothesis – Iran	13.17	0.0000	Panel Data	1541.24	0.0000	Fixed Effects
Second Hypothesis – Turkey	11.64	0.0000	Panel Data	1026.39	0.0000	Fixed Effects
Fourth Hypothesis – Turkey	25.62	0.0000	Panel Data	41.34	0.0022	Fixed Effects
Sixth Hypothesis – Turkey	42.77	0.0000	Panel Data	86.62	0.0000	Fixed Effects

According to Table 6, the Limer test results indicated that panel data was the chosen model in all hypotheses. In addition, based on the Hausman test results, the fixed effects method was recognized as the best technique used for model estimation in panel data.

### Classical Regression Hypothesis Tests

We must first test the regression hypotheses before assessing regression model fitting. First, the model's hypotheses should be checked to confirm the accuracy of the results and ensure the reliability of the estimation results of the regression model before interpreting them.

### Lack of autocorrelation in remainders

Results of the heteroscedasticity test are presented in the table below. As observed, there is heterogeneity in this variance model due to a probability level of less than 0.05.

Table 9. Heteroscedasticity test results (Iran and Turkey)

Companies	White	Brush-Godfrey
Iranian	0.0000	0.0000
Turkish	0.0000	0.0000

According to White and Brush-Godfrey test results regarding variance heterogeneity of the variables, the necessary modifications had to be made in the model to solve this problem.

Therefore, the Generalized Least Squares (GLS) method was used to solve the variance heterogeneity problem and implement the regression model.

### Lack of Collinearity between Explanatory Variables

In this study, the variance inflation factor (VIF) was used to evaluate the lack of collinearity. In general, a lack of collinearity is confirmed when an index is below 10. The VIF of variables of Iranian companies is presented in Table 7.

Table 10. VIF results (Iran)

Row	Variable	VIF	Row	Variable	VIF
1	$\Delta$ CASH	2.68	17	$\Delta$ SHRT.LON	4.98
2	$\Delta$ SHRT.INV	1.75	18	$\Delta$ SHRT.PAY	1.93
3	$\Delta$ SHRT.RES	1.66	19	$\Delta$ CUR.DBT	123.09
4	$\Delta$ INVTR	66.31	20	$\Delta$ LONG.LON	52.61
5	$\Delta$ PRE.PAY	3.29	21	$\Delta$ LONG.PAY	581.46
6	$\Delta$ CUR.ASS	520.70	22	$\Delta$ EMP.RSRV	3.48
7	$\Delta$ LONG.INV	10.82	23	$\Delta$ NCUR.DBT	675.44
8	$\Delta$ LONG.RES	1.90	24	$\Delta$ TOT.DBT	4.53
9	$\Delta$ FIX.ASS	8.13	25	$\Delta$ CAP	337.14
10	$\Delta$ NON.TANG	1.00	26	$\Delta$ LEG.RES	7.21
11	$\Delta$ OTH.ASS	38.49	27	$\Delta$ OTH.RSRV	4.35
12	$\Delta$ NCUR.ASS	481.78	28	$\Delta$ GEN.R	19.80
13	$\Delta$ TOT.ASS	502.25	29	$\Delta$ REV.RSRV	1.00
14	$\Delta$ TAX.PAY	2.27	30	$\Delta$ RET.ER	89.49
15	$\Delta$ DPS.PAY	1.62	31	$\Delta$ TOT.EQT	1.61
16	$\Delta$ ADV.N.S	5.13			

According to the above table results, 13 out of 31 independent variables were removed from the model due to the index above 10. These variables included changes in inventory of materials and goods, changes in current assets, changes in long-term investment, changes in other assets, changes in non-current assets, changes in total assets, changes in current liabilities, changes in long-term facilities received, changes in long-term liabilities, changes in non-current liabilities, capital changes, public law changes, and surplus revaluation changes. Table 8 shows the VIF of variables of Turkish companies.

Table 11. VIF results (Turkey)

Row	Variable	VIF	Row	Variable	VIF
1	$\Delta$ CASH	7.21	17	$\Delta$ SHRT.PAY	269.90
2	$\Delta$ SHRT.INV	2.33	18	$\Delta$ OTH.CUR.DBT	3.20
3	$\Delta$ SHRT.TRDRES	1.63	19	$\Delta$ CUR.DBT	98306.72
4	$\Delta$ SHRT.OTRRES	3.37	20	$\Delta$ LONG.LON	127090.2
5	$\Delta$ INVTR	7.19	21	$\Delta$ LONG.PAY	1.03
6	$\Delta$ DF.TX.ASS	1.32	22	$\Delta$ NCUR.PROV	95.46
7	$\Delta$ OTH.CUR.ASS	2.09	23	$\Delta$ OTH.NCUR.DBT	1227.15
8	$\Delta$ CUR.ASS	90883.38	24	$\Delta$ NCUR.DBT	10.20

9	$\Delta$ LONG.INV	1.29	25	$\Delta$ TOT.DBT	400018.4
10	$\Delta$ FIX.ASS	76.35	26	$\Delta$ CAP	585.93
11	$\Delta$ NON.TANG	6.22	27	$\Delta$ OTH.RSRV	751.59
12	$\Delta$ OTH.ASS	5.91	28	$\Delta$ INFL.ADJ.CAP	65.29
13	$\Delta$ NCUR.ASS	453551.5	29	$\Delta$ RET.ER	21197.71
14	$\Delta$ TOT.ASS	787246.2	30	$\Delta$ OTH.EQT	48755.08
15	$\Delta$ DF.TX.DBT	2431.84	31	$\Delta$ TOT.EQT	93170.11
16	$\Delta$ SHRT.LON	5.80			

According to the above table results, 18 out of 31 independent variables were eliminated due to an index above 10. These variables were changes in current assets, changes in tangible fixed assets, changes in non-current assets, changes in total assets, changes in deferred tax liabilities, changes in short-term accounts payable, changes in current liabilities, changes in long-term facilities received, changes in non-current reserves, changes in other non-current liabilities, changes in the entire non-current liabilities, changes in total liabilities, changes in capital, changes in reserves, changes in capital inflation adjustment, changes in retained earnings, changes in other equity and changes in total equity.

Following assessing the classic assumptions, the results of fitting the regression model of the research and accordingly the hypotheses of the research were examined and tested.

### Testing for normality of the error terms

In this section, the Jarque-Bera test was used to test for the normality of the error terms. According to the results, the null hypothesis expressing the normality of error terms was rejected in all hypotheses. Given the use of the GLS method for the estimation of models, this assumption is no longer necessary and can be omitted. Table 9 shows the results of testing for normality of error terms for Iranian and Turkish companies.

Table 12. Results of testing for normality of error terms (Iran and Turkey)

Model	Country	Test Type	Statistic	P-Value	Result
First Hypothesis	Iran	Jarque-Bera test	304.14	0.0000	Rejection of the normal hypothesis
Third Hypothesis	Iran	Jarque-Bera test	426.49	0.0000	Rejection of the normal hypothesis
Fifth Hypothesis	Iran	Jarque-Bera test	73132.57	0.0000	Rejection of the normal hypothesis
Second Hypothesis	Turkey	Jarque-Bera test	152.29	0.0000	Rejection of the normal hypothesis
Fourth Hypothesis	Turkey	Jarque-Bera test	217283.4	0.0000	Rejection of the normal hypothesis

Sixth Hypothesis	Turkey	Jarque-Bera test	83787.79	0.0000	Rejection of the normal hypothesis
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### Research Hypothesis Test

**Hypothesis 1-1:** Change in each of the items of the company's annual financial events has a significant impact on the net accounting profit of Iranian companies. Panel data multivariate regression was used to test the hypotheses, and according to the results of the joint effects test, the fixed effects panel method and the GLS method were used to estimate the regression model of this hypothesis. Considering the elimination of 13 variables of Iranian companies by VIF, the remaining 18 independent variables were used to estimate the model. Table 10 shows the results of panel data model estimation for Iranian companies with the dependent variable of net profit.

Table 13. Data panel model estimation results for the first hypothesis – net profit (Iran)

Variable	Estimated Coefficient	Standard Error	T statistic	Probability	Result
$\Delta$ ADV.N.S	-0.022621	0.019841	-1.140110	0.2546	Rejected
$\Delta$ CASH	0.034425	0.009624	3.577141	0.0004	Confirmed
$\Delta$ DPS.PAY	0.069683	0.009101	7.656418	0.0000	Confirmed
$\Delta$ FIX.ASS	-0.402567	0.031581	-12.74721	0.0000	Confirmed
$\Delta$ LEG.RES	0.312014	0.022121	14.10482	0.0000	Confirmed
$\Delta$ LONG.RES	0.051883	0.014141	3.668976	0.0003	Confirmed
$\Delta$ NON.TANG	-0.147470	0.026884	-5.485385	0.0000	Confirmed
$\Delta$ OTH.RSRV	0.013998	0.014249	0.982397	0.3262	Rejected
$\Delta$ EMP.RSRV	-0.036967	0.012748	-2.899924	0.0038	Confirmed
$\Delta$ PRE.PAY	-0.004374	0.005285	-0.827742	0.4081	Rejected
$\Delta$ REV.RSRV	0.006116	0.002734	2.237103	0.0255	Confirmed
$\Delta$ SHRT.INV	0.048543	0.007250	6.695489	0.0000	Confirmed
$\Delta$ SHRT.LON	-0.017887	0.009011	-1.985038	0.0475	Confirmed
$\Delta$ SHRT.PAY	-0.001791	0.016404	-0.109194	0.9131	Rejected
$\Delta$ SHRT.RES	0.052844	0.010420	5.071439	0.0000	Confirmed
$\Delta$ TAX.PAY	0.090368	0.010228	8.835057	0.0000	Confirmed
$\Delta$ TOT.EQT	0.529018	0.037660	14.04732	0.0000	Confirmed
$\Delta$ TOT.DBT	0.010847	0.039351	0.275644	0.7829	Rejected
C	0.010726	0.001587	6.759626	0.0000	
AR (1)	0.251883	0.048381	5.206266	0.0000	
Coefficient of Determination			0.909870		
Adjusted Coefficient of Determination			0.894740		
Durbin-Watson Test			1.874974		
F Statistic			60.13483		
Level of Significance			0.000000		

Results of testing the first hypothesis are observed in the table above. The model was estimated using the GLS. As observed in the table, the adjusted coefficient of determination showed that the independent variables explained 89% of the changes in the dependent variable. In addition, F statistic was equal to 60.13 and indicated the overall significance of the model at a significance level of 0.0000. Moreover, the Durbin-Watson statistic was equal to 1.87, which indicated a lack of first-order autocorrelation in error terms in the model. According to the Durbin-Watson test, the problem of autocorrelation was eliminated by adding the AR(1) parameter. Therefore, the dependent variable of net profit in companies listed on the Tehran Stock Exchange was significantly explained by financial events. Table 10 shows the significant effect of each of the 18 independent variables, five variables of changes in advances, changes in other reserves, changes in prepayments, changes in short-term payables, and changes in total liabilities were insignificant, and 13 remaining variables were significant.

**Hypothesis 1-2:** change in each of the items of annual financial events of the company significantly affected the net accounting of Turkish companies. Panel data multivariate regression was used to test the hypotheses, and according to the results of the joint effects test, the fixed effects panel method and GLS were used to estimate the regression model of this hypothesis. Considering the elimination of 18 variables of Turkish companies by VIF, the remaining 13 independent variables were used for model estimation. Table 11 shows the panel data model estimation results for Turkish companies using the dependent variable of net profit.

Table 14. Panel data model estimation results for the second hypothesis – net profit (Turkey)

Variable	Estimated Coefficient	Standard Error	T statistic	Probability	Result
$\Delta$ CASH	0.165399	0.022581	7.324788	0.0000	Confirmed
$\Delta$ SHRT.LON	-0.120100	0.015500	-7.748455	0.0000	Confirmed
$\Delta$ SHRT.INV	0.019372	0.018429	1.051153	0.2934	Rejecter
$\Delta$ NON.TANG	0.125948	0.030429	4.139088	0.0000	Confirmed
$\Delta$ INVTR	0.170101	0.016980	10.01752	0.0000	Confirmed
$\Delta$ LONG.INV	-0.002606	0.003952	-0.659450	0.5098	Rejecter
$\Delta$ OOTH.CUR.ASS	0.046313	0.010227	4.528672	0.0000	Confirmed
$\Delta$ OOTH.CUR.DBT	-0.075583	0.009533	-7.928880	0.0000	Confirmed
$\Delta$ OOTH.ASS	0.092523	0.020032	4.618818	0.0000	Confirmed
$\Delta$ SHRT.OTRRES	0.144390	0.019753	7.309840	0.0000	Confirmed
$\Delta$ TOT.ASS	0.314238	0.082253	3.820375	0.0001	Confirmed
$\Delta$ SHRT.PAY	-0.250713	0.019659	-12.75319	0.0000	Confirmed

$\Delta$ SHRT.TRDRES	0.092747	0.012770	7.262654	0.0000	Confirmed
C	0.018938	0.002444	7.747963	0.0000	
AR(1)	0.232842	0.037414	6.223382	0.0000	
Coefficient of Determination				0.795818	
Adjusted Coefficient of Determination				0.763454	
Durbin-Watson Test				1.922293	
F Statistic				24.59019	
Level of Significance				0.000000	

The results of testing the second hypothesis are presented in the table above. The model was estimated using the GLS. As observed in the table, the adjusted coefficient of determination revealed that the independent variable explained 76% of changes in the dependent variable. Moreover, the F statistic was equal to 24.59 and showed the significance of the model at a significance level of 0.0000. In addition, the Durbin-Watson statistic was estimated at 1.92, which indicated a lack of first-order autocorrelation in error terms of the model. According to the results obtained by the Durbin-Watson test, the autocorrelation problem was eliminated by adding the AR(1) parameter. Therefore, it could be expressed that the dependent variable of net profit in companies listed on the Istanbul Stock Exchange was significantly determined by financial events. Table 11 shows the significant effect of each of the 13 independent variables of Turkish companies, and two variables of changes in short-term investment and changes in long-term investment had no significant relationship, and the remaining 11 variables were significant.

**Hypothesis 2-1:** Change in each of the items of the company's annual financial events has a significant impact on the accounting operating profit of Iranian companies.

The multivariate panel data regression was used to test the hypotheses, and fixed effect panel data was applied based on the results of the joint effects test. In addition, the GLS was exploited to estimate the regression model of the hypothesis. Considering the elimination of 13 variables of Iranian companies by VIF, the remaining 18 independent variables were used for model estimation. Table 13 shows the results of panel data model estimation for Iranian companies using the dependent variable of operating profit.

Table 15. Results of panel data model estimation for the third hypothesis – operating profit (Iran)

Variable	Estimated Coefficient	Standard Error	T Statistic	Probability	Result
$\Delta$ ADV.N.S	0.027273	0.018675	1.460415	0.1446	Rejected
$\Delta$ CASH	0.033227	0.009181	3.618960	0.0003	Confirmed
$\Delta$ DPS.PAY	0.051816	0.009067	5.714751	0.0000	Confirmed
$\Delta$ FIX.ASS	-0.314616	0.028476	-11.04835	0.0000	Confirmed
$\Delta$ LEG.RES	0.292520	0.024384	11.99645	0.0000	Confirmed
$\Delta$ LONG.RES	0.041514	0.011294	3.675675	0.0003	Confirmed
$\Delta$ NON.TANG	-0.112334	0.022311	-5.035025	0.0000	Confirmed
$\Delta$ OTH.RSRV	0.028353	0.018269	1.552003	0.1210	Rejected
$\Delta$ EMP.RSRV	-0.027889	0.010718	-2.601997	0.0094	Confirmed
$\Delta$ PRE.PAY	-0.000138	0.005091	-0.027083	0.9784	Rejected
$\Delta$ REV.RSRV	0.007617	0.002482	3.068957	0.0022	Confirmed
$\Delta$ SHRT.INV	0.030335	0.007486	4.052031	0.0001	Confirmed
$\Delta$ SHRT.LON	0.006537	0.009102	0.718178	0.4729	Rejected
$\Delta$ SHRT.PAY	0.023956	0.014699	1.629781	0.1035	Rejected
$\Delta$ SHRT.RES	0.043226	0.009862	4.382918	0.0000	Confirmed
$\Delta$ TAX.PAY	0.122082	0.010415	11.72134	0.0000	Confirmed
$\Delta$ TOT.EQT	0.365988	0.034605	10.57626	0.0000	Confirmed
$\Delta$ TOT.DBT	-0.022901	0.036353	-0.629953	0.5289	Rejected
C	0.017834	0.002753	6.478453	0.0000	
AR(1)	0.363511	0.048194	7.542693	0.0000	
Coefficient of Determination			0.928428		
Adjusted Coefficient of Determination			0.916413		
Durbin-Watson			1.854228		
F Statistic			77.27159		
Level of Significance			0.000000		

The results of testing the first hypothesis are shown in the table above. The model was estimated by using the GLS. According to the table, the adjusted coefficient of determination showed that the independent variables explained 92% of changes in the dependent variable. Moreover, the F statistic was equal to 77.27 and showed the significance of the entire model at a significance level of 0.000. Furthermore, the Durbin-Watson statistic was equal to 1.85, which indicated a lack of first-order autocorrelation in the error terms of the model. According to the results obtained from the Durbin-Watson test, the autocorrelation problem was eliminated by adding the AR(1) parameter. Therefore, the dependent variable of operating profit in companies listed on the Tehran Stock Exchange was significantly determined by financial events. Table 13 shows the significant impact of each of the 18 independent variables, and there was no significant relationship between the six variables of changes in advances, changes in other reserves, changes in prepayments, changes in short-term financial facilities, changes in short-term payables, and changes in the entire liabilities. However, the remaining 12 variables were significant.

**Hypothesis 2-2:** change in each of the items of the company's annual financial events has a significant impact on the accounting operating profit of Turkish companies.



The panel data multivariate regression was used to test the hypotheses, and the fixed effect panel method was exploited based on the results of the joint effects test. Moreover, the GLS technique was applied to estimate the regression model of the hypothesis. Considering the elimination of 18 variables of Turkish companies by VIF, the remaining 13 independent variables were used for model estimation. Table 14 shows the results of panel data model estimation results for Turkish companies by using the dependent variable of operating profit.

Table 16. Results of data panel model estimation for the fourth hypothesis – operating profit (Turkey)

Variable	Estimated Coefficient	Standard Error	T Statistic	Probability	Results
$\Delta$ CASH	0.093637	0.013358	7.009726	0.0000	Confirmed
$\Delta$ SHRT.LON	-0.054379	0.008299	-6.552839	0.0000	Confirmed
$\Delta$ SHRT.INV	-0.019852	0.008628	-2.300731	0.0216	Confirmed
$\Delta$ NON.TANG	0.032619	0.013649	2.389896	0.0170	Confirmed
$\Delta$ INVTR	0.111591	0.009330	11.96057	0.0000	Confirmed
$\Delta$ LONG.INV	-0.000977	0.002176	-0.449152	0.6534	Rejected
$\Delta$ OTH.CUR.ASS	0.023066	0.007198	3.204711	0.0014	Confirmed
$\Delta$ OTH.CUR.DBT	-0.023176	0.006831	-3.392739	0.0007	Confirmed
$\Delta$ OTH.ASS	0.091395	0.013083	6.985880	0.0000	Confirmed
$\Delta$ SHRT.OTRRES	0.068346	0.011302	6.047234	0.0000	Confirmed
$\Delta$ TOT.ASS	-0.057519	0.048990	-1.174104	0.2406	Rejected
$\Delta$ SHRT.PAY	-0.098823	0.011519	-8.578821	0.0000	Confirmed
$\Delta$ SHRT.TRDRES	0.067605	0.007872	8.588113	0.0000	Confirmed
C	0.211686	0.042006	5.039465	0.0000	
AR(1)	0.793967	0.034363	23.10515	0.0000	
Coefficient of Determination			0.892250		
Adjusted Coefficient of Determination			0.875172		
Durbin-Watson			2.127337		
F Statistic			52.24411		
Level of Significance			0.000000		

Results of testing the fourth hypothesis are presented in the table above. This model was estimated by using the GLS. According to the results, the GLS revealed that the independent variables explained 87% of changes in the dependent variable. Moreover, the F statistic was equal to 52.24 and demonstrated the significance of the entire model at a significance level of 0.0000. Moreover, a Durbin-Watson statistic of 2.13 was indicative of a lack of first-order

autocorrelation in the error terms of the model. In this regard, the autocorrelation problem was eliminated by adding the AR(1) parameter. Therefore, it could be expressed that the dependent variable of operating profit in companies listed on Istanbul Stock Exchange was significantly explained by financial events. Table 14 shows the significant impact of each of the 13 independent variables of Turkish companies, and there was no significant relationship between the two variables of changes in long-term investment and changes in the total assets. Moreover, the remaining 11 variables were significant.

**Hypothesis 3-1:** the accounting net profit behavior reaction to financial events is higher in Turkish companies, compared to Iranian companies.

Table 12 shows the comparison of results of panel data model estimation for Iranian and Turkish companies in relation to the dependent variable of profit.

Table 17. A comparison of results of panel data model estimation for the first and second hypotheses of net profit (Iran and Turkey)

Column	Confirmed Variables of Iran	Probability	Confirmed Variables of Turkey	Probability
1	$\Delta$ CASH	0.0004	$\Delta$ CASH	0.0000
2	$\Delta$ SHRT.LON	0.0475	$\Delta$ SHRT.LON	0.0000
3	$\Delta$ NON.TANG	0.0000	$\Delta$ NON.TANG	0.0000
4	$\Delta$ LEG.RES	0.0000	$\Delta$ INVTR	0.0000
5	$\Delta$ LONG.RES	0.0003	$\Delta$ OTH.CUR.ASS	0.0000
6	$\Delta$ FIX.ASS	0.0000	$\Delta$ OTH.CUR.DBT	0.0000
7	$\Delta$ EMP.RSRV	0.0038	$\Delta$ OTH.ASS	0.0000
8	$\Delta$ REV.RSRV	0.0255	$\Delta$ SHRT.OTRRES	0.0000
9	$\Delta$ SHRT.INV	0.0000	$\Delta$ TOT.ASS	0.0001
10	$\Delta$ DPS.PAY	0.0000	$\Delta$ SHRT.PAY	0.0000
11	$\Delta$ SHRT.RES	0.0000	$\Delta$ SHRT.TRDRES	0.0000
12	$\Delta$ TAX.PAY	0.0000		
13	$\Delta$ TOT.EQT	0.0000		
	Coefficient of Determination	0.909870	Coefficient of Determination	0.795818
	Adjusted Coefficient of Determination	0.894740	Adjusted Coefficient of Determination	0.763454
	Durbin-Watson	1.874974	Durbin-Watson	1.922293
	F Statistic	60.13483	F Statistic	24.59019
	Level of Significance	0.000000	Level of Significance	0.000000

According to the results, there was a significant relationship with a relatively high adjusted coefficient of determination in the companies of both countries using the panel data model and between financial events and net profit variable. In addition, 13 independent variables in Iranian companies and 11 independent variables in Turkish companies were significant, and the adjusted coefficient of determination of Iranian companies was 89%, which demonstrated a higher coefficient of determination compared to the coefficient of determination of Turkish companies (76%).

**Hypothesis 3-2:** the reaction of accounting operating profit behavior to financial events is higher in Turkish companies, compared to Iranian companies.

Table 15 shows a comparison of panel data model estimation results for Iranian and Turkish companies in terms of the dependent variable of profit.

Table 18. A comparison of panel data model estimation results for the third and fourth hypotheses – operating profit (Iran and Turkey)

Column	Confirmed Variables of Iran	Probability	Confirmed Variables of Turkey	Probability
1	$\Delta$ CASH	0.0003	$\Delta$ CASH	0.0000
2	$\Delta$ SHRT.INV	0.0001	$\Delta$ SHRT.INV	0.0216
3	$\Delta$ NON.TANG	0.0000	$\Delta$ NON.TANG	0.0170
4	$\Delta$ DPS.PAY	0.0000	$\Delta$ SHRT.LON	0.0000
5	$\Delta$ LEG.RES	0.0000	$\Delta$ OOTH.CUR.ASS	0.0014
6	$\Delta$ LONG.RES	0.0003	$\Delta$ INVTR	0.0000
7	$\Delta$ EMP.RSRV	0.0094	$\Delta$ OOTH.CUR.DBT	0.0007
8	$\Delta$ REV.RSRV	0.0022	$\Delta$ OOTH.ASS	0.0000
9	$\Delta$ FIX.ASS	0.0000	$\Delta$ SHRT.OTRRES	0.0000
10	$\Delta$ SHRT.RES	0.0000	$\Delta$ SHRT.PAY	0.0000
11	$\Delta$ TAX.PAY	0.0000	$\Delta$ SHRT.TRDRES	0.0000
12	$\Delta$ TOT.EQT	0.0000		
	Coefficient of Determination	0.928428	Coefficient of Determination	0.892250
	Adjusted Coefficient of Determination	0.916413	Adjusted Coefficient of Determination	0.875172
	Durbin-Watson	1.854228	Durbin-Watson	2.127337
	F Statistic	77.27159	F Statistic	52.24411
	Level of Significance	0.000000	Level of Significance	Level of Significance

According to the results, there was a significant relationship and with a relatively high adjusted coefficient of determination in companies of the two countries using the panel data model and between financial events and operating profit variable. In addition, 12 independent variables in Iranian companies and 11 independent variables in Turkish companies were significant and the adjusted coefficient of determination of Iranian companies was 92%, which showed a higher coefficient of determination compared to the coefficient of determination of Turkish companies (87%).

### Effect of Control Variables on Panel Models

The effect of control variables on the panel relationship between accounting profits and financial events in the two countries of Iran and Turkey with the t-statistic and at a confidence level of 5% showed a significant effect of these two control variables in all cases in Turkish companies. Table 19 presents a comparison of the results of the control variables.

Table 19. A comparison of panel data model estimation results for the first-sixth hypotheses – control variables (Iran and Turkey)

Country	Dependent Variable	Control Variable	Estimated Coefficient	Standard Error	T Statistic	Probability	Result
Iran	Net profit	Corporate size	0.008229	0.001803	4.564022	0.0000	Confirmed
		Corporate age	0.077285	0.036551	2.114458	0.0348	Confirmed
	Operating profit	Corporate size	0.004961	0.001956	2.536780	0.0114	Confirmed
		Corporate age	0.148231	0.047520	3.119375	0.0019	Confirmed
Turkey	Net profit	Corporate size	0.111138	0.011038	10.06883	0.0000	Confirmed
		Corporate age	-0.175852	0.083429	-2.107806	0.0353	Confirmed
	Operating profit	Corporate size	0.027716	0.006939	3.994428	0.0001	Confirmed
		Corporate age	1.200824	0.279823	4.291376	0.0000	Confirmed

## CONCLUSION

The results demonstrated a significant relationship between financial events and operating, and net accounting profits in Iranian and Turkish companies. In addition, the financial events of the past and current years had an impact on the accounting profit, and there was no significant difference between the two geographical regions of Iran and Turkey. Therefore, a more efficient analysis of the current and future profits and returns of the companies can be carried out by investors and analysts by having information about the financial events of the companies. This issue is a confirmation of the event theory in accounting that accounting profit has a significant relationship with its constituent events regardless of the region and country where the companies are located.

## RESEARCH RECOMMENDATIONS

It is recommended that other variables such as economic indicators be considered in future studies in addition to financial events to determine accounting profit.

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