



Research Paper

## Evaluate the Impact of the Type of Business Strategy on the Readability of Disclosure of Financial Statements of Companies Listed on the Tehran Stock Exchange

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### ABSTRACT

So far, the readability of disclosure concepts and the behavioral characteristics of investors in Iran have not been adequately addressed, despite their importance. Furthermore, there is currently no suitable tool available in the country to measure these aspects. Therefore, it is necessary to conduct research in Iran to introduce the concept of disclosure readability, develop a measurement tool, and examine the impact of business strategy on the readability of financial statement disclosures. In light of this, the present study aims to evaluate the influence of business strategy type on the readability of financial statements among companies listed on the Tehran Stock Exchange. The research design employed is an applied causal (post-event) correlational approach. The statistical population for this study consists of all companies listed on the Tehran Stock Exchange. Through the systematic elimination sampling method, a research sample of 129 companies was selected, and data was collected over a 5-year period from 2015 to 2019. EVIEWS 9 software and regression analysis were utilized to test the research hypotheses. The results indicate that the type of business strategy significantly impacts the readability of financial statements among companies listed on the Tehran Stock Exchange.

## 1 Introduction

Accounting information systems play a crucial role in organizational workflows and the economic landscape of countries. Many decisions rely on information derived from these systems, and a significant portion of securities exchanges is driven by financial information prepared and provided through accounting information systems. Financial reporting, as the primary form of information provided in these systems, serves multiple users. It represents the culmination of the accounting process and encompasses the range of reporting aimed at meeting the information needs of external stakeholders [1]. The importance of high-quality financial reporting is widely recognized, as shareholders and creditors base significant investment decisions on financial statements. The quality of financial reporting serves as a differentiating criterion, distinguishing useful information from other types and enhancing the overall usefulness of information. It reflects the accuracy of financial information reported to various user groups. Quality information possesses attributes that make financial statements valuable for users in assessing the financial condition, performance, and flexibility of business entities. The primary qualitative features of information content

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are relevance and reliability, which are composite characteristics. Relevant information is deemed to influence economic decisions by assisting users in evaluating past, present, and future events or in confirming and correcting previous evaluations. To be relevant, information must possess predictive and verifiable value (feedback value) and be timely. Reliable information is complete, free from error and bias, and faithfully represents the intended message in a reasonable manner. Moreover, reliable information is characterized by completeness, neutrality, prudence, honesty, and content preferences. In a concise definition of the qualitative features of financial information, Wicker's characterization as "features of information that make it useful" stands out [14]. Low-quality financial statements create a situation that hinders investor decision-making, resulting in ambiguity and increased information risk. From the perspective of financial reporting users, higher-quality information leads to lower information risk. Shareholders and creditors also seek more and better information about companies' performance, and full disclosure with desired financial statement quality can foster a secure environment, build investor trust, and enhance a company's value.

According to Bushman et al., financial reporting has three key impacts on the capital market: first, it aids in distinguishing good and bad investments, thus assessing risk and reducing capital costs; second, it facilitates investors in differentiating between competent and incompetent managers, thereby reducing agency costs and capital expenses; third, ambiguous accounting reports weaken the relationship between accounting figures and economic facts, inevitably increasing information asymmetry. In such circumstances, Bhattacharya et al. [7] suggest that resource suppliers protect their interests by increasing selling prices and decreasing purchase prices, which consequently increases transaction costs and reduces trading volume [7]. Information disclosure typically encompasses three components: content, timing, and presentation of information. The usefulness of each component depends on the readability and comprehensibility of financial statements [13]. In 1967, the Securities and Exchange Commission (SEC) established a study group to provide guidance on improving the readability and comprehensibility of corporate disclosure procedures. The findings of this study, published in 1969 as the White Report, recommended that companies avoid complex, lengthy, or redundant reports as not all investors can readily comprehend complex corporate disclosures [2]. Annual reports submitted by publicly traded firms constitute the primary source of information for capital market participants. A significant portion of these reports (approximately 80%) is dedicated to qualitative information, commonly referred to as narrative disclosures, found in sections like Management Discussion and Analysis (MD&A) [25]. Such qualitative information is vital for understanding the business's operating environment, past performance, future outlook, and risk exposure. However, in reality, narrative disclosures often prove difficult to comprehend due to information obfuscation by managers [19]. Given the significance of financial reporting disclosure readability, its impact on investor decisions, and its relationship with variables such as corporate business strategies, there is a need for further research in this field. The outcomes of this research not only expand the theoretical foundations of previous studies on financial reporting and disclosure but also contribute to the development of accounting literature, particularly in developing countries like Iran. The findings of this study can be valuable for various groups, including investors in financial markets, stock exchange officials, company managers, brokers, financial analysts, capital market researchers, and managers of companies listed on the stock exchange.

By providing scientific insights into how investors utilize the information disclosed by companies and understanding the impact of different business strategies on the readability of financial statement disclosures, these findings can help protect the interests of both professional and non-professional investors, enhancing transparency and trust in the capital market. Therefore, the research main question is: "How does

the choice of a business strategy by company management affect the readability of financial statement disclosures?" These findings can also assist in formulating policies that promote transparency and improve the overall quality of financial reporting and disclosure practices. It is essential to examine whether the type of business strategy adopted by a company influences the readability of its financial reports. The present research addresses this gap and investigates the impact of business strategy types on the readability of financial statement disclosures of companies listed on the Tehran Stock Exchange. This research possesses novelty and innovation in several areas: It is one of the few studies in Iran that explores the "evaluation of the impact of business strategy types on the readability of financial statement disclosures of companies listed on the Tehran Stock Exchange." This research provides new empirical evidence regarding the effectiveness of different business strategies. Therefore, it contributes to the advancement of relevant literature. The results of this research shed light on various aspects of the relationship between business strategies and financial statement readability. Consequently, the findings can inform stock exchange organizations, financial analysts, regulators, and policymakers. This research emphasizes the importance of financial statement disclosure readability and its implications for investor decision-making. Additionally, it highlights the role of business strategies in shaping the readability of financial statement disclosures, contributing to a comprehensive understanding of these interconnections. The structure of this research is as follows: The second section discusses the theoretical foundations and hypotheses of the study. The third section introduces the research variables and methodology. The fourth section presents the empirical results. Finally, the fifth section provides conclusions and suggestions for further research.

## 2 Theoretical Foundations and Literature Review

The results of some recent studies on financial reporting show that the reports that provide the main information needed by investors have become more complex and lengthier. However, if extracting useful information from long and complex disclosures is difficult and costly, it may not help investors [9]. Efforts by the US Securities and Exchange Commission to publish more readable and comprehensible reports date back to 1933. In fact, the US Securities and Exchange Commission is constantly trying to make corporate reports more readable to make them easier to understand and interpret [16]. But despite the different rules, the reports got really complicated. Some accountants state that useful information that is disclosed in annual reports is hidden among a large amount of text, redundant, or irrelevant data and is difficult to process. Ambiguous management hypothesis states that when firm performance is poor, managers tend to present information vaguely because the market may react to information that is presented in a complex way with delayed response [16].

Li [23] examined the relationship between the readability of a company's annual reports and financial performance. In this study, he used the fugue character defined in linguistics. This indicator is a criterion for measuring readability, and its high value indicates the complexity of the disclosure and, in other words, the low readability of the report text. Li found that there was an inverse relationship between the fugue and the profit level. The result of his research showed that managers use complex disclosure so that bad news or their bad performance is not easily identified in company reports [23]. If companies' annual reports are less readable, shareholders spend more time and money processing information, which exacerbates conflicts of interest between manager and owner [35]. First, over-readability of financial reporting may prevent minority shareholders from extracting more accurate information about company transactions to oversee majority shareholders. Second, readable financial statements facilitate the transfer of valuable information to potential investors. Research in accounting shows that lower readability financial reporting

has a lower quality than financial analysts' forecasts and reduces investors' dependence on financial statements, which makes investors reluctant to buy shares in less readable financial statements [28]. Poor readability therefore prevents annual reports on the transfer of relevant and valuable information to the capital market; As a result, poor readability of corporate information will weaken the capital market and ultimately lead to increased agency costs.

In general, the annual reports of legible companies are very useful in reducing the information asymmetry faced by potential shareholders and investors and thus reduce the need for more oversight of companies and consequently reduce the cost of representation in the company [27]. The following are the results of some of the most important research in this field : Using a large panel of U.S. public firms, Rjiba et.al examine the relation between annual report readability and cost of equity capital. They hypothesize that complex textual reporting deters investors' ability to process and interpret annual reports, leading to higher information risk, and thus higher cost of equity financing. Consistent with our prediction, they find that greater textual complexity is associated with higher cost of equity capital. Their results are robust to a battery of sensitivity checks, including use of multiple estimation methods, alternative proxies of annual report readability and cost of equity capital measures, and potential endogeneity concerns. In addition, they hypothesize and test whether the nature of the relation between readability and cost of capital depends on the tone of 10-K filings. Their results show that the effect of annual report complexity on cost of equity is greater when disclosure tone is more negative or more ambiguous. They also find that the effect of annual report readability on cost of equity capital depends on the degree of stock market competition, level of institutional investors' ownership, and analyst coverage [3]. Choi et.al [12] investigate the effect of 10-K readability on the association between stock returns and changes in cash holdings and find that readability significantly increases the marginal value of cash holdings (MVCH). The value spread for firms with high-readability reports is about US \$0.08 per dollar of cash. This effect is stronger for firms with more severe managerial agency problems, less external monitoring, and greater financial constraints. Additional analyses suggest that the direction of causality runs from readability to the MVCH. they posit that more readable 10-Ks facilitate investors' monitoring, inducing firms' efficient cash use. Kuang et.al [22] investigate whether market reactions to Accounting and Auditing Enforcement Releases (AAERs) of the U.S. Securities and Exchange Commission (SEC) vary with different levels of readability in the AAERs. After controlling for the complexity of an AAER report and the severity of the enforcement case, they find that when the AAER is more difficult to read, with readability measured based on the directives of the Plain Writing Act of 2010, markets react more negatively to the AAER announcement. Cross-sectional tests indicate that the effect of AAER readability is attenuated by investor sophistication and firm visibility, whereas the effect is more pronounced when AAER firms are exposed to greater uncertainty. Contrary to conventional wisdom that linguistically complex disclosures receive reduced market reactions, their results suggest that complex AAER announcements could trigger more negative stock price reactions, since investors under uncertainty and ambiguity tend to assume the worst and bid down the market value of AAER firms. Their study offers meaningful implications for regulators concerned with writing clarity in government documents. Banaee Gadim et al [10] examined the effect of business strategy on the comparability of financial statements with emphasis on the role of information asymmetry; thus, they selected 126 companies for a period of 8 years from 2010 to 2018 and analyzed the relevant to the research variables data using Stata statistical software (version 15). The results of testing the research hypotheses showed that business strategy (offensive strategy and defensive strategy) has a positive and negative effect on the comparability of financial statements, respectively. It was also found that the interactive effect of information asymmetry with business strategy (offensive and defensive strategy) on the comparability of

financial statements has a significant negative and positive effect, respectively. Hasan and Habib [19] examine the relation between the readability of narrative disclosures in 10-K reports, and corporate liquidity and payout policies. They find that firms with less readable disclosures hold significantly more cash. They also find that this relationship is stronger for firms with weak corporate governance, and with higher financing constraints and refinancing risks. Further analysis also shows that firms with less readable disclosures pay fewer cash dividends and repurchase less stock. Their findings are robust to different estimation methods, and to alternative specifications of key variables. Souza et al. [34] investigated the relationship between readability of accounting disclosure readability and financial performance and argued that managers complicate accounting disclosure readability when their performance is poor. They use panel data for the original sample of 1643 companies and a secondary sample including 1297 companies on the period from 2010 to 2016. They found that managers intentionally complicate the disclosure of narrative accounting in order to hide their poor performance information. The findings are consistent with management ambiguity assumptions and help to understand that complex narrative reports used to conceal negative financial information. It has also been shown that previously complex information has a negative impact on the company's current performance. Therefore, from a logical point of view, there is an agreement that complex narrative reports are costly and ineffective in the analysis process. Our results help capital market shareholders request comprehensible and useful information for decision making.

Yang Lima et al also stated that business strategy can determine products and services, market demand, technologies and organizational structure. Therefore, it can also affect the operational complexity of the company, environmental uncertainty and information asymmetry of companies. They finally concluded that the readability of annual financial reports of companies can be limited by business strategies; In a way, business strategy is considered as one of the fundamental factors in determining the readability of disclosure and awareness of financial reports (Kim et al.) [25]. They argued that since business strategy mainly determines product, market, technology, and the organizational structure of a company, thus affects the operational complexity of the company, environmental uncertainty and information asymmetry. As a result, business strategy involves the level, wording, and complexity of disclosure. So corporate strategy can affect the readability of financial statements [15]. KiaYangLim et al. [21] examined the impact of business strategy on the readability of the annual report. They found that the financial reports of companies pursuing an innovation-driven exploratory strategy were less readable than those of companies pursuing a defensive productivity strategy. They also found that companies with hedging strategies showed more negative points and uncertainty, while companies with defensive strategies showed a clear tone in their financial statements. Hajiha and Ranjbar Navi [18] investigated the effect of business strategy and stock overvaluation on risk of collapse. Thus, they used the financial information of 74 companies listed on the stock exchange from 2007 to 2016. The results of their research showed that trading strategy and stock devaluation have a positive and significant effect on the risk of falling stock prices; that is, in aggressive companies and companies that have overvalued stocks, the risk of falling stock prices is higher. The results also showed that stock valuation has no significant effect on the relationship between strategy and stock risk. Lo et al. [25] examined the relationship between earnings management and the readability of annual reports. The results of their research showed that companies that are more likely to apply earnings management have more complex management analysis reports. They also showed that companies with higher profits publish more readable annual reports than other companies. Barzegar et al. [4] examined the effect of business strategies on the disclosure of research and development activities. Thus, they selected 86 companies listed on the Tehran Stock Exchange from 2011 to 2016 as a sample and analyzed their data through the analysis of regression models. They used content analysis method and checklist tools to measure the level of

disclosure of research and development activities. Their research findings in connection with the test of the first research hypothesis show that the differentiation strategy has a significant positive effect on the disclosure of research and development activities. The findings of the second hypothesis also show that cost leadership strategy has a negative and significant effect on the disclosure of research and development activities. Barzideh et al. [5] examined the effect of companies' business strategy on investment efficiency. To investigate the issue, based on polynomial logistic regression, they collected the data of 119 companies listed on the Tehran Stock Exchange from 2001-2015 using Novin Rahavard software, financial statements and the official website of the Tehran Stock Exchange and used them to test research hypotheses.

According to the research findings, companies that pursue a forward-looking, innovation-based strategy have invested in high-risk projects and are more likely to over-invested. On the other hand, companies that follow a more defensive and performance-based strategy more likely to lesser-invested. Shirazi Dehkharghani and Haghgoo Mehrdad [33] examined the relationship between business strategy and fraudulent financial reporting with emphasis on the role of disclosure quality in companies listed on the Tehran Stock Exchange. Using systematic elimination sampling method, they selected 114 companies as research samples and researched in a period of 6 years from 2011 to 2016. The results of their research showed that defensive management strategy has a significant and inverse effect on fraudulent financial reporting, but aggressive management strategy has a direct and significant effect on fraudulent financial reporting. The quality of disclosure has a significant inverse effect on the relationship between defensive management strategy and fraudulent financial reporting. But the quality of disclosure does not have a significant effect on the relationship between aggressive management strategy and fraudulent financial reporting. Tong Tan et al. [35] examined the common effect of investor tone, readability, and maturity on earnings judgments. Recent studies have shown that market participants respond positively to the positive sentiment or tone of language contained in financial disclosures, and that investors' reactions to negative news or poorly readable disclosures is slower. However, while the readability and feel of the accompanying language occur in practice, the common effects remain largely unknown. In an experiment with executive management students as participants, they examined how the effect of language sense changes with investor maturity and readability.

They found that the sense of language influences investors' judgments when readability is low. In particular, when readability is low, positive language disclosures lead to higher earnings judgments for less mature investors but lower earnings judgments for more mature investors. These findings suggest that the main effects of readability and language sensibility written in previous studies have borderline effects and may be reversed when both variables are considered together with investor maturity. Rennekamp [28] examined the processing and reaction of investors to financial disclosures. He initially selected 234 people with information on companies operating in the beverage industry and asked them to make initial valuation judgments. Then, in the next step, it provided information about the company's financial performance. After making the necessary manipulations in the readability of financial information disclosure, they were asked to judge the extent to which they relied on the information published by them, their feelings about processing psychology, and their presuppositions about management credibility. In the end, it was observed that there was a significant difference between the initial and final estimates of the participants in the study, which he classified as the power of investors to react to the information presented and manipulated. He also found in his research that more readable financial disclosures can lead to a stronger response from research participants. Other results of his research showed that when the news about the company is favorable, changes in participants' value judgments in response to greater readability will be positive, and vice versa.

Safari Graili and Rezaei Pite Noei [35] examined the effect of business strategy on the readability of companies' financial reporting. To measure the readability of financial reporting, they used two fog and flash indices, and to determine the type of business strategy of companies, they also used the combined scoring system of Ittner et al. [22]. Their research hypothesis was tested using a sample of 84 companies listed on the Tehran Stock Exchange from 2013 to 2017 and using a multivariate regression model based on the combined data technique. Their results showed that companies with aggressive strategies publish less readable financial reports than defense companies. Also, the results of the sensitivity analysis test showed that the use of alternative criteria to measure the readability of financial reporting and business strategy does not affect the main results of the study and the research results are robust. Khani Masoumabadi and Rajab Dori [20] examined the relationship between the readability of financial reports and bold tax policy using a system of equations. Their research hypotheses testing showed that there is a significant two-way relationship between the readability of financial statements and bold tax policy. The findings show that as tax readability increases, tax policy boldly decreases. Also, as the level of bold tax policy increases, the readability of financial statements will decrease. As a result, regulators and investors should give more attention to these two variables in order to be more transparent and readable, as well as to control bold tax policy. Nowruzi et al. [27] investigated the relationship between financial reporting readability with corporate representation costs and to study the moderating effect of management ability on this relationship using the structural equation modeling approach. To measure the readability of the company's financial reporting, they used three indicators: Flash, Fog, and text length indices. The statistical sample of their research consisted of 116 companies listed on the Tehran Stock Exchange from 2012 to 2017. The findings showed that the readability of financial reporting reduces the cost of representing the company. In addition, the results showed that the ability to manage moderates and weakens the negative relationship between financial reporting readability and corporate representation costs.

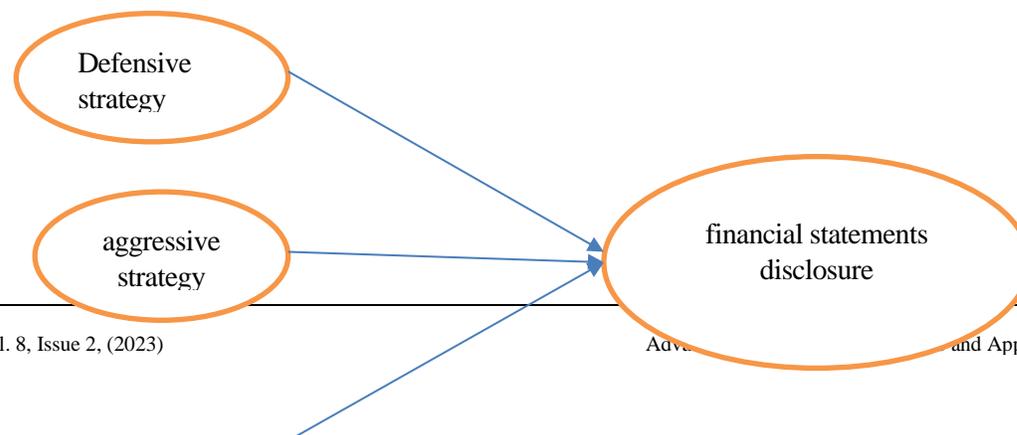
### 3 Research Methodology

#### 3.1 Research Hypotheses

According to the stated theoretical foundations, the research hypothesis can be presented as follows:

- The type of business strategy used by the company (defensive, aggressive and analytical) affects the readability of financial statements disclosure.

In fact, the conceptual model of this research can be described as Fig. 1. Therefore, according to the presented conceptual model, it is expected that business strategies can affect the readability of financial statements of companies.





**Fig. 1:** Conceptual Model Research

### 3.2 Statistical Population and Sample

The surveyed companies are companies listed on the Tehran Stock Exchange, the reasons for which are selected as follows:

1. It is easier to access the financial information of companies listed on the stock exchange. Especially since some of this information is available in the form of databases on CDs.
2. Given that the financial information of the companies listed on the stock exchange is reviewed and monitored, it seems that the financial information contained in the financial statements of these companies is of a higher quality.
3. Given the need to implement financial accounting rules, regulations and standards in the preparation of financial statements of companies listed on the stock exchange, it seems that the information contained in the financial statements of these companies is more homogeneous and more comparable.

Therefore, the statistical population of this study consists of companies listed on the stock exchange from 2015 to 2019.

The current paper applies screening (elimination) method, in order to gain a suitable sample to be representative of the statistical population. Thus, the following are the inclusion criteria.

- 1- According to the required information from 2015, the companies that have been listed on the Tehran Stock Exchange until the end of March 2015 and their names have not been removed from the list of the mentioned companies until the end of 2019.
2. Their shares have been actively traded on the stock exchange during the period in question.
- 3- In order to increase the comparability of the surveyed companies, their financial period should end on March 20 and they should not change the financial period in the study period.
- 4- They are not part of financial intermediation companies (investment, holding, leasing and banks and insurance companies) due to their different performance.
- 5- The required information is available.

The sample screening table is as Table 1.

**Table 1:** Determine the Sample Size

Description	NO.
Number of companies listed on the Tehran Stock Exchange until the end of 2019	711
Number of companies that have left Tehran Stock Exchange during the research period	57
Number of companies that have entered Tehran Stock Exchange during the research period	37
Number of companies whose fiscal year does not end at march 20	128
Number of companies that have changed fiscal year during the research period	20

Number of companies engaged in investment and financial intermediation during the research period	31
Number of companies that have a trading interval of more than three months during the research period	94
Number of companies do not have the information needed for the research	215
Total	129

According to this method, 129 companies were selected as the statistical population of the current paper.

### 3.3 Variables and Research Model

According to the research hypothesis, the research model is defined as follows:

$$\text{DIS-READ}_{i,t} = \beta_0 + \beta_1 \text{BS}_{i,t} + \beta_2 \text{ROA}_{i,t} + \beta_3 \text{LEV}_{i,t} + \beta_4 \text{M/B}_{i,t} + \varepsilon_{i,t} \quad (1)$$

Where,

*DIS-READ<sub>i,t</sub>*: is readability of financial statements disclosure which is a research dependent variable. In order to measure it according to the research of Blanco and Deol [7] and Hassan [19], the following index has been used, the validity and reliability of which have been confirmed by some domestic researchers such as Fazlolahi and Maleki Tavana. [15]. The financial reporting readability index is the Fog index, which is a function of two variables of sentence length (in words) and complex words (defined as the number of words with three or more syllables), which is calculated as Equation (2):

$$\text{Fog index} = (\text{Average number of words per sentence} + \text{percentage of complex words}) \times 0.4 \quad (2)$$

The process and method of determining the level of readability of financial statements in the above index is as follows:

- 1- Random selection of a sample of one hundred words from the beginning, a sample of one hundred words from the middle and a sample of one hundred words from the end of the report;
- 2- Counting the number of sentences in each sample;
- 3- Determining the average length of sentences by dividing the number of words by the number of complete sentences in each sample of one hundred words;
- 4- Counting the number of three-syllable words and more than three-syllable words (complex words) in each of the texts of one hundred words;
- 5- Adding the number of complex words with the average number of words in the sentences;
- 6- Multiplying the sum of the number of difficult and average words in sentences with a fixed number of 0.4;
- 7- Performing the calculations of paragraphs 4, 5, 6, for two examples of another one hundred words;
- 8- Calculating the average results of all three samples by adding and dividing by number (Fazlolahi and Maleki Tavana, [15]; Rezaei Pite Noei and Safari Graili, [35])

*BS<sub>i,t</sub>*: Company business strategy, which is an independent research variable and is similar to the research of Bentley et al. [5] and Higgins et al. [21] as calculated in Tables 2 and 3:

**Table 2:** Criteria for Measuring the Company's Business Strategy

Description	No.
Ratio of R&D cost to total sales	2
Percentage of a one year change in total sales	1
Ratio of general, administrative and sales costs to total sales	8

Ratio of number of employees to total sales	5
Standard deviation of the number of employees per year	4
Capital intensity (net of property, plant and equipment or "fixed assets", standardized by the sum of year-end assets)	8
All the mentioned variables will be calculated based on the three-year average (medium-term perspective).	

Adapted from Bentley et al., [5]

**Table 3:** Final Score for the Company's Business Strategy

Total	6	5	4	3	2	1	No.
8	2	2	2	2	2	2	First Fifth
21	1	1	1	1	1	1	Second Fifth
26	8	8	8	8	8	8	Third Fifth
15	5	5	5	5	5	5	Fourth Fifth
82	4	4	4	4	4	4	Fifth Fifth
It should be noted that only strategy number 6 is the inverse criterion. This means that the index located in the first fifth will be assigned the number 5, the second fifth will be assigned the number 4, etc., but due to the coordination in scoring with other variables, the criterion of this variable has become scores of 1 to 5.							
The scores obtained for identifying the type of strategy will be classified into the following three categories: Score 6-12: Defensive strategy Score 13- 23: Analytical strategy Score 24-30: Offensive strategy							

Adapted from Bentley et al., [5]; quoted by Namazi et al., [32]

Control variables:

- Return on Assets (ROA)

This ratio shows how profitable each rial of assets has been and to what extent the management has been able to use limited resources optimally. This ratio is obtained by dividing the net profit by the total assets:

$$ROA_{it} = \frac{Earning_{it}}{ASSETS_{it}} \quad (3)$$

Where,

Earning: Net profit

Assets: total assets

- Leverage :

This ratio is obtained by dividing total liabilities by total assets.

(4)

$$Leve_{it} = \frac{DEBT_{it}}{ASSETS_{it}}$$

ASSETS: Total Assets and DEBT Total Liabilities

M / B :

(5)

Growth Opportunity: The ratio of the market value of assets to their book value

### 3.4 Method of Data Analysis

To analyze the data, first the data are analyzed through descriptive statistics such as mean and standard deviation and correlation coefficient and then linear regression model is used for statistical tests. Eviews software was also used to analyze the data. It should be noted that multiple linear regression has been used to test the research hypotheses. the underlying regression hypotheses used in this study were investigated to ensure the interpretation of regression relationships. Also, a series of assumptions (classical assumptions) must be tested prior to performing the multiple linear regression test.

## 4 Research findings

### 4.1 Descriptive Statistics

Descriptive statistics include methods that are used to organize, summarize, provide a table, plot, and describe the data collected from a statistical sample. This section reviewed data obtained from 129 companies from 2015-2018. Having integrated the data, the total number of observations was 645 observations. Table 4 shows the descriptive statistics of the variables used in the integrated model:

**Table 4:** Descriptive statistics

Variables	Abbreviation	Observations	Mean	Median	SD	Min	Max
Disclosure readability	Read	645	-15.982	-14.837	0/347	-10.118	-31.175
Business strategy	BS	645	18.645	18.046	2.956	2.896	29.167
Return on assets	ROA	645	19.463	18.352	0/412	0/043	0/134
Financial Leverage	LEV	645	0/652	0/631	0/309	0/072	1.713
The ratio of market value to book value	M/B	645	0/173	0/169	0/208	1.391	-0/230

Examining the quantitative results of descriptive statistics of research variables according to the above figure shows the value of -15,982 for the mean disclosure readability variable and 18.645 for the mean business strategy variable. Furthermore, the mean financial leverage variable is 0.652 and indicates that most of the assets are financed from debts. The mean value for the ratio of market value to book value of the company is 0.173; while the mean rate of return on assets is 19,463. Also, the standard deviation of variables examining indicates that the independent and dependent variables data have a normal distribution because the variables have the minimum distance from the value provided for elongation.

### 4.2 Reliability of Research Variables

The reliability of research variables was examined prior to data analysis. The reliability of the research variables means that the mean and variance of the variables are constant over time and the covariance of

the variables in different years and therefore the use of these variables in the research model for estimation will not cause false regression. Hence, Levin, Lin and Chou tests were used. The results of this test are presented in Table 5. According to the table below, the error level of all research variables is less than 5%, so at the 95% confidence level all research variables are stable and the mean and variance of variables over time and covariance of variables in different years is constant and as a result the companies under study have no structural changes and the use of variables in the model does not cause false regression.

**Table 5:** Reliability of Research Variables

Variable	Levin, Lin and Chou	Sig
Disclosure readability	-20.116	0/000
Business strategy	-26.517	0/000
Return on assets	-19.003	0/000
Financial Leverage	-22.219	0/000
The ratio of market value to book value	-17.623	0/000

### 4.3 Co- Linearity of Research Variables

The current paper used the variance inflation factor to examine the co-linearity of research variables. The reported variance inflation factor for each variable shows the stability of the regression model. If the VIF value obtained for each of the research variables is less than 5, there is no problem of linearity between the research variables. As can be seen in Table 6, given that the VIF value of all research variables is less than 5, so the research variables do not have a co-linearity problem:

**Table 6:** Co- Linearity of Research Variables

Variable	VIF Statistics
Disclosure readability	1.416
Business strategy	1.045
Return on assets	1.665
Financial Leverage	1.782
The ratio of market value to book value	1.093

### 4.4 Heterogeneity of Variance of Research Model

Heterogeneity of variance means that in estimating the regression model, the values of the error sentences have Heterogenous variance. In fact, in estimating regression using the ordinary least squares method, we are initially based on the assumption that all error statements have equal variances, and then we will estimate the model and then we will examine this hypothesis using the White test. According to the table below, the White test was used to examine the heterogeneity of variance.

**Table 7:** Heterogeneity of Error Sentences Variance

Description	F statistics	5 % error level
White test	1.417	0/337

Therefore, according to the results presented in the table above, at the confidence level of 0.95, the problem of heterogeneity of variance is not observed in the residual sentences. This means that all residual statements have the same variance.

#### 4.5 Results of Research Hypothesis Test

The independence of the errors is the regression assumptions (difference between the actual values and the values predicted by the regression model). Regression cannot be used if the hypothesis of error independence is rejected and the errors are correlated with each other. The Durbin-Watson test is used to check the independence of errors. If this statistic is in the range of 1.5 to 2.5, the null assumption (no correlation between errors) is accepted and regression can be used. If the above hypothesis is rejected, there is a correlation between errors and the model can not be used (Momeni and Faal Qayyumi), [30]. According to the preliminary results of the model, the value of The Durbin-Watson statistic for the research model is equal to (2.004) and since this statistic is in the range of 1.5 to 2.5, it can be concluded that the residuals are independent of each other. Therefore, the null hypothesis that there is no correlation between the error sentences is confirmed. Also, the probability value related to the F statistic for examining the model is 0.000, which is less than 5%. As a result, at the 95% confidence level, the significance of the model is accepted. The value of the adjusted coefficient of determination of the model is equal to 0.65. This statistic indicates that about 65% of the dependent variable changes can be described by independent and control variables.

**Table 8:** Results of Research Model Estimation

Sig	t- statistic	Coefficient	Variable
0.000	-24.651	-0.682	<b>Business strategy</b>
0.000	-6.78	-0.122	<b>Financial Leverage</b>
0.02	2.325	-0.003	<b>The ratio of market value to book value</b>
0.000	761.75	0.105	<b>Return on assets</b>
0.003	3.03	0.261	<b>Constant</b>
0.654	<b>Adjusted coefficient of determination</b>	0.689	<b>The coefficient of determination</b>
0.000	<b>Statistical probability F</b>	2.0517	<b>Statistics F</b>
		0.042	<b>Watson Durbin Statistics</b>

As mentioned earlier, the research hypothesis is formulated as follows:

- The type of business strategy used by the company (defensive, aggressive and analytical) affects the readability of financial statements disclosure.

The probability error level of the null hypothesis that the type of business strategy does not affect the readability of the financial statements is 0.000, which is less than 0.05, therefore, the null hypothesis is rejected with 95% confidence. The coefficient of the independent variable of the type of business strategy is 0.101. Given the positive coefficient, it can be concluded that the type of business strategy of the company has a positive effect on the readability of financial statements disclosure. Therefore, the research hypothesis is confirmed.

## 5 Discussion and conclusion

The current paper examines the relationship between business strategy and the readability of companies' financial statements. Accordingly, business strategy and disclosure readability were specifically considered as research variables. In the current paper, according to the results of the final estimate of the research hypothesis, it can be said that aggressive strategy has a statistically significant effect on the readability of financial statements of companies. These results are consistent with that of Safari Graili and Rezaei Piteh Noei [37], Lim et al. [28] and Habib and Hassan [17]. The results of this research can be used for various groups such as investors in financial markets, stock exchange officials, brokers, financial analysts and capital market researchers, as well as managers of companies in the stock market by providing scientific insight into how investors use the information disclosed by companies as well as to know the extent of its impact and its relationship with companies' trading strategies in the stock market.

Consistent with this research, analysts are advised to account for the impact of business strategy on the readability of disclosure in their analysis and forecasts with attention to the fact that the readability of financial disclosure will be affected in case of aggressive strategy.

According to the results, it is also recommended to the Securities and Exchange Commission to help increase the readability of financial statements for non-professional and non-major investors. It is also suggested that capital market regulators take the necessary steps to diversify information channels other than corporate financial statements (such as increasing financial analysts, rating agencies, etc.). For example, drafting legislation that can increase the readability of financial statements by improving the level of comprehensibility is a case in point. Based on the findings of the present study on the effect of business strategy on the readability of companies' financial reports, investors and financial analysts are advised to use the type of business strategy when buying company shares and deciding whether or not to invest in a company. Companies also pay special attention; Because the readability of financial reports in companies with offensive strategy is less than companies with defensive strategy. It is also suggested to the Securities and Exchange Commission that by setting requirements to increase the readability and comprehensibility of financial reporting of companies with aggressive strategies; Including the requirement to provide files, WORD reports and the use of simpler sentences in the text of financial statements of such companies, to take steps to improve transparency and prosperity of the capital market. According to the research findings, it is suggested that Macro planners such as the Stock Exchange and Securities Organization Quality assurance bodies such as the audit organization and The Society of Certified Public Accountants pays more attention to readability Report so that based on it, the quality and Market efficiency had a positive impact. In addition, according to the research results, because companies with aggressive strategies have more complex financial reports; Therefore, auditing firms are advised to consider the type of business strategy of the company in their assessment of the risk level of the client company and planning audit operations, among other factors. It is suggested that researchers in their future research examine the impact of the presence of an audit committee on the relationship between business strategy and the readability of corporate financial statements. In addition, it is suggested to examine the relationship between business strategy and fraudulent financial reporting. Finally, a study to evaluate the relationship between the type of business strategy and the readability of disclosure in loss-making companies is recommended. Future researchers are also advised to examine the impact of business strategy on the quality of companies' information environment. It is also suggested that the effect of environmental uncertainty on the readability of companies' financial reporting be studied. Finally, this study, like other studies, had limitations that made it difficult to generalize the results; some of these limitations are:

- 1- Not controlling some of the factors affecting the research results, including the impact of variables such as economic factors, political conditions, the state of the global economy, laws and regulations, etc., that are beyond the reach of the researcher and may affect the study of relationships.
- 2- Limited time period of the research, given that the time domain of the research is dedicated to the year 2015-2019.
- 3- Lack of access to information along with the financial statements of some companies to obtain some information about variables such as product competition in some companies, which led to a smaller number of companies to be tested and reviewed.

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