

ANALYTICAL READING OF INTEGRATED REPORTING AS ONE OF THE MANIFESTATIONS OF INFORMATION OVERLOAD

Manal Hussein Lafta, AL-IRAQIA University
Ruaa Mustafa Kamil, AL-IRAQIA University

ABSTRACT

The research is concerned with a very important phenomenon, which is the phenomenon of information overload as one of the concepts that must be taken into account when dealing with information. It is produced and presented to users, within the framework of the integrated reporting system and the accompanying integrated reports based on financial, environmental, social and governance information. This study requires presenting the intellectual structure of integrated reporting and determining the extent of its convergence in vision with the phenomenon of information overload. It was restricted to three dimensions to embody the intellectual structure of integrated reporting, represented by the following:

- *Intellectual foundations for integrated reporting*
- *Integrated reporting goals*
- *Integrated reporting requirements*

This intellectual structure includes many aspects or areas of information overload that contributes to creating the causes that lead to the emergence of the phenomenon of information overload and providing an appropriate environment for it. Also, because of the integrated reporting, it is embodied in a few axes represented by the financial, environmental, social and governance axis and these axes together will lead to providing information to the investor (and to users in general) that exceeds his ability to absorb due to its complexity, abundance and large size. This gives way to the emergence of indicators that confirm the presence of information overload, especially regarding the time factor required for the processing and assimilation of information by the user.

In addition to what is related to the characteristics of information such as the level of ambiguity, uncertainty or complexity, aspects related to the user's person regarding this information and its abundance, confusion and other areas are raised by the research.

Keywords: Accounting Information Systems, Information Overload, Integrated Reporting

INTRODUCTION

Integrated reporting seeks to provide integrated reports that reflect a comprehensive picture of the organization by providing more information to management and stakeholders to enhance the decision-making process. Integrated reporting is based on an intellectual structure that includes the compilation of financial, environmental, social and governance information in an integrated report. At this point, the nature of integrated reporting information should be considered from a different viewpoint, which is the issue of information overload in light of this large amount of information that integrated reporting seeks to provide. From this point of view, the research problem is embodied in that the intellectual system of integrated reporting, represented by the composition of integrated reports and composed of financial, environmental, social and governance reports, constitutes the fertile ground for the emergence of the phenomenon of information overload. The research sought to prove that the integrated reporting, represented by its intellectual structure, constitutes one of the manifestations of information overload.

To achieve the goal of the research, the researchers followed the following mechanism:

- Establishing a scientific methodology for research.
- Presenting the literature of integrated reporting and the literature of information overload, then conducting an analysis of the extent of convergence in the vision that each of the two concepts holds.

Determining the nature of the relationship between integrated reporting and the phenomenon of information overload by conducting a field study based on the preparation of a questionnaire and its statistical analysis.

- Draw a set of conclusions and recommendations from the reality of the indicators produced by the field study.....

The First Axis: Research Methodology

First: The Research Problem

There is no doubt that integrated reporting achieves a number of benefits in terms of the quality of information available to investors, as one of the categories of users, and in order to achieve these benefits, the integrated reporting had to be based on an intellectual structure that requires the compilation of financial, environmental, social and governance information in an integrated report. This structure in itself creates the appropriate environment for the emergence of the phenomenon of information overload, which involves providing information to users beyond their ability to comprehend because of its large size and in various directions....

Thus, the research problem is embodied in that the intellectual system of integrated reporting, represented by the composition of integrated reports and composed of financial, environmental, social and governance reports, constitutes the fertile ground for the emergence of the phenomenon of information overload.

Second: The Purpose of the Research

The research aims to

1. Shedding light on a very important phenomenon, which is the phenomenon of information overload as one of the concepts that require attention when dealing with information, producing it and presenting it to users, within the framework of the integrated reporting system and the accompanying integrated reports based on financial, environmental, social and governance information.
2. Determining the nature of the relationship between integrated reporting and the phenomenon of information overload.

Third: The Importance of Research

The importance of the research stems from the nature of integrated reporting, which seeks to provide integrated reports that reflect a comprehensive picture of the organization by providing more appropriate and understandable information for management and stakeholders to enhance the decision-making process. At the same time, increasing the importance of thinking about the nature of integrated reporting information from another point of view, it is the issue of information overload according to this large amount of information that integrated reporting seeks to provide.

Fourth: The Research Hypothesis

The research is based on a main hypothesis that:
There is a statistically significant relationship to "integrated reporting as one of the manifestations of information overload"

The following sub-hypotheses emerge from this hypothesis:

1. There is a statistically significant relationship to the intellectual foundations of integrated reporting as one of the manifestations of information overload.
2. There is a statistically significant relationship to the objectives of integrated reporting as one of the manifestations of information overload.
3. There is a statistically significant relationship to the requirements of integrated reporting as one of the manifestations of information overload.

The Second Axis: Integrated Reporting - A Conceptual Introduction

First: The Intellectual Foundations of Integrated Reporting

The 2007-2009 global financial crisis was the catalyst for the creation of the International Integrated Reporting Council (IIRC), founded in 2010, which aims to develop Integrated Reporting (IR) as a means to enhance financial stability and rebuild confidence in financial markets, and thus its ability to serve the economy (Bhasin, 2017).

IIRC highlights issues such as business strategy, governance, performance, expectations and recognition of divergent social and political understandings of sustainability and its implications on assessing issues of “value” and “materiality”. Among the forty (IIRC) members, the heads of the IASB, IFAC, FASB, the International Organization of the Securities and Exchange Commission (IOSCO), the chief executives of the "Big Four", the chairmen of Britain's main professional accounting bodies, and the chief financial officers of several major international companies including Nestlé, HSBC and Tata and involved. The council was controlled over and significantly outnumbered by accounting professionals, preparers and regulators who made up more than half of its members. Many organization representatives have promoted environmental and social accounting (Morros, 2016). This global coalition shares the view that communication about value creation should be the next step in developing corporate reporting (The IIRC, 2013). IIRC creates a universally accepted IR framework that brings together financial, environmental, social and governance information in a clear, concise, consistent, and comparable format (Morros, 2016).

Integrated reporting is a process based on integrated thinking that results in an integrated periodic report on how the strategy of the organization, performance, governance and prospects outside its environment. This is to create value for stakeholders in the short, medium and long term, including employees, customers, suppliers, communities, regulators and policy makers (IIRC, 2018). They often look not only for financial statements, but their focus on (where, why and how) organizations will add value, and the way they use them to approach sustainability and responsibility (Albetairi et al., 2018) which constitutes an advanced step in terms of corporate social responsibility and sustainability reporting, as it seeks to provide a more comprehensive picture of modern companies by moving from independent sustainability reports or social responsibility reports to an integrated approach to thinking and communication that includes non-financial information on environmental and social metrics. It also integrates these metrics with traditional financial reporting. Accordingly, the integrated report represents the new direction of reporting that provides a complete picture of the organization (Camodeca & Almici, 2017). IR primarily targets value creation in relation to the organization itself and other stakeholders considering the six types of capital as defined by (IIRC) which include financial, manufactured, human, natural, social and relational capital which is seen as the cornerstone of the activities of each company (Adegboyegun et al., 2020), and integrated reports are unique in that they look at these capitals in a coherent way, taking into account how they interact with each other and influence, in contrast to the independent sustainability reports (IIRC, 2018). Despite the inference is oblique and nuanced, it is obvious that the goal is to define value in a way that does not prioritize capital funders over all other considerations when defining or producing value. It takes a wide picture of the company's impact on society and shareholders. To guarantee long-term viability, companies must increasingly evaluate, manage, and evaluate the values they generate for society and shareholders, since they must make a decision based on both company and social creating value (Morros, 2016).

An integrated report can take many different forms and a fully integrated approach to reporting is often developed, meaning diversity in practice as there are no other detailed requirements such as the alternatives proposed by IIRC in the first stage (Pricewaterhouse Coopers (PWC), 2012):

- Publish a stand-alone integrated report as an addition to the legally required annual report and other mandatory or voluntary reports.
- Combine information normally included in additional reports (e.g. a sustainability report) with the information proposed for an integrated report while maintaining an annual report that includes the financial report and management comments (a mix).
- Publish a single document that follows the integrated reporting guidelines and covers the content elements of an integrated report but still includes all financial and non-financial regulatory information (integration while retaining previously reported information).

IR is based on seven guiding principles: strategic focus, future direction, stakeholder relations, information communication, materiality, accuracy, reliability and completeness as well as consistency and comparability. These principles ensure that the integrated report discloses strategies as well as other information about the entire company, in time the same components of the Integrated Report include an overview of organization and external environment, governance, business model, risks and opportunities, strategies and resource allocation, performance, prospects as well as the basis for preparation (presentation). Together, these eight elements form the core of IR as defined by IIRC. Hence these principles and elements ensure that there is a clearly reported correlation (relationship) between financial and non-financial information in an effort to form a base layer for assessing the current performance and future status of the business (Adegboyegun et al., 2020).

Second: Objectives of Integrated Reporting

IIRC explains that the purpose of integrated reporting is to be a summary communication on the way organization's strategy, management, performances, and aspirations add value in the short, medium, and long term in the context of its external environment. IIRC notes several limitations of traditional investor-oriented financial reporting. For example, the council criticizes Financial reporting because it focuses on past financial information and there is no relationship between financial reporting and sustainability reporting (Ito & Iijima, 2018). IIRC has set the following goals for integrated reporting:

The first objective is to improve the quality of information available to capital financiers: Decision makers vary widely in the types of decisions they make, how they make decisions, the information they already own or can obtain from other resources, and their ability to process the information. For the information to be useful, there should be a link between the decision makers and the decisions they make. This link represents the quality of the information that allows reasonably informed users to understand its importance (Obaidat, 2007). The quality of accounting information also refers to linking financial and non-financial information to enable investors to obtain information that contributes to decision-making. The main target audience according to IIRC are capital financiers, *i.e.*, investors, and annual reports are limited to disclosure previous financial information as information for investors, but it should also disclose non-financial information that could affect future financial performance, such as environmental, social and governance information (Ito & Iijima, 2018). Information quality has characteristics that can meet or exceed the expectations of information users. Quality is a word that describes the characteristics of information that make it useful to them (Sari & Purwanegara, 2016). Adherence to the qualitative characteristics of information is a prerequisite for preparing high quality financial reports that are more useful to investors in order to make investment decisions (Rosa & Purfini, 2019). High-quality information has the characteristics, or quality that make the information available in a timely manner, easy to understand and verifiable (Algrari & Ahmed, 2018). Although the quality of accounting information is difficult to monitor and measure, it can be evaluated based on characteristics such as perseverance, conservatism,

management of accounting profits, quality of accrual measurement, transparency, level of disclosure, and the relationship of accounting numbers to the performance of stock prices or the market value reported by companies (Moura et al., 2017).

He adds (Ito & Iijima, 2018) the following other goals:

The second objective is to promote a more coherent and effective approach to corporate reporting that relies on different reporting chains, *i.e.*, disclosure of value creation by linking annual reports with sustainability reports that have been issued without any correlation between them. This disclosure is beneficial to investors as well as other stakeholders, such as shareholders, financial institutions, customers, local communities, and employees affected by a particular company's strategies may want information about the strategy, or even want to engage in a dialogue with the company.

The third objective aims to enhance the understanding of capital, in the sense of revealing the results of the company's commercial activities as a broad base of capital (financial, manufactured, intellectual, human, social, relationship and natural capital). It aims to clarify their interconnections. Thus, the integrated report fulfills the accountability of the company to shareholders by disclosing the capital at the beginning and end of the period, and also fulfills the responsibilities of supervision through the participation of stake holders, in addition, the institution can fulfill its responsibility by engaging with stakeholders regarding the value creation process that affects the interdependence of capitals. Enhanced understanding of capital expands the concepts of accountability and supervision that are restricted to shareholders and investors by clarifying the interdependence of capitals, thus achieving accountability and oversight of shareholders.

In the fourth objective, the Integrated Thinking refers to the disclosure of information with a focus on creating value for the company in the short, medium and long term. Annual reports only disclose past financial information, on the other hand, integrated reporting needs to include financial information for annual reports and non-financial information for sustainability reports to be disclosed in connection with the short, medium and long term value creation process. Integration through the value creation process is the essence of integrated reporting.

Based on the foregoing, the purpose of integrated reporting is to integrate both financial and non-financial information, and IIRC focuses on providing information to all stakeholders, rather than just focusing on investors.

Third: Integrated Reporting Requirements

The move towards integrated reporting should begin with a status quo analysis that helps reveal key issues and identify areas of focus in the implementation process. This sets the starting point for developing an integrated reporting roadmap. In other words, companies will need (Pricewaterhouse Coopers (PWC), 2012):

1. Understand where they are reporting and what level of integration they want to achieve and in what time frame.
2. Analyze their current business model and develop a good understanding of relevant value drivers, including those related to social and environmental impacts.
3. Assessing risks and opportunities along the value chain, taking into account financial, social, environmental, economic and governance issues and trends.
4. Take the strategy into account stakeholder expectations and sustainability issues.
5. Defining physical KPIs to track performance.
6. Implement necessary organizational changes, particularly with regard to structures, processes and systems for collecting, monitoring and reporting performance data.
7. Building awareness about the new reporting approach and the meaning of integrated thinking.
8. Determine the information you want to communicate and how to present it.

Fourth: Benefits of Integrated Reporting

Integrated Reporting (IR) enhances the operational efficiency and effectiveness of the organization and leads to the achievement of the organization's goals and mission in the long term and helps stakeholders understand the interrelationship between company performance and its effects on people and the environment. It also enhances understanding of internal decision makers regarding the relationship between different functions and their nature and potential impacts (Albetairi et al., 2018). IR offers a number of benefits, including a somewhat more comprehensive view of data pertinent to a company's strategy of the business, the ability to create and maintain value over the short, medium, and long term, and the potential to increase service and access to input from a range of sources. With the linked procedures and information consolidation, internal and external information is consolidated. IR also helps to simplify investigating by allowing for more reuse of reporting elements, transparency and collaboration in reporting, and the use of analytical concepts by internal and external analysts, as well as giving more pertinent and meaningful guidance to management and stakeholders to improve decision-making and personalization. Also it gives excellent access to financing and other assets to capital markets and trading partners. In addition, it gives a competitive advantage through cost savings, operational efficiencies and differentiation (Pricewaterhouse Coopers(PWC), 2012).

Fifth: Challenges of Adopting Integrated Reporting

Companies face a number of obstacles in the voluntary adoption of (IR) represented in finding a smooth and appropriate adoption for business communities and investors, because companies need to know the main risks and opportunities of integrated reports and determine how to integrate integrated reports as part of the current reporting requirements. There is also a need to convince the board of directors that the benefits of adopting integrated reporting are greater than the costs involved, as well as the appointment of a regulatory body that sets and implements integrated reporting standards and the potential expansion of the responsibility of board members. In order for integrated reporting to be an effective mechanism to promote accountability, all members of the organization need to adopt integrated thinking approaches and structures within reasonable logical ambition, motivate implementers, facilitate and empower stakeholders to adopt integrated reporting so that the maximum impact of integrated reporting can be achieved. How the business model creates value understand trends that affect the operating environment identifies metrics critical to value creation gather reliable data, analyze and derive insights. This shows the interrelationships among strategy, objectives, performance, risks and incentives, as well as identifies what can be done to further enable integrated thinking and decision-making. So organizations need to ensure that their ambitious features are aligned with the company's foundational social and economic vision so that their full integrated reporting potential can be realized (Singha et al., 2019). Integral thinking remains “immature” with regard to determining the value that organizations derive from resources such as intellectual and other non-financial capital. The framework itself also failed to specify which KPIs should be used by those responsible for integrated reporting (ACCA, 2017) IIRC did not establish all the areas required for integrated reporting but rather focus only on value for investors, which tends towards capitalism rather than value to society. The implementation of integrated thinking is hampered by the imbalance in the role of the top management and the culture of the organization that may not be motivated by enthusiasm at the lower management levels. Decision makers should move away from focusing on short- to medium-term goals and promote integrated long-term thinking to maintain a sustainable future for the organization, therefore integrated reports are not always comparable and reduce the usefulness to some stakeholders, integrated reports should be prepared honestly so that it gives the picture the real long-term value creation of the enterprise (Singha et al., 2019).

The Third Axis: The Intellectual Foundations of Information Overload

First: The Concept of Information Overload

The term "Information Overload (IO)" is frequently utilized for the basic thought of receiving as well much data. The utilize of this term has driven to numerous equivalent words and terms, such as cognitive over-burden, tangible over-burden, communication over-burden, knowledge over-burden, or information weariness disorder (Eppler & Mengis, 2003). The term "information overload" was popularized by Alvin Toffler in the 1970s from the last century he described it as "the difficulty that an individual faces when deciding that there is excessive information (Hoq, 2014). "One of the initial general definitions was put forward in 1977 by Milford et al, as follows: Information Overload (IO) occurs when the amount of inputs into a system exceeds its processing capacity." This classic concept was later expanded by Tushman and Nadler in the same year and explained by the Information Processing Requirements (IPR) vs. Information Processing Capabilities (IPC). The two terms can be interpreted as (Rachfall et al., 2015):

1. Information processing ability: Information processing can be characterized by individual aspects (such as: desire, acceptance, motivation, knowledge, relevance, etc.) the basic question is: What is the size of the individual cognitive ability?
2. Information processing requirements: Information processing can also be characterized by non-individual aspects (eg display format, access, completeness, number of options, time pressure, etc.). The essential question is: How much ability is required to solve the problem/decision making?

The terms "requirements" and "capabilities" can be measured in terms of time accessible. Prerequisites allude to a certain sum of information that must be handled amid a certain period of time, and on the off chance that an individual's ability as it were permits a little sum of information to be held within the time accessible, at that point Information Overload (IO) will happen. The time calculates is the foremost vital issue related to the issue of increase of information. In other thinks about, it isn't as it were related to the sum of information and accessible preparing time (the quantitative measurement), but it moreover to the characteristics of information (the qualitative measurement), as a few allude to the total quality or the benefits of the accessible information and the different characteristics of information, such as the level of equivocalness, vulnerability, complexity, etc., which characteristics of the data or these quality traits can contribute to overabundance or modest representation of the truth. Other than these definitions that endeavor to impartially portray and degree the marvel of overindulgence, there are also studies of overindulgence on the basis of subjective experience, where feelings of tension, confusion, stress, anxiety or low motivation are the critical factors that indicate the occurrence of information overload (Eppler, 2003).

Several researches have been conducted on information overload related to the fields of accounting, management, Management Information Systems (MIS), organizational science, marketing or more specifically consumer research, and the key emphasis of these researches is on the question of how an individual's performance (including appropriate decision making) differs with information size to which it is subjected. Analysts over disciplines stated that an individual's execution (*i.e.*, the quality of decisions or thinking in general) is positively correlated with the amount of information they receive - up to a certain point. It confuses the individual, and can have a negative effect on the individual's ability to prioritize in addition to remembering prior information or make it difficult to remember prior information (Eppler, 2003).

Information overload refers to a situation in which users of information fail to process any other information due to its large volume. Information overload is defined as an excessive abundance of relevant (and potentially useful) information that cannot be absorbed, or is overburdened with large amounts of unwanted (and potentially useful) information. It is a condition in which the volume of information supply exceeds the limits of the human ability to process information, and information overload is a case of impeding an individual's efficiency in using information in his work as a result of the amount of information available (relevant),

which may be useful. It has been linked to the information processing capability of information users. As the amount of information increases, so does the information processing and the quality of decision making (Hoq, 2014).

Based on the foregoing, the concept of information overload can be expressed as follows: There are limits to the amount of information that the human mind can absorb and process, and information overload occurs when these limits are exceeded, causing a decrease in the quality of the decision-making process and an increase in the costs of processing this information” (Romney& Steinbart, 2018).

Second: Reasons of Information Overload

Many studies on evaluating the causes of information overload have shown that it is usually the result of a group of overlapping factors. There are those who see that the key causes for information overload are linked to five main issues, and often the information overload appears due to a combination of all five reasons as follows (Eppler, 2003):

1. What is related to the information itself (quantity, frequency or intensity, quality or general characteristics)
2. An individual who gets, forms or transmits information
3. Tasks or forms to be finished by an individual, group or organization
4. Organizational plan (*i.e.*, formal and casual work structures)
5. Information technology utilized (and how it is utilized) within the company.

All five reasons affect the two primary variables of information overload - Information Processing Capability (IPC) - influenced for instance by personal features - and Information Processing Requirements (IPR). They are frequently controlled by the nature of the task or process.

There are those who focus on five sources of excessive accounting information: irrelevant information, repeating information, lack of time to understand the information effectively, and too much information. There is also the poor quality of information (AL abdullah & As' ad, 2008).

The nature of information itself is an important reason for information overload, not just the amount of information. The specific characteristics of information such as uncertainty level linked with the information and ambiguity, complexity, novelty, severity level, and improving the quality of information can improve an individual's ability to process information. They create the ability of using high-quality information faster and more efficiently than the unstructured and unclear information (Eppler, 2003). Also, the diversity of different sources of information is a major reason for information overload, as different sources can lead to the accumulation of unimportant and inappropriate information, and other studies have been classified, such as the study issued by the Educational Innovations Laboratory in the College of Studies Harvard University Graduate School, entitled " Information overload: Causes, Symptoms, and Solutions", the causes of information overload in different ways, as the reasons were organized using the five categories represented by the following: people, technology, organization, processes and tasks, characteristics of information (Kashada et al.,2020).

Third: The Problem of Excessive Disclosure in Financial Reports

Information overload in financial reporting is a significant and growing problem, and many stakeholders, most notably, the authors, argue that the large amount of financial statements disclosures are generally characterized by negatively impacting the usefulness of financial reporting and adding unnecessary complexity to financial reporting, which has led some to claim that the financial reports are unhelpful or confusing (Drake et al., 2019), and various reasons have been attributed to increased disclosure including increased complexity of

the underlying transactions themselves as well as not properly using the materiality criterion (Saha et al., 2019).

Fourth: The Effect of Information Overload

The Reuters report identified some of the effects of information overload as follows (Allen & Wilson, 2003):

1. Wasting time: 38% of managers surveyed reported that they waste a lot of time searching for information.
2. Delayed decision making: 43% of the respondents believed that decisions were delayed or negatively affected because there was too much information.
3. Distraction: 47% of respondents stated that they are distracted from their main tasks.
4. Stress: leads to tension with colleagues, loss of job satisfaction, ill health (reported by 42%), decreased social activity (61%) and fatigue) 60%).

The losses resulting directly or indirectly from information overload are estimated at \$650 billion worldwide each year, an amount equal to the GDP of Switzerland in 2015 (Roetzel, 2018).

Excessive disclosure can negatively affect the usefulness of financial reports (Drake et al., 2019). Several studies have concluded that the increasing volume of disclosures has further complicated AFS annual financial statements, which It resulted in many negative effects, represented by the following (Sampers, 2013):

1. The large volume of disclosure confuses the users of the annual financial statements AFS (Annual Financial Statements).
2. Excess disclosure resulting from extensive non-physical disclosures leads to the withholding of appropriate information.
3. The preparers must spend a great deal of time, effort and cost in preparing all these disclosures, especially since the various disclosures exceed the needs of management to accomplish their work.

The Fourth Axis: Integrated Reporting and Information Overload- Convergence in the Vision

This axis is concerned with presenting the extent of convergence in the vision carried by the concept of both integrated reporting and information overload.

The researchers begin this axis with the following question:

Does the intellectual structure of integrated reporting provide the reasons for the phenomenon of information overload?

To answer this question, researchers believe that the intellectual structure of integrated reporting includes many aspects or areas of information overload, as it contributes in all its dimensions to creating the causes that lead to the emergence of this phenomenon and providing an appropriate environment for it. Because integrated reporting is embodied in a few axes represented by financial, environmental, social and governance, these axes combined will lead to providing information to the investor that exceeds his ability to absorb, which represents one of the manifestations of information overload.

The intellectual foundations of integrated reporting in themselves are what create the appropriate ground for the emergence of a situation of information overload through the composition of integrated reports consisting of financial, social, environmental and governance reports...

As for the objectives of integrated reporting, they are the ones that carry with them a large part of the situation of information overload... and this is embodied in each of these objectives, which are in fact built on the basis of presenting a set of reports at the same time, which can confuse the user of these reports beyond his ability to process the information it contains, and therefore needs more time and effort in order to employ its content for the purposes behind its use, and this in itself is one of the manifestations of information overload...

As far as the requirements of integrated reporting, which were previously referred to in the first axis, are concerned, it is indicated by their large number and then the increase in the volume of details imposed by these requirements on integrated reports. Meeting these requirements in all their dimensions will lead to the creation of conditions that provide the opportunity greatly to the phenomenon of information overload. We will try, through the field study, in the following axis, to present this vision and apply it to the Iraqi environment.

The Fifth Axis: Field Study

First: The Research Population and Sample

The research population was represented by a number of academics, professionals and investors in the Iraq Stock Exchange. A random sample was selected from this community for the purpose of filling out the questionnaire, where the number of forms approved in the statistical analysis was (100) forms. Table (1) shows the classification of the sample members according to the age group, as it indicates that the percentages of the distribution of the sample members according to the age groups are close to most of them (25%, 30%, 45%), which gives an indication about the size of perception that the sample members enjoy due to the age group as well as their ability to express their opinion as far as integrated reporting is concerned.

Sample	Age groups			Total
	25 to 30	31 to 40	41 Or older	
Repetitions	25	45	30	100
Percentages	25%	45%	30%	100%

Table (2) indicates a description of the classification of the sample members according to educational attainment, and we note that the largest number of the sample members were those who hold a master's degree and a doctorate at a rate (46% and 30%), respectively. It indicates that the majority of the sample members have good educational attainment. This qualifies them to express their opinion in a manner that can be relied upon in analyzing the answers and formulating conclusions in the light of the results that have been reached.

Sample	Academic qualifications			Total
	Master	PhD	Others	
Repetitions	46	30	24	100
Percentages	46%	30%	24%	100%

Table (3) shows the classification of the sample members according to their professional and scientific experience, and we note from the results of the table that (46%) have experience (from 11 to 20 years) and (30%) have experience (1 to 10 years) and (24) % have experience (21 years or more), and these results clearly show that about (70%) have experience ranging from (11 years to 21 years and more). This indicates that they have good experience that enables them to answer the questions of the questionnaire with a high degree of precision.

Sample	Years of experience			Total
	1 to 10	11 to 20	21 or more	
Repetitions	30	46	24	100
Percentages	30%	46%	24%	100%

Second: Presentation and Analysis of the Results of the Questionnaire

A- Descriptive Statistics Results

This part of the research seeks to present and analyze the results of the field study conducted by the researchers, using the descriptive statistics tools represented by the arithmetic mean to determine the extent to which the selected sample agrees with the paragraphs of the questionnaire. The standard deviation was also used to estimate the absolute dispersion of the answers, the sample members about the mean to estimate the relative dispersion in order to draw a picture or a general framework for respondents' preference and general orientations with regard to research variables, through the five-point Likert scale.

The questionnaire consisted of (15) items distributed in three dimensions, the first dimension (the intellectual foundations of integrated reporting), which included (5) items, while the second dimension (the objectives of integrated reporting), which included (5) items, and the third dimension (the requirements of integrated reporting) which included (5) items, and (100) questionnaires were adopted for the purposes of statistical analysis.

1-Presentation and interpretation of the results of the arithmetic mean and standard deviation of the first dimension (the intellectual foundations of integrated reporting), as Table (4) shows the arithmetic means, standard deviations, and the coefficient of variation.

No	Questions	Answers										Arithmetic mean	Standard deviation	Variation coefficient
		Totally agree		Agree		Neutral		Disagree		Totally disagree				
		no	%	no	%	no	%	no	%	no	%			
1.	Integrated reports, based on the compilation of financial, environmental, social and governance information, confuse the users of these reports due to the enormity of their information, which embodies the phenomenon of information overload.	39	39 %	42	42 %	14	14 %	5	5%	0	0	4.1	0.99	24.14%

2.	The large volume of integrated reports information leads to the delay in making decisions by its users and reducing their efficiency in dealing with this information, which indicates the occurrence of information overload.	35	35 %	60	60 %	3	3%	2	2%	0	0	4.28	0.62	14.51%
3.	The large volume of integrated reports information negatively affects the ability of the user of these reports to set priorities and the difficulty of remembering previous information, which embodies the phenomenon of information overload.	43	43 %	47	47 %	10	10 %	0	0	0	0	4.33	0.65	15.06%
4.	Integrated reporting's adoption of a comprehensive vision, which recognizes the broader value that the company creates for both society and shareholders, increases the level of ambiguity and uncertainty about its information, which creates a greater opportunity for information overload to occur.	28	28 %	45	45 %	21	21 %	6	6%	0	0	3.95	0.86	21.70%

5.	The eight elements on which integrated reports are based (represented by organization and external environment, governance, business model, risks and opportunities, strategies and resource allocation, performance, prospects, presentation) contribute to providing information that is characterized by complexity and confuses users in light of the lack of time required to absorb it, which indicates the occurrence of information overload	40	40 %	31	31 %	25	25 %	3	3%	1	1%	4.06	0.93	22.91%
		185	37.00 %	225	45.00 %	73	14.60 %	16	3.20%	1	0.20 %	4.14	0.47	11.25%

It is clear to us from the results presented in Table (4) that most of the sample members responded positively and to a large extent on all paragraphs of this dimension about (the intellectual foundations of integrated reporting), with an arithmetic mean (4.14), a standard deviation (0.47), and a coefficient of difference (11.25%). The results were distributed among the highest level of the answer, which was achieved by the third item including (the large volume of integrated reports information leads to a negative impact on the ability of the user of these reports to determine priorities and the difficulty of remembering the previous information. It embodies the phenomenon of information overload, as the mean value of it reached (4.33) and with a deviation standardized between the answers (0.65) and with a coefficient of difference (15.06%). This reflects the amount of very small dispersion in the answers of the sample members, as well as the negative impact, of large sizes of integrated reports information, on the ability of the user of these reports to set priorities and the difficulty of remembering the previous information. This embodies the phenomenon of information overload. While the lowest value of the arithmetic mean for the fourth items included the adoption of integrated reporting for the comprehensive vision, which recognizes the broader value that the company creates for both society and shareholders, increases the level of ambiguity and uncertainty of its information, which creates a greater chance of information overload, the value of the arithmetic mean reached (3.95) with a standard deviation (0.86) and a coefficient of variation (21.70%). This reflects the degree of difference of the sample members in that the adoption of integrated reporting for the comprehensive vision recognizing the broader value that the company creates for both society

and shareholders, leads to an increase in the level of ambiguity and uncertainty of information, which creates a greater chance of information overload.

2-Presentation and interpretation of the results of the arithmetic mean and standard deviation of the second dimension (integrated reporting objectives), as Table (5) shows the arithmetic means, standard deviations, and the coefficient of variation.

No	Questions	Answers										Arithmetic mean	Standard deviation	Variation coefficient
		Totally agree		agree		Neutral		Disagree		Totally disagree				
		no	%	no	%	no	%	no	%	no	%			
1.	Integrated reporting aims to increase the transparency of information accessed from a wide variety of internal and external information sources, and this diversification of sources is a major reason for information overload as it leads to the accumulation of unimportant and inappropriate information.	41	41%	52	52%	7	7%	0	0	0	0	4.3	0.61	13.98%
2.	The integrated reporting aims to provide simplified reports through more reuse of the elements of the reports, which causes the repetition and abundance of information contained therein, thus embodying an information overload.	53	53%	33	33%	12	12%	2	2%	0	0	4.4	0.85	19.43%
3.	Integrated reporting aims to enhance the quality of information available to users by providing financial and non-financial information,	23	23%	53	53%	20	20%	4	4%	0	0	4	0.77	19.50%

	such as environmental, social and governance, and this in turn confuses users and delays decision-making due to the large volume of information, which indicates the presence of information overload.														
4.	The goal of integrated reporting is to enhance the understanding of capital (financial, manufactured, intellectual, human, social and natural) and to clarify their interrelationships, and this in turn spends a lot of time searching for and absorbing the required information and distracts the user from the main tasks, embodying the phenomenon of information overload.	27	27%	44	44%	23	23%	4	4%	2	2%	3.9	0.92	23.48%	
5.	Integrated reporting is concerned with the disclosure of information that focuses on creating value for the company in the short, medium and long term, causing an increase in the level of ambiguity, complexity and uncertainty of information, indicating the presence of information overload.	39	39%	50	50%	11	11%	0	0	0	0	4.3	0.65	15.25%	

		183	36.60%	232	46.40%	73	14.60%	10	2.00%	2	0.40%	4.2	0.32	7.64%
--	--	-----	--------	-----	--------	----	--------	----	-------	---	-------	-----	------	-------

It is clear to us from the results presented in Table (5) that most of the sample members responded positively and to a large extent on all paragraphs of this dimension about (integrated reporting objectives), with an arithmetic mean (4.16), a standard deviation (0.32) and a coefficient of difference (7.64%). The results were distributed among the highest level of the answer and were achieved by the second item including (integrated reporting aims to provide simplified reports through more reuse of the elements of the reports. This causes the repetition and abundance of the information contained therein, embodying information overload), as the mean value of it reached (4.35) with a standard deviation between the answers (0.85) and with a coefficient of difference (19.43%), which reflects the very small amount of dispersion in the answers of the sample members and the emphasis on the fact that integrated reporting aims to provide simplified reports through more reuse of the elements of the reports causing the repetition and abundance of information contained in it, thus embodying information overload. Yet, the lowest value for the arithmetic mean of the fourth item included integrated reporting aims to enhance the understanding of capitals (financial, manufactured, intellectual, human, social and natural) and clarify their interrelationships. This in turn exhausts a lot of time searching for and absorbing the required information and distracts the user from the main tasks embodying the phenomenon of information overload where the mean value was (3.90) with a standard deviation (0.92) and a coefficient of variation (23.48%). It reflects the degree of disagreement among the sample members about the goal of integrated reporting, which is to enhance the understanding of capital (financial, manufactured, intellectual, human, social and natural) and to clarify their interrelationships. It consumes a lot of time searching for and absorbing the required information and distracts the user from the main tasks, embodying the phenomenon of information overload.

3-Presentation and interpretation of the results of the arithmetic mean and standard deviation of the third dimension (integrated reporting requirements), as Table (6) shows.

Table 6
RATIOS, FREQUENCIES, ARITHMETIC MEAN AND STANDARD DEVIATIONS (INTEGRATED REPORTING REQUIREMENTS)

No	Questions	Answers										Arithmetic mean	Standard deviation	Variation coefficient
		Totally agree		Agree		Neutral		Disagree		Totally disagree				
		no	%	no	%	no	%	no	%	no	%			
1.	The absence of a single and integrated formulation to create value for the organization according to the integrated reports leads to the provision of ambiguous and uncertain	44	44%	39	39%	12	12%	3	3%	2	2%	4.2	0.91	21.67%

	information, which contributes to creating an opportunity for the emergence of information overload.														
2.	Diversity in practice and the absence of detailed requirements for the form and content of integrated reports contribute to providing information that causes distraction to users and exhausts a lot of time to search for information, which is one of the manifestations of information overload.	44	44%	35	35%	17	17%	3	3%	1	1%	4.2	0.89	21.34%	
3.	Integrated reporting requirements that take into account the interrelationship between the organization's activities and its performance (financial and non-financial) and its results in terms of capital (past, present and future) and what affects its ability to create value over time, cause users to be confused with a lot of information and the lack of time to understand and absorb it effectively which, in and of itself, is an information overload.	29	29%	41	41%	24	24%	6	6%	0	0	3.9	0.88	22.37%	

4.	Integrated reporting requires an assessment of risks and opportunities along the value chain, taking into account the financial, social, environmental, economic and governance aspects, which causes the provision of information that is characterized by complexity and abundance and contributes to delayed decision-making, which creates a greater opportunity for information overload.	32	32%	50	50%	16	16%	2	2%	0	0	4.1	0.81	19.76%
5.	Integrated reporting requires the implementation of necessary organizational changes and those related to structures, processes and systems for collecting, monitoring and reporting performance data, which leads to providing information that confuses the user and negatively affects his ability to set priorities and difficulty remembering previous information, and this embodies the phenomenon of information overload.	22	22%	51	51%	19	19%	6	6%	2	2%	3.9	0.9	23.46%

		171	34.2 0%	216	43.2 0%	88	17.6 0%	20	4.00 %	5	1.0 0%	4.1	0.46	11.43%
--	--	-----	------------	-----	------------	----	------------	----	-----------	---	-----------	-----	------	--------

It is clear to us from the results presented in Table (6) that most of the sample members responded positively and to a large extent on all the items of this dimension about (integrated reporting requirements), with an arithmetic mean (4.05), a standard deviation (0.46), and a coefficient of difference (11.43%). The results were distributed among the highest level of the answer, which was achieved by the first item including (the lack of a single and integrated formulation to create value for the organization according to integrated reports leads to providing vague and uncertain information, which contributes to creating an opportunity for the emergence of information overload) as the mean value was (4.20) and with a standard deviation between the answers (0.91) and with a coefficient of difference (21.67%), which reflects the amount of very small dispersion in the answers of the sample members and the negative effects caused by the lack of a single and integrated formulation to create value for the organization according to the integrated reports, represented by providing ambiguous and uncertain information, which contributes to creating an opportunity for the emergence of information overload. Yet, the lowest value of the arithmetic mean of the fifth item included integrated reporting requires the implementation of necessary organizational changes and those related to structures, processes and systems for collecting, monitoring and reporting performance data. This leads to providing information that confuses the user and negatively affects the ability to set priorities and difficulty remembering the previous information, and this embodies the phenomenon of information overload) where the arithmetic mean value was (3.85) with standard deviation (0.90) and coefficient of difference (23.46%). This reflects the degree of disagreement among the sample members regarding this requirement that imposes organizational changes and those related to structures, processes and systems for collecting, monitoring and reporting performance data, which leads to providing information that confuses the users and negatively affects their ability to set priorities and the difficulty of remembering previous information, and this is what embodies the phenomenon of information overload.

B- Test and analyze the significance of the dimensions of the research variables

The first step in determining the relationship between the variables is to determine the basic research variables and the nature of the relationship between them. The first dimension is "the intellectual foundations of integrated reporting", the second is "integrated reporting objectives" and the third dimension is "integrated reporting requirements". To test the research hypotheses based on the fact that each dimension contains and the items on two variables, we will use the T-Test to measure the significance of the arithmetic mean, and then compare it with the hypothetical mean, if the arithmetic mean is greater than the hypothetical mean this means the application of that dimension, that is, there is a correlation and effect, and if it is smaller means that it is not applied, *i.e.*, there is no correlation and influence, we will test the following hypotheses:

1. The main hypothesis of the research included "there is a significant relationship to the integrated reporting as one of the manifestations of information overload", Table (7) shows the results of the test parameter values for the research variables that were assumed.

Arithmetic mean	Standard deviation	Calculated t value	Degree of freedom	Tabular t value	Significance
4.12	0.283	39.465	99	1.984	Significant

The value of (calculated t) reached (39.465) which is greater than its tabular value at the level of significance (0.05) and the degree of freedom (99), which amounted to (1.984), and this means that there are significant differences, and the value of the arithmetic mean reached (4.12) which is greater than the mean, the hypothesis and the amount (3). This means that the significance is in favor of the arithmetic mean, which indicates the proof of the main hypothesis, that is, "there is a statistically significant relationship" to the integrated reporting as one of the manifestations of information overload.

2. The first sub-hypothesis "there is a statistically significant relationship to the intellectual foundations of integrated reporting as one of the manifestations of information overload" Table (8) shows the results of the test coefficient values for the research variables that were assumed.

Arithmetic mean	Standard deviation	Calculated t value	Degree of freedom	Tabular t value	Significance
4.144	0.466	24.533	99	1.984	Significant

The value of (calculated t) reached (24.533), which is greater than its tabular value at the significance level (0.05) and the degree of freedom (99), which is (1.984), and this means that there are significant differences, and the arithmetic mean value reached (4.144), which is greater than the mean the hypothesis and the amount (3) and this means that the moral is in favor of the arithmetic mean, which indicates the proof of the first sub-hypothesis, that is, "there is a statistically significant relationship for the intellectual foundations of integrated reporting as one of the manifestations of information overload."

3. The second sub-hypothesis: "There is a statistically significant relationship to the objectives of integrated reporting as one of the manifestations of information overload." Table (9) shows the results of the test parameter values for the research variables that were assumed.

Arithmetic mean	Standard deviation	Calculated t value	Degree of freedom	Tabular t value	Significance
4.164	0.318	36.569	99	1.984	Significant

The value of (calculated t) reached (36,569) which is greater than its tabular value at the significance level (0.05) and the degree of freedom (99), which is (1.984), and this means that there are significant differences, and the arithmetic mean value reached (4.164), which is greater than the mean the hypothesis of (3) and this means that the significance is in favor of the arithmetic mean, which indicates the proof of the second sub-hypothesis, that is, "there is a statistically significant relationship for the objectives of integrated reporting as one of the manifestations of information overload."

4. The third sub-hypothesis "there is a statistically significant relationship to the requirements of integrated reporting as one of the manifestations of information

overload". Table (10) shows the results of the test parameter values for the research variables that were assumed.

Arithmetic mean	Standard deviation	Calculated t value	Degree of freedom	Tabular t value	Significance
4.052	0.463	22.707	99	1.984	Significant

The value of (calculated t) reached (22.707), which is greater than its tabular value at the significance level (0.05) and the degree of freedom (99), which is (1.984), and this means that there are significant differences, and the arithmetic mean value reached (4.052) which is greater than the mean the hypothesis of (3) and this means that the significance is in favor of the arithmetic mean, which indicates the proof of the third sub-hypothesis, that is, There is a statistically significant relationship to the requirements of integrated reporting as one of the manifestations of information overload."

CONCLUSIONS AND RECOMMENDATIONS

First: The Conclusions

1. The large volume of integrated reports information, which is based on the compilation of financial, environmental, social and governance information, leads to the embodiment of the phenomenon of information overload, as it includes the following:
 - A. Negatively affecting the user's ability to set priorities
 - B. Difficulty remembering previous information by the user and confusing him
 - C. Delayed decision-making and reduced user efficiency when dealing with integrated reports information
2. Among the objectives that integrated reporting seeks to achieve is to provide simplified reports through more reuse of reporting elements, as well as increase the transparency of information accessed from a wide variety of internal and external sources of information, in addition to disclosing information that focuses on creating value for the company in the short, medium and long term. These goals in themselves provide clear evidence of the existence of an information overload because they:
 - A. Cause the repetition and abundance of information contained in the integrated reports
 - B. Causing the accumulation of unimportant and inappropriate information
 - C. Causing an increase in the level of ambiguity, complexity and uncertainty of integrated reporting information
3. Indicating the requirements of integrated reporting, the lack of a single and integrated formulation to create value for the organization, as well as diversity in practice and the absence of detailed requirements for the form and content of integrated reports that require assessment of risks and opportunities along the value chain. In this case, it is important to take into account the financial, social, environmental and governance aspects, these requirements give way significantly, due to the emergence of information overload, because it leads to:
 - A. Providing ambiguous and unverified information
 - B. Providing information that causes distraction to users and exhausting a lot of time to search for information
 - C. Providing information that is complex and abundant and confuses users because there is not enough time to understand and absorb it effectively
4. The results of the statistical analysis and the use of the T-test to measure the significance of the arithmetic mean with the hypothetical mean. They showed that the value of (computed T) to prove the main hypothesis and sub-hypothesis is greater than its tabular value, which indicates the significance of the relationship between the research variables

and the proof of the main hypothesis represented by (the existence of a statistically significant relationship for integrated reporting as one of the manifestations of information overload), as well as proving the sub-hypotheses emanating from the main hypothesis represented by:

- A. The existence of a statistically significant relationship to the intellectual foundations of integrated reporting as one of the manifestations of information overload.
- B. The existence of a statistically significant relationship to the objectives of integrated reporting as one of the manifestations of information overload.
- C. The existence of a statistically significant relationship to the requirements of integrated reporting as one of the manifestations of information overload.

Second: Recommendations

Based on the results of the field study and statistical analysis, it is recommended to reconsider the conceptual and structural structure of integrated reports, represented by financial, environmental, social and governance information, for the purpose of narrowing the areas that represent a convergence in the vision between integrated reporting and information overload. The conceptual and structural structure targeted by reconsidering the following aspects:

1. Re-drafting the intellectual foundations of integrated reporting, the most important of which was mentioned in the first dimension of the questionnaire adopted in the field study, in order to reduce the negative effects on the ability and efficiency of the user in dealing with integrated reports and help him overcome confusion and delay in decision-making and other difficulties related to remembering previous information
2. The objectives of the integrated reporting itself, which were included within the second dimension of the field study questionnaire, should be reconsidered in order to reduce the repetition and abundance of information contained in the integrated reports and to avoid the accumulation of unimportant and inappropriate information that contributes to increasing the level of ambiguity, complexity and uncertainty.
3. It is required reconsider the requirements of integrated reporting, the most important of which was mentioned in the third dimension of the field study questionnaire, and to reduce the ceiling of detailed requirements so that it is possible to prepare integrated reports that are less detailed, and to try to find a clear and unified formulation of the form and content of integrated reports to avoid providing information that is characterized by ambiguity, complexity, abundance and requires a lot time to understand and assimilate it.

REFERENCES

- ACCA. (2017). Insights into integrated reporting—Challenges and best practice responses.
- Adegboyegun, A.E., Alade, M.E., Ben-Caleb, E., Ademola, A.O., Eluyela, D.F., & Oladipo, O.A. (2020). Integrated reporting and corporate performance in Nigeria: Evidence from the banking industry. *Cogent Business & Management*, 7(1), 1736866. doi:10.1080/23311975.2020.1736866
- Albetairi, H.T.A., Kukreja, G., & Hamdan, A. (2018). Integrated reporting and financial performance: Empirical evidences from Bahraini listed insurance companies. *Accounting and Finance Research*, 7(3), 102-110.
- Algrari, A.Y., & Ahmed, M.R.M. (2019). The impact of accounting information systems' quality on accounting information quality. University of Sulaimani.
- Allen, D., & Wilson, T.D. (2003). Information overload: Context and causes. *The New Review of Information Behaviour Research*, 4(1), 31-44.
- AL abdullah, R., & As' ad, M.A. (2008). The effect of accounting information overload on the quality of managerial decisions (A Field Study). *The Arab Journal of Accounting*, 11(01).
- Bhasin, M.L. (2017). Integrated reporting: The future of corporate reporting. *International Journal of Management and Social Sciences Research*, 6(2), 17-31.
- Camodeca, R., & Almici, A. (2017). Implementing integrated reporting: case studies from the Italian listed companies. *Accounting and Finance Research*, 6(2), 121-135.
- de Moura, G.D., Zanchi, M., Mazzioni, S., Rodrigues, F.F., Macêdo, R., & Kruger, S.D. (2017). Determinants of accounting information quality in large publicly-held companies listed on BM&FBOVESPA. *Journal of Education and Research in Accounting*, 11(3).
- Drake, M.S., Hales, J., & Rees, L. (2019). Disclosure overload? A professional user perspective on the usefulness of general purpose financial statements. *Contemporary Accounting Research*, 36(4), 1935-1965.
- Eppler, M.J., & Mengis, J. (2003). A framework for information overload research in organizations. Università della Svizzera italiana.
- Framework, I. (2013). The International "IR" Integrated Reporting Framework, The International Integrated Reporting Council (IIRC). In.

- Howard, G.R., Klopper, R., & Lubbe, S. (2011). The impact of information quality on information research. *International Special Edition*, 4(2011), 288-305.
- IIRC. (2018). International Integrated Reporting Council "BUILDING MOMENTUM".
- Ito, K., & Iijima, M. (2018). The paradigm shift from financial reporting to integrated reporting. *Journal of Human Resource Management*, 6(3), 85-94.
- Kashada, A., Isnoun, A., & Aldali, N. (2020). Effect of information overload on decision's quality, efficiency and time. *International Journal of Latest Engineering Research and Applications*, 5(1), 53-58.
- Morros, J. (2016). The integrated reporting: A presentation of the current state of art and aspects of integrated reporting that need further development. *Intangible Capital*, 12(1), 336-356.
- Mostak, K., & Hoq, G. (2014). Information overload: Consequences and remedies: A study. *Philosophy and Progress*, 55(1/2), 49-68.
- Obaidat, A.N. (2007). Accounting information qualitative characteristics gap: Evidence from Jordan. *International Management Review*, 3(2).
- Pete, S. (2013). First step towards reduction of disclosure overload.
- Pricewaterhouse Coopers(PWC). (2012). Integrated reporting the future of corporate reporting.
- Rachfall, T., Trallo, D.F., Williamson, E., & Temple, B. (2015). The impact of information overload on individual stress feelings of management accountants.
- Roetzel, P.G. (2018). Information overload in the information age: A review of the literature from business administration, business psychology, and related disciplines with a bibliometric approach and framework development. *Business research*, 12(2), 479-522.
- Romney, M., & Steinbart, P. (2018). *Accounting information systems, (Fourteenth Edition)*. Pearson, USA.
- Rosa, D., & Purfini, A. (2019). Analysis effect quality of accounting information systems to support company performance. *Paper presented at the IOP Conference Series: Materials Science and Engineering*.
- Saha, A., Morris, R.D., & Kang, H. (2019). Disclosure overload? An empirical analysis of international financial reporting standards disclosure requirements. *Abacus*, 55(1), 205-236.
- Sari, N.Z.M., Se, M., & Purwanegara, H. (2016). The effect of quality accounting information system in Indonesian government (BUMD at Bandung area). *Research Journal of Finance and Accounting*, 7(2).
- Singha, J., Sadiqb, M., & Kaurc, K. (2019). Integrated reporting: Challenges, benefits and the research agenda. *International Journal of Innovation, Creativity and Change*, 7(8), 1-16.