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A Model for Users' Understanding of Information Overload in Financial Reporting

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ABSTRACT

Objective: This study develops a systematic model for users' understanding of information overload in financial reporting, using grounded theory. The statistical population consists of professional experts and capital market participants, with 13 individuals selected through snowball sampling. Managing information overload is crucial for enhancing the usefulness and reliability of financial reports and supporting decision-makers. **Methodology:** Data were collected via semi-structured interviews and analyzed through three coding stages—open, axial, and selective—using MaxQDA software. The coding process identified patterns, categories, and relationships consistent with grounded theory principles. **Results:** The analysis produced macro-categories, main categories, and subcategories describing the causes, influences, and consequences of overload. Findings indicate that excessive or complex disclosures cause misinterpretation, raise information asymmetry, reduce market liquidity, increase transaction costs, and elevate capital costs. These outcomes underline the urgency of implementing effective controls over disclosure practices to safeguard report clarity and usefulness. **Innovation:** Few national or international studies examined the detailed patterns of overload in financial reporting. The model is original, integrating practical and theoretical contributions. It offers recommendations for policymakers, auditors, and preparers to reduce overload, improve comprehension, enhance decisions, and raise reporting quality, while linking behavioral insights with technical aspects of disclosure.

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Introduction

One of the most important factors of sustainable development in the economy of any country is providing basic infrastructure to attract domestic and foreign investment. This is possible with a healthy competitive environment through transparent and timely information and the possibility of access to transparent information by all market participants (Wardhani, 2019).

Research conducted in different countries has shown that economic units without government pressures and legal and professional requirements do not have the desire to disclose financial information adequately, and some provide redundant, misleading, or incomplete information (Mechelli et al., 2017).

The main issue in the disclosure discussion is the dimensions and extent of information dissemination among companies (Biddle et al., 2010). Information overload occurs when information is disseminated uncontrollably and excessively, leading to misleading market participants (Dou et al., 2015; Hartmann & Weißenberger, 2024). Therefore, although it is necessary to present financial statements, they should not contain excessive or insignificant information because inappropriate and ambiguous information may lead to information overload (Ji et al., 2014; Zhao & Gan, 2024).

The theory of information overload, according to the disclosure of excessive information, on the one hand, specifies the range of information processing power by users, and on the other hand, identifies the range of information that should be disclosed (You & Zhang, 2009).

Information overload usually occurs when the nature of the information is uncertain, ambiguous, new, complex, or dense (Herbig & Kramer, 1994). Information processing and the quality of decisions also enhance when the amount of information increases (Ruff, 2002).

The question raised here is, according to the theory of information overload, what are the consequences of the disclosure of additional and unnecessary financial and non-financial information on financial reporting and users' understanding?

Despite the increasing attention to corporate disclosure and financial transparency, the concept of information overload in the context of financial reporting has not been adequately explored in the existing literature, especially in the fields of accounting and auditing. Previous studies have mainly focused on the benefits of voluntary and mandatory disclosures and have paid less attention to the negative consequences of providing redundant information (Abu Alia et al., 2022; Bertomeu et al., 2021). This lack of attention is especially noticeable in developing economies where institutional frameworks and regulatory environments differ significantly from those of developed countries. As a result, a complete understanding of the detrimental effects of excessive information disclosure on users' decision-making faces a serious research gap. On the other hand, although the theoretical concept of information overload has been well studied in fields such as psychology, management, and information systems, its application to the field of financial reporting remains fragmented and incomplete. In particular, empirical models explaining the mechanism of the impact of excessive disclosure of financial and non-financial information on user confusion and weakening decision-making processes are rarely seen in the scientific literature. The present study, using the data-based theory method, attempts to design a systematic model to explain the phenomenon of information overload in financial reporting. This work is considered an innovative approach and can reveal the hidden dimensions of financial information processing and decision-making behavior in the real economic environment.

Therefore, the present study has a significant innovation in terms of subject and methodology, as it is one of the few studies that, particularly at the national level, conceptualizes and empirically examines the phenomenon of information overload in financial reporting. Unlike previous studies that have often limited themselves to a qualitative description of this phenomenon, this study contributes to the accounting literature in both the theoretical and applied fields by aiming to build a theoretical model based on empirical evidence. Furthermore, the research has important practical implications for standard-setting bodies, policymakers, and financial statement preparers by providing localized strategies to reduce information overload. These two dimensions of innovation—theoretical and applied development—make the present study an effective step towards developing scientific knowledge and improving the quality of financial reporting. This article is also organized into seven sections; after the introduction in the second part, the theoretical foundations and background of the research are presented. In the third part, the research methodology is discussed. In the fourth part, the

findings of the research are stated. In the fifth section, the discussion and conclusions are discussed, and finally, the sixth and seventh sections of the article are dedicated to practical suggestions and limitations of the research.

Theoretical Principles and Literature Review

The theoretical concept of financial reporting is not an accounting standard and, therefore, does not set a standard for specific issues related to measurement or disclosure. However, this collection will help prepare, audit, and use financial statements by providing information about the perspective in formulating accounting standards. In addition, the principles in this collection will be used as a point of reference for solving a range of accounting problems for which no specific standard has been provided (Wardhani, 2019).

This theory, which is also accepted in the world's professional circles, considers incomes and expenses as a result of changes in assets and liabilities, and their logical matching is possible only in the light of providing precise and clear definitions of assets and liabilities (Glaeser, 2019).

The development and evolution of accounting and financial reporting in any society is subject to environmental, social, and economic factors, the social and organizational environments, as well as social and organizational capital. The first step is to prepare human capital development training programs and determine the training needs of financial information users (Bozanic & Thevenot, 2015; George, 2024).

The more information there is, the greater the need for analysis. Sometimes, excessive analysis leads to paralysis and can have a negative effect on the power of making the right decision, ultimately resulting in uncertainty and lack of professional development (Bozanic & Thevenot, 2015). Furthermore, the nature of additional information on financial statements may have a bilateral basis, and the content disclosed in it is not necessarily a common language indicating all the facts (Ragland & Reck, 2016; Zhang et al., 2023).

According to Jonas and Blanchet (2000), there are two general approaches to evaluating the quality of financial reporting used. The first approach is based on users' needs. According to this view, the quality of financial reporting is related to the usefulness of financial information for the users of this information. The second approach is focused on the concept of investor or shareholder protection (Henderson, 2016).

There are many problems in life where information overload prevails. However, the most severe consequences may be in the investment sector, and the less financial knowledge and understanding people have, the worse problems they face. Information processing by investors is different in accessing different data, and the result of investors' decisions depends on their processing style (Gonzalez, 2017).

Individuals with higher working memory capacity rely more on logical processing styles. Instead, individuals with weaker working memory rely more on experiential (intuitive) style and perform poorly in analogical reasoning (Barrett et al., 2004; Bluvstein et al., 2024). They limit their search only to stocks that have caught their attention; this information can create an inappropriate image in the investor's mind (Ayal et al., 2015).

This theory states that human processing capacity is limited and learning occurs best if aligned with human cognitive structures (Plumlee, 2003). Cognitive load refers to the set of mental efforts spent on processing information in active memory, and demands that exceed the capacity of active memory to process information lead to cognitive overload. This theory affects memory through three types of cognitive load; i.e., internal, external, and desired. Internal cognitive load relates to the complexity of the items the person tries to understand (Ginns, 2006; Rummel et al., 2024).

To understand information overload, Guay et al. (2016) proposed seven main factors regarding why managers, knowingly or unknowingly, are exposed to information overload:

- They collect information to show that they are committed to the rationality and adequacy that promotes decision-making.
- They receive large amounts of unnecessary information.
- They search for more information to check the available information.

- They use information as a shared asset, so they do not follow others and depend on them (Klausegger & Sinkovics, 2007).

Miller (2010) showed that people effectively process seven pieces of information. He concluded that the information processing capacity of the information users should be considered to improve external financial reporting. Since providing excessive information leads to information overload (saturation), he believes that more information is more challenging; because of this, decision-makers experience information overload at different levels. Ashton et al. (2004) emphasized behavioral concepts and arguments in managerial financial reports. He pointed out that accountants may provide more financial information than is helpful. Information overload may lead to poor decision-making by managers.

Hartmann and Weißenberger (2024) believes that increasing information overload in financial reports can, after a certain threshold, reduce decision-making accuracy, increase decision-making time, and increase the feelings of mental overload.

Zhao and Gan (2024) found that there is a U-shaped relationship between media coverage and stock price synchronization, such that excessive media coverage leads to information overload and increased stock price synchronization.

Bernales et al.(2022) found that the stock market is associated with lower trading volume and predicts higher market returns for up to 18 months, even after controlling for standard predictors and other news-based measures. Furthermore, information overload affects the level of stock returns, so investors need to take higher risks to hold small, high-beta, high-volatility, and unprofitable stocks. Eissa et al. (2024) found that information overload in long annual reports reduces investors' trust in financial statements and their ability to understand a company's business and financial performance. Investors confirmed that information load reduces their ability to access relevant information to make investment decisions and predict future performance, increasing uncertainty about firms' performance.

George (2024) concluded that digital hoarding caused by information overload is increasingly disrupting personal productivity, increasing stress, security threats, and severe environmental impacts. Wardhani (2019) highlighted that the voluntary disclosure of information is met with a positive reaction from the capital market, which includes an increase in abnormal stock returns, more fluctuations in stock returns and the average volume of stock transactions, a reduction in the gap between the proposed price of buying and selling shares, and enhancing the audit quality.

Koonce et al. (2019) showed that the separate presentation of items related to financial statements and company status helps users process information and reduces information overload.

Glaeser (2019) underscored that the voluntary disclosure of public information reduces the disclosure of private information. Forbes et al. (2019) showed that new entrant reporting firms and their competitors consider their information quality when faced with disclosure, leading to improved information quality.

Hung and Cheng (2018) argued that increasing information and ambiguity in the company's financial reports reduces transparency and makes information difficult to process. Nurcholisah (2016) showed that the quality of financial reporting has no effect on information asymmetry, and information asymmetry has no effect on investment efficiency. Ajina et al. (2015) highlighted that there is a positive relationship between corporate disclosure and stock liquidity, and there is also a negative relationship between corporate disclosure and information asymmetry. Binh (2012) showed that the optional disclosure index includes the company's general information, audit committee, financial information, prospects, employee information, social and environmental information, and the board of directors structure. The evidence also indicated that the actual examination of companies' voluntary disclosure shows the highest level of disclosure of public information and prospects. Hua (2011) showed that as information uncertainty increases, investors' underreaction also increases.

Research Methodology

The current research is considered developmental-applied research regarding the objective, and descriptive survey research regarding the data collection method. Moreover, from the point of view of data collection, according to the nature of the research, it is of the qualitative research type, and the database theory has been used as the research method. The present research, such as many types of research conducted in the field of human sciences, is considered exploratory research, as it seeks to

discover information overload in financial reporting and its users' understanding. In terms of the result, this research is considered part of developmental research because it seeks to provide a model for information overload in financial reporting. In this research, to address the shortcomings of prior research, with a qualitative approach and using the foundational data theory method, a comprehensive model was developed, including causal factors, central factors, intervening factors, background factors, strategies, and consequences of talent management and succession. Furthermore, this research was cross-sectional from the point of view of time dimension as the interviews were conducted in 2021. The current research uses a qualitative approach and applies the foundation's data theory method. Therefore, the required data has been collected using semi-structured interviews. The primary data collection method used in this study was a semi-structured interview. Face-to-face interviews were conducted in one session. Each interview was immediately implemented and subjected to initial coding and analysis. The interview sessions were about 60 to 90 minutes on average. The interview questions were open-ended and were asked during the interview. The answer to one question might raise another question. However, to stay within the interviewer's control, the following key questions, along with other questions asked during the interview, emerged (follow-up questions). Ultimately, the last question from the interviewee asked them to add comments if they had any.

Since this research was conducted using a qualitative method, no hypothesis in the qualitative part led to the use of the foundational data theory. As a result, this research addresses the following questions:

- What are the information overload criteria in financial reporting?
- What is the appropriate model for users' understanding of information overload in financial reporting?
- What are the causal conditions of information overload in financial reporting?
- What are the appropriate background conditions for information overload in financial reporting?
- What are the interfering conditions of information overload in financial reporting?
- What are the information overload strategies in financial reporting?
- What are the consequences of users' perception of information overload in financial reporting?

In collecting information, the following considerations were used in choosing participants (experts who were interviewed):

- Familiarity and mastery of exemplary individuals on the concepts of financial reporting;
- Familiarity with accounting information and communication systems and digital data;
- Accounting and auditing experts, analysts, and professional capital market activists;
- Conducting, collaborating, or guiding as a supervisor, consultant, and judge of at least two qualitative studies related to accounting psychology or information technology.

Based on the stated criteria, a list of experts in the field of the research subject was primarily prepared and made available. The objectives of the research were explained through phone call, face to face, or email, and they were invited to conduct an interview. In this research, 13 individuals were selected as interviewees (experts), and all interviews were conducted face to face and with prior coordination (except for one case that was conducted over the phone due to the conditions of the COVID 19). It is essential to mention that, at the very beginning of the interview, the observance of ethical principles was emphasized to gain their confidence and trust to conduct the interviews.

In this paper, 13 individuals were selected as a sample to conduct interviews using the snowball sampling method (saturation was reached in interview number 13). In this paper, coding has been conducted and Strauss and Corbin's (2015) paradigm model was used for axial coding. After conducting interviews during three stages of open coding, central coding, and selective coding using MaxQDA software, data analysis was conducted according to the foundation of data theorizing method. In the current research, to ensure its acceptability, the research findings were presented to the interviewees and experts in the field of the research subject after each interview was completed, and there was a discussion and exchange of opinions about its components. In the present study, to validate the findings, the results of analysis and coding were given to seven individuals, including four participants in the research and three individuals except the participants, and their opinions about the extracted codes, conceptual labels, and data content were applied.

Research Findings

This research analyzed the interviews using line-by-line, phrase-by-phrase, general concept analysis, conceptualization, and categorization based on similarities, concepts, and commonalities between open codes, concepts, and categories. In this stage, 443 codes and concepts were identified and classified, and central subcategories and concepts were formed. The collection related to causal conditions was categorized into three main categories.

Table 1. Open Coding and Concepts of Causal Conditions

	Main categories	Subcategories	Concepts
Causal conditions	Motivation to publish information	Management motivation	Signaling theory, capital market transactions, accountability for corporate control, bonus shares, lawsuits, private expenses, revealing the ability and talent of managers, discussion and analysis of changes in financial position, liquidity and performance compared to previous periods, discussion regarding the achievement of financial goals, discussion regarding the achievement of non-financial goals
		Nature of business	The type of industry, the main markets and the position of the company compared to its competitors, the main characteristics of the law, regulations and the macroeconomic environment, the main products and services of the company, the main business processes and distribution methods, the structure of the company and how it creates value, the weakness or complexity of information systems, time pressure, accounting standards
		Discover the nature of information	Information processing, information complexity, information ambiguity, information uncertainty, information novelty, information quality, information usefulness, information inappropriateness, validity, work complexity
	Non-financial factors	Product and customer factors	Major contractual relationships, influence on the market and the quality of presence in the market, provision of customer satisfaction standards, relative bargaining power of customers, current innovations of products, provision of alternative products or services, changes in markets, competition or technology, growth or contraction in market share, Bargaining power with suppliers of resources and satisfaction of suppliers
		Strategic factors	Business strategy and management, coordination of strategy with external organizational trends, infrastructure empowerment, management philosophy and employee incentives, management of asset return goals, identity of major shareholders, shares owned by members of the board of directors, managers and employees, number of employees and average compensation, identity of related parties and description of relationships
		Foresight	Emphasis on future directions of technological innovations, description of the structure of the industry and the economic unit, the participation of employees and the realization of their changes, public events in the commercial space and the recent economic unit.
	Market pressure	psychological factors	Stimulating shareholders' expectations, changing shareholders' perception, creating psychological satisfaction, stimulating emotions, stimulating attitudes toward investment, stimulating loyalty, stimulating behavior in investment
		Instrumental factors	Strengthening motivation, stimulating the sense of information integration, reducing resistance to investment, increasing loyalty, and providing a lot of information compared to other companies.
		Self-interested agents	Strongly showing the shareholders' interests, expectations, internal controls, and independence of the board of directors.
		Superior factors	Managerial monopoly, maintaining the manager's position of power, strengthening social prestige among shareholders, being the center of attention, competitiveness, motivation for growth and development, expansionism, commitment to goals
			Party and political factors

The causal conditions of the subcategories, such as the motivation of management, the nature of business, and the discovery of the nature of information, are related to the motivation of information dissemination. Non-financial factors include subcategories such as product, customer, as well as strategic and prospective factors. Finally, the main category of market pressure has four sub-components, including psychological, instrumental, selfish, superiority, and party and political factors.

- Axial category: Axial coding includes determining the patterns in the data. At this stage, the core and subcategories of the research are displayed in a model. In this research, the central category is users' understandings of information overload in financial reporting.

Table 2. Open Coding of Core Concepts

Central category	Main categories	Subcategories	Concepts
Users' perception of Information overload	Individual factors	Characteristics of intelligence	Emotional intelligence, spiritual intelligence, rational intelligence, logical and mental intelligence, self-motivation, empathy, knowing the emotions of others and knowing oneself, hoping to solve problems, adapting to the job, emotionality, artistic understanding, adaptability, cognitive intelligence, creative intelligence, and mental agility.
		Personality characteristics	Emotional and spiritual stability, duty-oriented, realistic, searching, social, pragmatic, compromising and adaptable, resilient, self-oriented, flexible, hopeful, self-efficient, independent, curious, analytical, original, Egyptian, alert, precise and sensitive, creative and innovative, logical, ambitious, encouraging, relationship-oriented, efficient, idealistic, optimistic, interactive, personality and spiritual independence, gender, age, education
	Skill factors	Motivational factors	Spiritual and material motivation, job prestige, professional courage, observance of professional ethics, legalism, enthusiasm, attention to scientific and innate talents, psychological and material needs, growth and development opportunities, and participation in decision-making.
		Cognitive and metacognitive ability	Psychoanalytic ability, metacognitive ability, cognitive ability, ability to transfer information and communication, mental ability, ability to recognize and solve problems, physical and mental ability, effective planning, ability to interpret statistics and financial and non-financial information, ability to make decisions, ability to determine volume information, the ability to determine the extent and nature of information, the ability to evaluate information, the ability to use information in a targeted manner, the ability to understand the legal issues of information use
		Professional factors	Management skills, leadership skills, familiarity with accounting software, skill and experience in interpreting statistics and financial and non-financial information, mastery in using information technology, skill in the industry, financial and commercial expertise, skill in using accounting tools and systems and digital environment, skills in accounting information systems, organizational skills and business management, accuracy and sensitivity to the quality of financial reports, a proper understanding of business, professional behavior, professional insight, knowledge of accounting and auditing standards, full knowledge of the laws of professional regulatory bodies, knowledge in the field industry, knowledge about legal, commercial and financial issues, knowledge in information and communication technology, familiarity with eight international standards, familiarity with international financial reporting standards

The central category in this research is the users' understanding of information overload in financial reporting. The first category is related to individual factors, including subcategories such as personality traits and intelligence, and the second category is related to skill factors, including subcategories such as motivational, cognitive, and metacognitive factors and professional factors.

- Background conditions: The background is a unique set of features related to the phenomenon. It means the place or events related to a phenomenon during a limited period.

Table 3. Open Coding and Concepts of Contextual Conditions

Central category	Main component	Subcategory	Concepts
Background factors	educational Agents	Education	Removal of additional rules and regulations, continuous professional and public learning and training, job training, information technology training, legal training, training related to the application of accounting and auditing standards, training in financial and accounting regulations, training in fundamental analysis in the interpretation of financial ratios , structured training program, development and training catalogs, a suitable perspective of training in the profession, suitable training for the capital market
		Limitation	The difference between university education and the labour market's needs, the capital market's limitations, the business environment's complexity, the inherent complexity of financial statements, and the limitation of preparing financial statements based on international financial reporting standards
	Organizational factors	Organizational goals	Maximum achievement of goals, alignment of organizational missions and goals, organizational goal setting, challenging goals, transformation-oriented strategies, application of organizational transformation strategies, operations and processes
		Organizational culture	The ethical culture of companies, the culture of teaching and learning, the use of implicit and explicit knowledge, the provision of specialized and cultural infrastructure
		Human capital	The existence of expert forces in the organization, the existence of competent forces in the organization, the existence of forces with excellent skills and knowledge in the organization, investment in growth and development, perceived organizational support
	Capital factors	Social capital	The level of good reputation and credit of the company, the level of trust of companies and owners, stakeholders and customers in preparing financial reports, proper communication with customers, and proper communication with managers and shareholders

The first category of background conditions is related to educational conditions, which consist of factors such as education planning and restrictions. The second category of organizational factors includes organizational goals and culture, and the third category of background conditions of capital factors includes human and social capital.

Intervening conditions: general conditions that affect the processes and strategies. Conditions that aggravate or weaken phenomena.

Table 4. Open Coding and Concepts of Intervening Conditions

	Main component	Subcategory	Concepts
Interrupting conditions	Macro factors	Sociocultural factors Agents	The level of individuals' culture, moral and social challenges of society, facilities and problems in society, how to deal with corruption and incompetence in the country, discrimination and prejudice, social responsibility of organizations and people, relationships between people and managers and organizations, social demand and needs, social awareness, inter-organizational communication, culture of people relations
		Political and economic	The economic conditions of the society, inflation, corruption, unemployment, currency fluctuations, financial problems, material needs, economic stability, the economic structure of the country, the existence of fraudulent companies, budget reduction and economic recession, labor market supply and demand, globalization, generational and relational management, technological changes and technological advances, political and government intervention, government laws and labor market, sanctions and banking conditions, money laundering and fraud
	Main article	Organizational environment	Legal environment, financial reporting environment, pressure of regulatory bodies to audit companies' financial statements, expectations of stakeholders and cost pressures, ambiguous laws and regulations, policies of managers, financial and administrative policies, and awareness of policies and procedures.
		Organizational structure	Information infrastructure, organizational atmosphere, state of capital structure, human resources structure, business unit strength, financing and investment activities, compliance with standards of economic decisions, accountability relationship

Intervening conditions are divided into two main categories: macro factors and micro factors. The first category includes social-cultural and economic-political subcategories, while the micro category includes organizational environment and structure.

- Strategies: Strategies are specific actions or interactions that result from the central phenomenon. Strategies provide a solution to face the phenomenon; that is, managing how to address and implement the central phenomenon.

Table 5. Open Coding and Terms Related to Strategies

	Main component	Subcategory	Concepts
Interrupting conditions	Macro factors	Qualitative features	Comprehensible, manageable, timely, complete, unbiased, and error-free, weighting between qualitative characteristics, usefulness in prediction, usefulness in evaluation, verifiability, validity, consistency of procedure, adequate disclosure, comparability of companies
	Main article	Knowledge of information quality	Qualitative recognition of accounting information, determination of usefulness according to the type of beneficiaries, knowledge of assets with a useful life, re-evaluation of information, knowledge of the uncertainties of financial statements, and knowledge of the reliability of information
		Characteristics of information	Information exposure, information user, information environment, information need, attention, stop, review, receive, return
		Knowledge creation	Collecting and storing knowledge, converting tacit knowledge into explicit knowledge, developing accounting and auditing, financial, economic, commercial and organizational knowledge, transformation, developing the evaluation process and information processing, creating logical reasoning, evaluation
		Application of information	Information distribution and application, information transmission, information filtering, the ability to produce correct information, analyzing complex information, deriving and understanding financial statement information, creating information value, improving information quality, creativity and innovation using information

The first strategic category is the value of information, which includes three subcategories: qualitative characteristics, awareness of information quality, and information characteristics. The second category in knowledge and information management strategies includes the two categories of knowledge creation and information application.

- Consequences: Consequences refer to outputs or results of action/reciprocal action. In this research, the results in two main categories include the conditions of uncertainty and the lack of career development. Conditions of uncertainty have two subcategories of information asymmetry and capital market inefficiency and the lack of career development, including two subcategories of reducing professional quality and reducing organizational status.

Table 6. Open Coding and Conditions Related to Outcomes

	Main component	Subcategory	Concepts
Consequence	Uncertainty conditions	Information asymmetry	Increase in the cost of education and obtaining information, agency conflict, increase in agency costs, increase in transaction costs, decrease in liquidity of shares, increase in the cost of equity and the cost of the company's debt.
	Lack of professional development	Capital market inefficiency	Decrease in the amount of transactions, decrease in investors' well-being, increase in financing cost, high transaction costs, decrease in liquidity, dispersion of company's profit forecast, profit forecast error, decrease in company's value, company's discredit, risk of estimating future profits, failure to recognize profit management, intensification of behavioral distortions
		Reducing the quality of the auditing profession	The necessity of reforming auditing standards, reducing the quality of financial reporting, misleading in discovering distortions of financial statements, covering up distortions of financial statements, damage to a person's mental and behavioral health, job failure, leaving a job, job stress, increasing destructive and deviant behaviors, reducing the quality of auditing, making incorrect decisions
		Loss of organizational status	lack of organizational dynamism, customer dissatisfaction, lack of social support, unfavorable organizational development, executive incapacity of managers, weak performance, loss of competitive advantage, managerial instability, decrease in organizational performance, decrease in efficiency and effectiveness

In this research, the proposed model was drawn in the following profile, considering the preliminary studies, the opinions of the interviewees, and the analysis of the collected data.

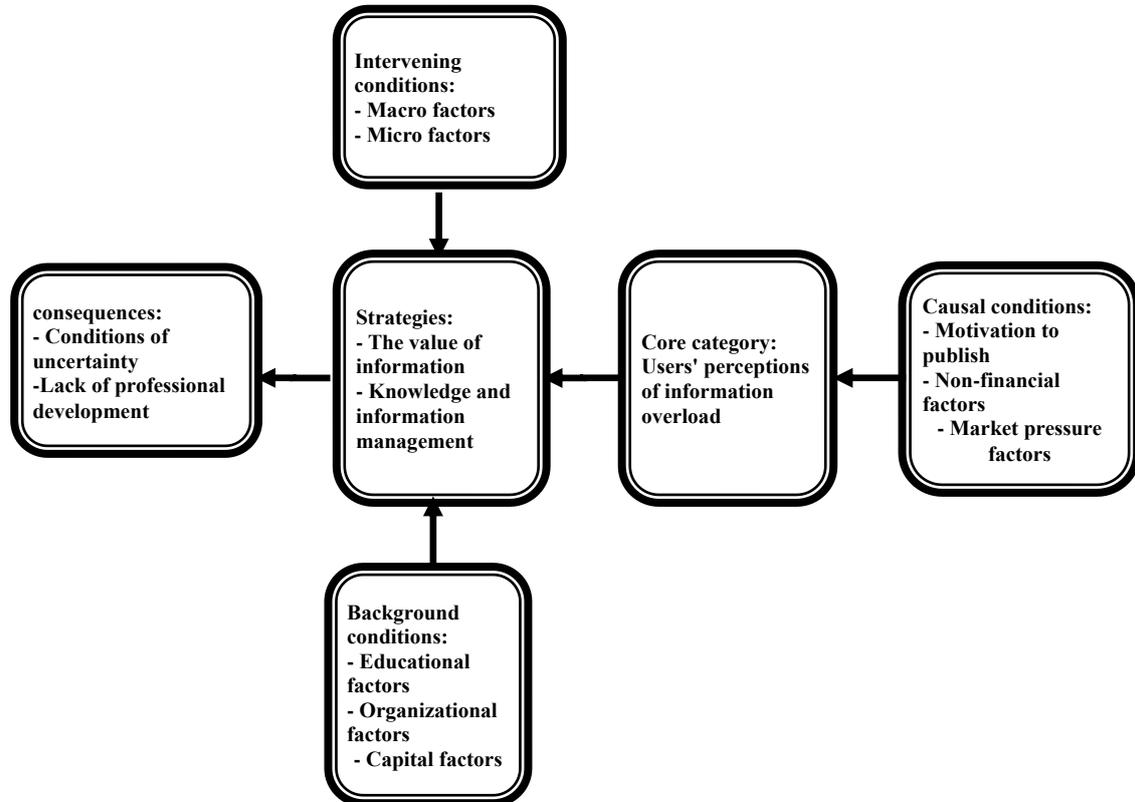


Fig. 1. The Conceptual Model of Research

Discussion and Conclusion

This research aims to provide a model for users' understanding of information overload in financial reporting using a qualitative approach based on foundational data theory. The central category is information overload, and its understanding of financial reporting by users was developed. The final model was presented according to causal, background, and intervening conditions, and strategies, and consequences. Information was collected using semi-structured interviews by 13 experts. They were recruited using snowball sampling until the saturation stage, and the data analysis method was content analysis using three stages of coding (open, central, and selective) and MaxQD software. In this regard, macro-categories, primary categories and subcategories extracted from research data (interviews) were analyzed. According to the concept of information overload, from the participants' perspective, a model of users' understanding of information overload in financial reporting was presented as a paradigm model that includes causal conditions, contextual conditions, intervening conditions, strategies, and consequences.

The causal conditions in this study consisted of the factors that, according to the experts and based on the foundation's data theory, had an impact on the users' understanding of information overload, which includes the three main categories of information dissemination motivation, non-financial factors, and factors related to market pressure. According to the results, information overload increases the conditions of uncertainty, which is in line with the findings of Binh (2012), Ajina et al. (2015), and Hung and Cheng (2018). Intervening conditions are micro and macro factors; background conditions include educational, organizational, and capital factors. The disclosure of qualitative and quantitative information in these fields allows users to understand the context and the numbers, thereby providing a general picture of the nature and the extent of risks caused by additional information, so that users can better assess vulnerability to risks. This issue can improve users' decision-making ability to process and weigh the observed information. To limit the adverse perception of investors and create awareness about the company's prospects, companies publish additional information to help improve the

company's financial status and managerial image, while information overload increases uncertainty. This, in turn, increases the need to monitor management activities and subsequently causes an increase in financing costs and a decrease in the company's value.

Practical implications

- 1) The additional burden of information and the complexity of information cause uncertainty, increase the risk, and decrease the value of the company; it may lead to suspicion and unethical behavior; therefore, it is suggested to have the necessary supervision and control on the way of disclosure. Information, especially the voluntary disclosure of information in companies, and restrictions should be applied so that additional and surplus information does not enter the market and does not mislead users and damage financial reports, making decisions better and more useful for users and investors.
- 2) The accounting standards authorities should take necessary measures to encourage companies to voluntarily disclose information related to profit quality in explanatory notes.
- 3) It is suggested to the investors that explain the behavior of the stock prices of the companies in the Tehran Stock Exchange, the structure of the company's management system, such as the presence of institutional shareholders in the composition of shareholders and the presence of non-compulsory members in the composition of the board of directors, as well as the state of competition in the product market.
- 4) It is suggested that the necessary supervision and controls be carried out on the disclosure of information, especially the voluntary disclosure of information in companies, and that restrictions be applied so that additional and surplus information does not enter the market, mislead users, or damage financial reports to make better decisions for users.
- 5) It is suggested that legislators set a framework so that information is more transparent and accessible, leading to more correct decisions regarding optimal resource allocation. Future studies should discuss the relationship between complex areas in financial reporting and information overload and the mediating role of cognitive and metacognitive factors.
- 6) Future researchers can also implement the proposed model of the present research as a case study in several academic and executive institutions and organizations and publish their results to compare them. This will lead to the modification of models and the creation of broader practical bases.
- 7) Interdisciplinary researchers are also suggested to implement the proposed research model and to compile it in other disciplines. By publishing their findings, they can make the literature richer, broader, and more refined.

Research Limitations

The current research was conducted using the foundational data theory qualitative research method, and the data were collected using semi-structured interviews. Therefore, the inherent limitations of qualitative research, such as the possible effect of judgments on the data and the inference of the research model, may also apply to the current research. On the other hand, the most critical limitation of this research concerns the research method, which, of course, is an inherent limitation. Although foundational data theory is beneficial for indigenous theories, such as other qualitative research methods, it faces the limitation of generalization. The results of this research may not be applicable in other countries.

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