IJAAF; Vol. 8, No. 1, Winter 2024, Serial 26

Ferdowsi University of Mashhad

Iranian Journal of
Accounting, Auditing & Finance

Quarterly

RESEARCH ARTICLE

The Role of Technocracy Instrumental Rationale in Dialogic Accounting Model with Green Accounting Consequences

Ensie Hosseinpooran, Hasan Valiyan*, Mohammadreza Abdoli

Department of Accounting, Shahrood Branch, Islamic Azad University, Shahrood, Iran

How to cite this article:
Hosseinpooran, E., Valiyan, H., & Abdoli, M. (2024). Dialogic Accounting Model and Green Accounting Consequences: Empirical Evidence from Iran. Iranian Journal of Accounting, Auditing and Finance, 8(1), 17-37. doi: 10.22067/ijaaf.2024.42793.1137
https://ijaaf.um.ac.ir/article_42793.html

ARTICLE INFO

Article History
Received: 2023-08-20
Accepted: 2023-11-16
Published online: 2024-01-01

Keywords:
Dialogic Accounting, Green Accounting Consequence, Technocracy Instrumental Rational

Abstract

Changes in any field of science will lead to greater dynamics of the functions of that field. Accounting is one of the areas based on social processes. Accounting, as one of the areas based on social processes, is no exception to these changes. To enhance interactivity with stakeholder needs, one can expect to achieve a coherent and interactive understanding of the elements of the accounting profession with social dimensions through such changes. Dialogic accounting, as changes resulting from perceptual and social contexts, can have pervasive values, such as the positive consequences of green accounting socially and competitively. This study examines the role of technocracy instrumental rationale in the dialogic accounting model with green accounting consequences. In this research, which is considered methodologically in terms of the nature of the problem and the purpose, the data collection method was survey correlation, and the research tool was a questionnaire. In this study, 195 financial managers and heads of accounting of capital market companies participated. Partial Least Squares Analysis (PLS) was also used to fit the model. The results showed that dialogic accounting impacts the green accounting implications of capital market companies. The results showed that dialogic accounting has a positive and significant effect on the green accounting consequences of capital market companies. It was also found that using technocratic instrumental rationality intensifies the positive impact of dialogic accounting on the consequences of green accounting. The results show the development of the dialogic accounting model as a basis of the system in the social context, and by transferring the level of capital market expectations as the input of the system and combining it with accounting knowledge as a system process occurs, it can lead to green accounting consequences as a system output. On the other hand, the result shows that the technocracy instrumental rationale by changing the attitude in corporate decision-making can cause dialogic accounting is one of the capacities of technical and technological knowledge, which is the most prominent layer of rationality in modern thought on the base strengthen dialogic accounting for green implications for financial reporting, based on ethical norms based on ethics.

https://doi.org/10.22067/ijaaf.2024.42793.1137

NUMBER OF REFERENCES
48

NUMBER OF FIGURES
7

NUMBER OF TABLES
12

Homepage: https://ijaaf.um.ac.ir
E-Issn: 2717-4131
P-Issn: 2588-6142

*Corresponding Author: Hasan Valiyan
Email: Hasan.valiyan@yahoo.com
Tel: 09122735989
ORCID: 0000-0001-5852-4198

1. Introduction

There has been an increased appreciation of accounting's discursive significance in recent years. Accountants do not merely "convey" information; their representations play an active role in (re)constructing social worlds (Nicholls, 2018). Accounting is one of the social practices through which individual and group subjectivities are shaped and a means by which power is exercised (Uvaneswaran et al., 2019). An interest in reconfiguring calculative technologies has accompanied an appreciation of the power of accounting in shaping social realities. There is widespread recognition in and outside the accounting discipline of the need for "new accountings" that facilitate more participatory decision-making and accountability (Hussain et al., 2020). Much concerns dissatisfaction with technocratic decision-making tools rooted in positivism and neo-classical economics, as exemplified by debates surrounding cost-benefit analysis and similar techniques. Philosophically, appeals for new methods are embedded in the democratic rather than capitalist traditions of Western societies (Brown, 2009). This is particularly evident in the sustainable development and social and environmental accounting literature, with calls for approaches that recognize the plurality inherent in liberal democracies and promote more critically reflective dialogue (Pärl et al., 2022). Over the years, various social accounting tools have been proposed as a means of promoting democratic interaction (see, e.g., Medawar, 1976 on social audits; Morgan, 1988 on redesigning accounting to facilitate "better conversations"; Dey, 2003 and Gray, 1997 on silent/shadow accounts; Boyce, 2000 on creating environmental and social visibilities; Gray and Bebbington, 2001 reporting on a variety of environmental accounting initiatives). Most recently, these have included attempts to promote explicitly dialogic accounting technologies and forms of engagement. The social accounting community is learning that "doing" is not enough, no matter how well-intentioned. Social and environmental accounting has been under-theorized and insufficiently politicized, hampered practice (Gunarathne et al., 2023). In particular, it is argued that the field has been inadequately theorized to cope with difference and diversity despite its claimed pluralist underpinnings. Technocracy results from a positivist attitude that depends on human society and management. This approach oversees economic growth, planning, project evaluation, and technology and emphasizes a rational and technocratic approach to problem-solving. Rationality here does not necessarily mean rationality; rather, it refers only to rationality based on the originality of tools and technology, which is rooted in instrumental rationality (Fremeaux et al., 2020). Instrumental rationality is, of course, a necessity for every society and civilization. Still, it becomes original when it is formed based on a series of tools and methods aimed at developing and advancing goals such as ethics, social and cultural responsibilities, etc., and causes society to move in the direction of the set goals (Van der Meer-Kooistra and Vosselman, 2012). Such an attitude, while taking a neutral and purely scientific approach to problems and their solutions, is based on the values that epistemological teachings draw on liberal/positivist approaches and moral assumptions based on social responsibilities such as dialogic accounting and the development of greenery is focused on society (Budding and Van Helden, 2022).

Dialogic accounting is considered one of the dimensions of accounting development; by combining behavioral and ethical perceptions and scientism, it seeks to develop practical green accounting implications for preventing environmental degradation (Millar and Searcy, 2020). Accounting dialogic expresses the critical nature of accounting knowledge through the use of similarities and themes related to the facts of accounting that affect it (Sami et al., 2021). Because accounting has today become a language for interaction and dialogue in a competitive market on the one hand, and the development of ethical behaviors such as environmental protection on the other, and its development in the form of dialogic can be reflected. More thought-provoking information to help inform users. An essential part of the impact of capital market accounting is that, due to the

conflict of interest between stakeholders, dialogic accounting can help balance the market and facts based on decision-making. In other words, developing accounting themes is a superficial dialogic representation or knowledge-based identity of specialized interactions between companies and external stakeholders. In the form of voluntary reports, such as the disclosure of corporate environmental performance information, companies help to create synergies in market decisions. Although this concept can have a semantic scope, in the form of a professional basis, it creates reciprocal language structures between the company and external stakeholders, which can have positive consequences for both the economy and society. Researchers such as Melissa Walters-York (1996), Mcgoun et al. (2007) and Amernic and Craig (2009) proposed different but similar patterns of information equality and symmetry for dialogic accounting. The common denominator of all these patterns is the focus on a process of accounting practices such as financial reporting, adjustment of financial statements, etc. For example, Corrigan's (2018) definition of dialogic accounting interprets it as knowledge based on linguistics in areas such as sociology, philosophy, and psychology, including management and economics; on the other hand, Bordt (2018) defines dialogic accounting as a critical linguistics that, based on the thematic information and tone hidden in the accounting procedures of a financial report, helps analysts to use the techniques and arrangements in investing knowledge to give an outline of corporate performance convert an argument able language than what is behind the words; make the hidden sentences and text of the financial reporting language an understandable decision to generate more revenue for the stakeholders. Therefore, as it is clear, dialogic accounting is a concept based on developing a common language with institutionalized values in the background of financial reporting, which can help increase the effectiveness of accounting in reflecting information facts. Therefore, conducting this research can be considered important from two perspectives.

First, because this research contains a new concept in the accounting field, it can develop theoretical and research literature. This is a basis that, due to the lack of applied research related to dialogic accounting, can contribute to the development of theoretical literature in terms of its importance for increasing the quality of reporting language and green accounting knowledge. A review of previous research such as Brown (2009) examining "technologies related to Dialogic accounting in the development of sustainability"; Godowski et al. (2020) examine "Future Perspectives on dialogic accounting in Assisting Public Accounting"; Bellucci et al. (2019) to examine the "role of dialogic accounting in the development of stakeholder participation"; Grossi et al. (2021) who studied "dialogic accounting on IT platforms" and Dillard and Vinnari (2019) who examined the "dialogic accounting framework in environmental accounting information systems". It confirms the claim that although issues similar to those of dialogic accounting have been explored, it can enhance the quality of the environment, both in terms of its structure of analysis and in terms of its semantics, while being innovative in its relationship to green accounting can help to increase the quality of information between stakeholders. This study develops a framework connecting interested stakeholders to accounting systems development. As it turned out, previous studies have not taken action to examine the role of technocracy in dialogic accounting and evaluate the consequences of green accounting. This research can cover the theoretical and practical gap in this part of accounting research and contribute to the link between knowledge and information systems in accounting so that the consequences of green accounting are more effective.

Second, the results of this study can help higher institutions in the Iranian accounting profession, such as scientific associations and accounting professions in the private sector and committees to develop accounting standards in the public sector to gain a more coherent understanding of the importance of dialogic accounting and its role in green accounting development, and accordingly help to normalize and develop a culture of interaction and discourse in accounting. The effectiveness of

dialogic accounting in terms of application, as well as to other capital markets stakeholders such as investors, shareholders, and market analysts, also helps to make more controlled risk decisions than the environmental practices disclosed by the existence of dialogic accounting functions. Therefore, this research seeks to develop realistic and practical functions in the capital market at the mentioned theoretical and experimental support level by referring to the research concept development research to fill the gap in standards and structural requirements related to the research topic. Dialogic accounting and its role in green accounting consist of perceptual themes that may not necessarily fit within the tangible framework of the information disclosed in financial reporting and require a comprehensive understanding of linguistic critique in the accounting profession. Therefore, in the first step, this study aims to present the dimensions of dialogic accounting based on measurable dimensions through meta-synthesis. In the second step, the paper seeks to determine its impact on green accounting. It also examines the role of technocratic instrumental rationality in the impact of dialogic accounting on the consequences of green accounting.

2. Literature Review

The stream of realism (positivism) as a philosophical school, as opposed to the school of subjectivism (criticisms) in the humanities, focuses on facts objectively and emphasizes quantities versus qualities independently of mental stimuli. The foundation of classical accounting knowledge is based on the approaches of the school of realism (positivism) due to the nature of this profession, and the founders of this school described the general concepts as a rearrangement of measurable facts and largely denied the existence of quality and meaning in this field. However, the school of subjectivism (criticisms) believes that the humanities are more concerned with human perceptions of what is happening. Even accounting knowledge is considered to require interactive functions based on human cognition, but the early foundations of this knowledge emphasized facts for decision-making. The confrontation of the approaches of these two schools of demand, like other humanities fields, gradually created the grounds for changing the accounting philosophy. Melissa Walters-York (1996), as a pioneer in changing the mere quantitative approaches to subjective approaches in accounting knowledge, provided the existence of information demand and supply by the accounting profession as a basis for moving towards modern accounting knowledge. Describing "dialogic accounting", this researcher tried to build a new paradigm of accounting language in financial reporting by moving away from merely quantitative functions in accounting to interactive functions and strengthening the mechanisms of absorbing and sharing external accounting knowledge in this field. The consequences of this change over time and with the development of the knowledge of researchers such as Rutherford (2002), Jones and Willis (2003), Malthus and Fowler (2009), Yen et al. (2017); and Aly et al. (2018) to create new scientific trends such as accounting narrative; financial reporting language; perception of accounting and the tone of financial reporting led. Dialogic accounting encompasses a set of new approaches to accounting knowledge that aim to increase interaction in developing accounting knowledge. Littlejohn and Foss (2011) introduced the accounting metaphor as a system-based concept and presented this field of accounting knowledge cycle as a systematic model.

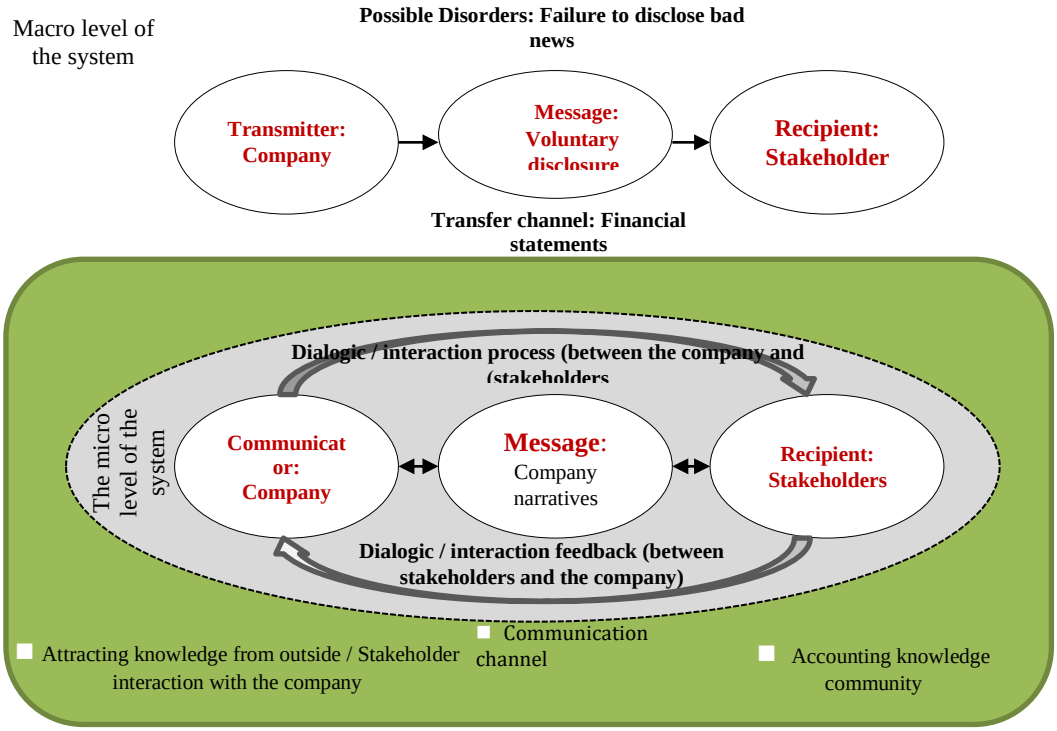

Figure 1. Dialogic accounting system model

In this context, dialogic accounting is based on a system cycle at both macro and micro levels, ranging from the company's functions in transmitting information to absorbing knowledge from stakeholders. At the macro level, corporate engagement functions shape dynamic communications into a system that transmits the company message through accounting communication channels such as financial statements and other accompanying reports to recipients, i.e., external stakeholders (Merkl-Davies and Brennan, 2017). Like any communication process, disruption of message transmission in this system, which is based on the structural approach of communication, i.e. managers, can reduce communication effectiveness. At the micro level, however, the process takes on a more dynamic form, as the context of discourse as a process and the flow of information through feedback constantly evaluate and ultimately modify the system. In other words, the company communicates with external stakeholders. Then, it communicates its realistic narratives based on the quality and quantity of the company's financial operations to them, and the stakeholders return their expectations to the system by receiving information. In these circumstances, the form of communication occurs bilaterally and provides the basis for the knowledge community in accounting that is the result of knowledge absorption; the expectations and information needs of stakeholders are met, and in this case, dialogic accounting as a social norm will strengthen the relationship between the company and stakeholders (Grossi et al., 2021). Craig (1999), on the other hand, sought to develop interactive accounting knowledge strategies by presenting a matrix of strategic reference points.

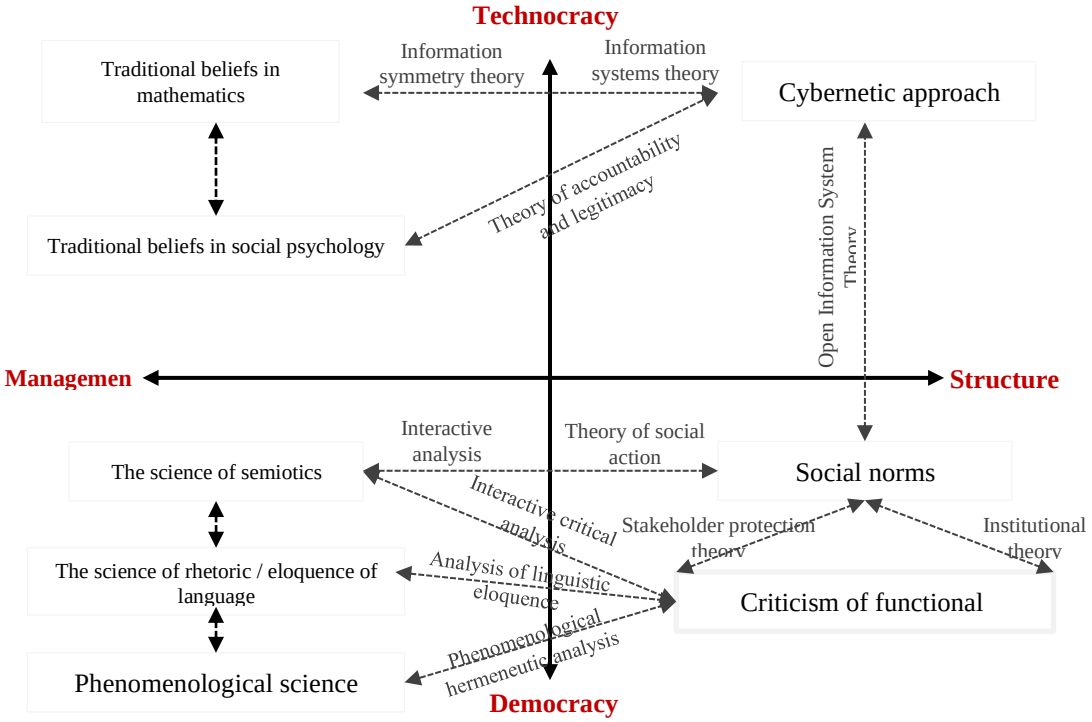

Figure 2. Strategic reference framework for dialogic accounting

Like any strategic reference matrix, this matrix is based on two vertical/horizontal axes; the four dimensions of management and structure are on the horizontal axis, and technocracy and democracy are on the vertical axis. In general, the two left quadrants of this matrix focus on management approaches, and the right two quarters focus on the structural functions of companies in accounting functions. Management is the sum of decision-making processes based on traditional beliefs instead of phenomenological and perceptual beliefs. It interprets the structure of the set of information systems processes against social norms. Technocracy also interprets the originality of specialized and analytical techniques in accounting, and democracy refers to a worldview beyond technology and reliance on the development of concepts and equality (Craig, 2008). Therefore, according to this matrix, the management attitude in relying on quantitative techniques and areas increases the technocracy in the role of accounting, which, by applying mathematics to accounting, considers quantitative analysis to legitimize accounting and pave the way for cybernetic development in accounting. In contrast, the management approach in phenomenology science realizes the fields of dialectical development in accounting. It promotes social understanding of accounting knowledge by developing semiotic techniques and linguistic rhetoric. It also provides a democracy-based structure for the development of social norms through a water-critique approach, according to which the protection of stakeholder interests makes institutional structures more dynamic. According to this framework, dialogic accounting can be considered as a level of need for perception to align the interaction and dialogue between the company and environmental stakeholders, which will lead to creating a common language based on the quality of the information environment (Webber, 2006). Relying on the presented theoretical foundations, in line with the methodological nature of the research, the questions of the qualitative part and then the research hypothesis are raised:

2.1 Qualitative research question

Due to the inconsistency and reliability of dialogic accounting tools, in this study, first, the meta-synthesis dimensions of dialogic accounting are determined and based on Delphi analysis, the theoretical adequacy limit is determined. Therefore, the questions in this section are:
What are the dimensions of dialogic accounting?

2.2 Research hypothesis

After determining the dimensions of dialogic accounting and determining the level of reliability of this variable by using the Shahri et al. (2021) questionnaire, the research hypothesis is presented in the following order:

H1: Dialogic accounting impacts the green accounting implications of capital market companies.

2.3 Research background

Gunarathne et al. (2023) use a web-based survey designed and administered to publicly listed companies and members of three industry chambers in Sri Lanka. This study finds that implementing environmental management accounting (EMA) differs significantly among organizations at varying EMM stages. Further, it is observed that organizations at higher stages of EMM use significantly greater domain-based EMA tools and EMA for functional purposes. Therefore, the results show that when organizations progress from reactive to proactive environmental strategies, the EMA evolves to encapsulate and diversify to deal with more sophisticated environmental management activities. Brown and Dillard (2021), by using Jasanoff's four proposed focal points for developing new analytical instruments for accounting for non-financial matters and promoting participatory governance framing, vulnerability, distribution and learning, argued to be useful in conceptualizing possible critical dialogic accounting and accountability (CDAA) technologies. These aspects are ignored or downplayed in conventional approaches to accounting for non-financial matters, limiting accounting's ability to promote more socially just and ecologically sustainable societies. Manetti et al. (2021) aimed to identify the accounting dimensions of discourse through meta-synthesis. The study examined more than 186 sources from international databases between 2004 and 2019. The development of a dialogic accounting framework accompanied the results of the study and showed that the development of theoretical literature in social and environmental contexts could lead to raising the level of culture of voluntary disclosure of corporate information and provide a basis for environmental protection as a competitive basis. Godowski et al. (2020) showed that the focus on dialogic accounting functions, especially in the public sector, includes cultural and social norms requiring academic awareness. This study addresses some of the values of the accounting profession for which there is not necessarily a specific standard. It requires conceptual understanding to recognize the links between social issues and corporate financial reporting to enhance stakeholder interaction capabilities. According to the research results, the tool of this section is the use of dialogue-oriented methods in focus groups, which will create the ground for more perceptual coherence as a consequence of this theoretical approach. Shahri et al. (2021) included two levels of CEO and deputy CEO and less than 100 participants, which is one of the census criteria used to select research participants. The results showed that, according to the Anthropocene theory paradigm, changing companies' environmental behaviours increases the strategic consequences of green accounting. The results of this study show that to realize the Anthropocene paradigm at the performance level of companies, change the attitude, behavior and practical ethics of individuals as helmsmen of the company, to increase effective decisions to reduce environmental pollution, introduce a structure of the underlying causes of the effectiveness of environmental accounting mechanisms with the aim of sustainable development, in which the two dimensions of micro-mechanisms and macro mechanisms were analyzed. Three sub-dimensions were determined in the

micro mechanism dimension: value accounting, development, and financial accounting. In the macro mechanism dimension, two dimensions of legal mechanism and cultural mechanism were explained. The results of this research will help improve the quality of sustainable development of companies by using effective environmental accounting and lead to the competitive advantage of companies and greater success in competitive areas.

A review of the empirical background of the research shows that the study of the effect of dialogic accounting on the consequences of green accounting has not been done by previous research, and this research can help the development of theoretical literature in this field.

3. Methodology

The required data were collected based on a survey (Dianati Deilami, 2014). Accordingly, a questionnaire was used to collect research data because, following previous research, it is an effective method of collecting data from a large sample (Mael and Ashforth, 1992; Chen et al., 2009). Also, to collect the theoretical foundations, the library method was used and the theoretical foundations of similar research were studied. The subjects' questioning period is 6 months, from August 2020 to February 2020.

3.1 Research instrument

The tool for collecting research data, according to the nature of the operational measurement of research variables, in the qualitative phase to identify the accounting dimensions of discourse was the critical evaluation list. In the quantitative phase of the research, it was a questionnaire. In collecting research data in the qualitative section, based on the nature of content screening, attempts were made first to identify relevant research and then measurable dimensions of dialogic accounting. Then, based on the Delphi analysis process, during the development of Likert 7-item checklists, an attempt was made to determine the reliability of dialogic accounting subscales based on the mean and agreement coefficient. Then, in the quantitative phase, a questionnaire was distributed among the participants as a data collection tool in the quantitative section to test the research hypothesis. The results can be theoretically argued based on partial least squares (PLS) analysis. The questions of all the questionnaires in the quantitative methodology section were arranged through a 5 Likert scale from strongly agree to strongly disagree. All questionnaires were again provided to experts in terms of validity, and the concept of questions and alignment with the research objectives were reviewed and modified in several stages so that all questions were approved and distributed among the community. The purpose of the research was.

3.2 The statistical population

The statistical population of this study, in the qualitative section, were 13 accounting experts at the university level who had a good understanding of dialogic accounting in terms of knowledge acquisition and conducting similar scientific research. A distinctive feature of all these participants is having a PhD in accounting, experience teaching accounting / financial theories and conducting at least 5 studies in accounting science during the past years. The adoption of this filter helped to select people appropriate to the purpose of the research.

The statistical population of this research is the quantitative section, financial managers and heads of accounting units of Tehran Stock Exchange companies. Since there are no exact statistics about the statistical population, to determine the sample size, Cochran's Alpha was used assuming the statistical population is unknown and as follows:

$$n = \frac{Z_{\alpha/2}{}^{2}.\sigma^{2}}{e^{2}} = \frac{1/96\,^{2} * 0/683^{2}}{0/1\,^{2}} = 179$$

n: indicates the sample size; $z_{\alpha/2}$: standard normal value is 1.96; σ^2: indicates the variance of the population, which, because it is not clear, was obtained using a pre-test and a standard deviation of a sample of 30; e: The accuracy of the research, which is usually considered equal to 0.1. Due to the above relationship, a sample size of 179 participants was obtained to increase the validity of the research, 250 questionnaires were randomly distributed among the participants, and 195 questionnaires were received and used as a basis for statistical analysis.

3.3 Research variables

3.3.1 Dependent variable

A researcher-made questionnaire was used to measure the variables of green accounting consequences. According to the analytical process based on Delphi analysis and meta-synthesis, this questionnaire includes three subscales of competitive functions, value functions and legal functions of accounting are green, which are measured based on 15 questions in a 5-point Likert comparison. Considering that experts reviewed the concepts of the questionnaire based on the CVR validity index, it was confirmed. This questionnaire asks questions such as: Does increasing tax incentives help strengthen the application of green accounting in the capital market? Or to what extent do you consider the application of green accounting as a basis for the sustainability of social responsibility values at the market level? Is coordination between the organization's bylaws and environmental regulators a stimulus to strengthen companies' commitment to green accounting? The content of the questions is based on strategic consequences in green accounting, which strengthens competitive criteria, value and legal or regulations among capital market companies. The reliability of this questionnaire was estimated based on Cronbach's alpha coefficient of 0.86, which was approved since it was more than 0.7.

3.3.2 Moderating variable

The moderating variable of research is technocracy instrumental rationale. This study used Simon's (1997) questionnaire, which includes 12 questions based on the 5-point Likert scale. Instrumental rationality in technocracy defines reason as a means to achieve a specific goal, the output of which is behavioral optimization to achieve specific goals on an all-encompassing and pluralistic basis. This questionnaire includes 3 dimensions of comprehensive technical knowledge: Inclusive values and inclusive evaluation, whose validity has been confirmed by experts. This questionnaire asks questions such as whether the tenure of managers with specialized knowledge can help create inclusive values. Is believing in the creation of inclusive values a responsible process in the field of social accounting development? The content of the questions is based on the extent of knowledge. Values and practical evaluation of managers as decision-makers at the top of companies can help develop the field of social accounting and provide a context for the emergence of expected behaviors towards society. The reliability of this questionnaire was also confirmed based on Cronbach's alpha coefficient and was estimated by Bolan (1999) to be about 0.84. It was evaluated again due to adjusting the content of the questions and was calculated to be 0.88.

3.3.3 Independent variable

Because there is no tool for measuring this study's exogenous variable (independent), i.e., the accounting model of discourse at the capital market level, meta-combination analysis is used to compile a questionnaire. This analysis provides the basis for formulating effective components aligned with capital market dialogic accounting. For this purpose, relying on the process of meta-analysis and Delphi analysis, this study seeks to develop a tool to measure this variable at the capital market level. Therefore, to focus on similar studies worldwide, only studies conducted from 2018 to

2021 to the research dependent variable were selected as a sample. It should be noted that the 13 initial types of research should be analyzed in the third step in terms of the critical appraisal process with the participation of research experts. This process includes the following 10 criteria, which are examined based on a minimum score of (1) and a maximum of (5). The total score based on 10 criteria can be 50, and if the research scores 30 or more, it enters the fourth step. Based on a better understanding of the analysis process in this step, with the participation of research experts, 13 initial approved types of research will be analyzed for points based on critical evaluation analysis. In this section, after analyzing the basics of the approved components of the above research, the themes for measuring the accounting components of discourse are determined separately.

Table 1. The process of determining the themes of dialogic accounting assessment

		7-point rating scale								
		7	6	5	4	3	2	1		
Dialogic Accounting Components	Development of voluntary								Reduce the proprietary cost of disclosing information. Reduce the cost of litigation risk. Reduce the cost of credit risk. Reduce agency costs Increasing the information disclosure threshold Reduce the cost of default risk.	Dialogic Accounting Assessment Statements
	Development of future accounting								Development of the knowledge field of accounting science based on philosophical theories Establishing the general theory of society to promote theoretical and practical knowledge Strengthen scripting functions to explain accounting perspectives. The dialectical accounting paradigm Strengthening the positive approach of accounting knowledge based on reality	
	Development of accounting cybernetics								Establishing an active information network between the company and stakeholders Increasing the level of financial knowledge through a variety of strategic alternatives Upgrading Financial Decision Support Systems (DSS) Upgrading Financial Management Information Systems (FMIS) Upgrading Strategic Financial Information Systems (FIS) Upgrading Financial Information Operating Systems (FTPS)	

In the next step, Delphi analysis based on two criteria of mean and coefficient of agreement is used to determine the consensus of experts for the appropriateness of research propositions with the main components. Therefore, to perform this section, according to the scale of 7 evaluation options, according to Table (2), the results of Delphi analysis are presented.

After two rounds of analysis in the Delphi step, the results showed that 5 propositions were removed because they had an agreement coefficient below 0.5 and mean below 5. The two propositions were merged in pairs. Therefore, according to the obtained results, the dialogic accounting questionnaire is presented in the following order:

Table 2. Delphi analysis process to determine the consensus of experts

		The first round of Delphi		The second round of Delphi		Result		
		Mean	Coefficient of agreement	Mean	Coefficient of agreement			
Dialogic Accounting Components	Development of voluntary disclosure	4.000	0.350		*Delete*		Reduce the cost of credit risk	Dialogic Accounting Assessment Statements
		5.200	0.600	5.300	0.650	Confirm	Reduce the proprietary cost of disclosing information.	
		3.000	0.200		*Delete*		Reduce the cost of default risk.	
		5.30	0.650	5.500	0.750	Confirm	Reduce agency costs	
		5.000	0.500	5.100	0.550	Confirm	Increasing the information disclosure threshold	
		5.300	0.650	5.500	0.750	Confirm	Reduce the cost of default risk.	
	Development of future accounting values	4.000	0.350		*Delete*		Development of the epistemological field of accounting science based on philosophical theories	
		6.000	0.800	6.200	0.850	Confirm	Strengthening the positive approach of accounting knowledge based on real nature	
		5.200	0.600	5.300	0.650	Confirm	The dialectical accounting paradigm	
		5.300	0.650	5.500	0.750	Confirm	Strengthen scripting functions to explain accounting perspectives	
		2.000	0.150		*Delete*		Establishing the theory of society to promote theoretical and practical knowledge	
	Development of accounting cybernetics	6.000	0.800	6.200	0.850	Confirm	Establishing an active information network between the company and stakeholders	
		4.800	0.470	5.000	0.500	Merge	Upgrading Financial Management Information Systems (FMIS)	
		5.000	0.500	5.150	0.580		Upgrading Financial Information Operating Systems (FTPS)	
		5.300	0.650	5.500	0.750	Confirm	Upgrading Financial Decision Support Systems (DSS)	
		5.300	0.650	5.500	0.750	Confirm	Upgrading Strategic Financial Information Systems (FIS)	

As can be seen, this questionnaire includes 11 questions and 3 sub-components of voluntary disclosure development, development of future accounting values and cybernetic development of accounting. The questionnaire scoring was based on a five-point Likert scale (strongly agree = 5, agree = 4, have no opinion = 3, disagree = 2 and strongly disagree = 1). Thus, the ratio of the total score of each questionnaire to the total achievable score (55) is considered an indicator of dialogic accounting. Therefore, the research model is presented to determine the dimensions of the research.

4. Findings

In this section, first, the findings of descriptive statistics and then the findings of inferential statistics are presented. Based on the results of Table (6), the descriptive statistics of the tested variables, which include some central indicators and dispersion, should be expressed; the highest mean is related to the competitive impact subscale (4.271), which indicates that the competitive outcome of green accounting will reduce the company's financial costs. At the same time, it will give the company a competitive advantage over other companies, increasing its market share by creating

more trust and confidence in stakeholders. On the other hand, it was found that the highest rate of standard deviation is related to the subscale for the development of future accounting values (1.13).

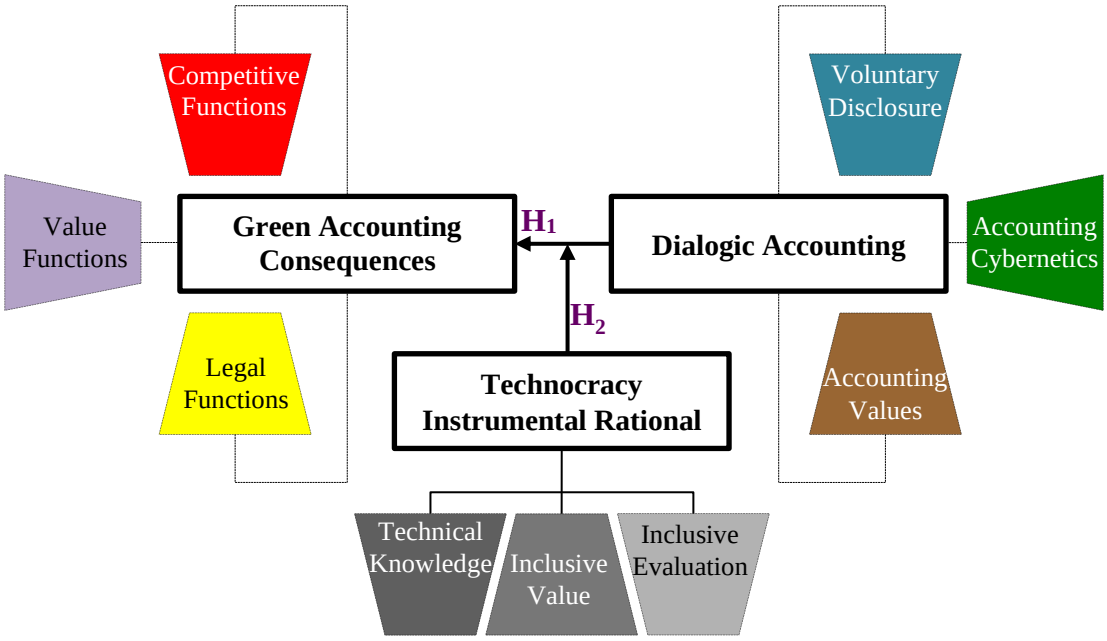

Figure 5. Theoretical model of research

Table 3. Dialogic accounting questionnaire

The main components	Research Questions	5	4	3	2	1
Development of voluntary disclosure	Can the basis of discretionary disclosure as an accounting dimension of dialogic be considered a factor in reducing the proprietary cost of disclosing information? Can dialogic accounting reduce agency costs by developing voluntary disclosure? Can dialogic accounting based on the function of voluntary disclosure provide the basis for increasing the disclosure threshold? Can the basis of discretionary dialogic as an accounting dimension of discourse be considered a factor in reducing the costs of default risk?					
Development of future accounting values	Does dialogic accounting reinforce the positive approach of accounting knowledge based on real nature? Can dialogic accounting be the basis for developing the dialectical accounting paradigm? Can dialogic accounting develop scripting functions to explain accounting perspectives?					
Development of accounting cybernetics	Does dialogic accounting provide the basis for an active information network between the company and stakeholders? Does dialogic accounting improve financial management operational information systems through its systematic approach? Does dialogic accounting promote financial decision support systems (DSS) through its systemic approach? Does dialogic accounting promote strategic financial information systems (FEIS) through its systematic approach?					

This suggests that participants in research on the Likert spectrum have different approaches to

changing the level of future accounting values. In other words, the form of dialogic accounting failed to create a coherent perception in the participants' minds, and this was the basis for the dispersion of the response to the Likert spectrum. Regarding the basis of values, they are perceptually diverse and different in individuals' beliefs, which can justify the standard deviation result.

Table 4. Descriptive statistics related to research variables

Variable	Subscales	Variable symbol	Mean	Mean	Minimum	Maximum	Standard deviation
Dialogic accounting	Development of optional disclosure	Voluntary Disclosure	4.053	4.100	2.250	5.000	0.770
	Development of accounting cybernetics	Cybernetic	3.726	4.000	2.250	5.000	1.030
Implications of green accounting	Development of accounting values	Values	4.112	4.500	2.500	5.000	1.130
	Competitive implications	CC	4.271	4.415	3.200	5.000	0.570
	Value implications	CV	4.011	4.000	2.800	5.000	0.800
	Legal implications	CL	4.119	4.300	2.600	5.000	0.870
Technocracy instrumental rational	Technical Knowledge	Knowledge	4.006	4.211	2.250	5.000	0.770
	Inclusive Value	Value	3.925	4.375	2.250	5.000	1.030
	Inclusive Evaluation	Evaluation	4.156	4.500	2.500	5.000	0.830

After expressing the descriptive statistics in this section, the fitting of the measurement models is presented in the first step. Three reliability criteria, convergent validity and divergent validity, are used in fitting measurement models. In order to evaluate the reliability of the research measurement model, factor load coefficients, Cronbach's alpha coefficients and combined reliability are used.

Table 5. Factor load coefficients

Factor	Indicator	Factor load	Factor	Indicator	Factor load
0.871	Cybernetic		0.682	CC	
0.715	Values	Dialogic Accounting	0.833	CL	Green Accounting Consequences
0.701	Voluntary Disclosure		0.864	CV	
0.879	Cybernetic1		0.751	CC1	
0.862	Cybernetic2	Cybernetic	0.717	CC2	
0.856	Cybernetic3		0.758	CC3	CC
0.878	Cybernetic4		0.794	CC4	
0.713	Values1		0.809	CC5	
0.936	Values2	Values	0.650	CL1	
0.886	Values3		0.827	CL2	
0.789	VoluntaryDisclosure1		0.685	CL3	CL
0.709	VoluntaryDisclosure2	Voluntary Disclosure	0.850	CL4	
0.700	VoluntaryDisclosure3		0.818	CL5	
0.657	VoluntaryDisclosure4		0.872	CV1	
			0.949	CV2	
			0.868	CV3	CV
			0.881	CV4	
			0.881	CV5	

The criterion for the suitability of factor load coefficients is 0.4 (Hulland, 1999). According to Table (5), all numbers of factor load coefficients in the questions are greater than 0.4, indicating this criterion's appropriateness. According to the data analysis algorithm in PLS, after measuring the

factor loads of the questions, it is time to calculate and report Cronbach's alpha coefficients and combined reliability; the results are shown in Table (6).

Table 6. Cronbach's alpha standard results and combined reliability

Concealed Variables	Abbreviation	Cronbach's alpha coefficients (Alpha>0.7)	The combined reliability (CR>0.7) coefficient
(Dialogic Accounting)	Voluntary Disclosure	0.807	0.781
	Cybernetic	0.925	0.892
(Green Accounting Consequences)	Values	0.886	0.800
	CC	0.877	0.824
	CV	0.950	0.935
	CL	0.878	0.825

Considering that the appropriate value for Cronbach's alpha and combined reliability is 0.7 and according to the findings of the table above, these criteria have adopted a suitable value for latent variables, so it can be confirmed that the reliability of research measurement models is appropriate. The second criterion for examining the fit of measurement models is convergent validity, which examines the degree of correlation of each construct with its questions (indicators).

Table 7. Convergent validity results of latent research variables

Concealed Variables	Abbreviation	Mean extraction variance (AVE>0.5)
(Dialogic Accounting)	Voluntary Disclosure	0.512
	Cybernetic	0.755
(Green Accounting Consequences)	Values	0.724
	CC	0.587
	CV	0.793
	CL	0.593

Given that the appropriate value for AVE is 0.5 (Fornell and Larker, 1981) and by the findings of Table (7), this criterion adopts an appropriate value for latent variables, thus confirming the appropriateness of convergent validity of the research. Divergent validity is the third criterion for examining the fit of measurement models. The acceptable divergence validity of a model indicates that one structure interacts more with its characteristics than other structures. Divergent validity is acceptable when the AVE for each construct is greater than the common variance between that structure and the other structures in the model (Fornell and Larker, 1981). According to Table (8), the root value of the mean of the common values of the hidden variables in the present study, which are located in the cells located in the main diameter of the matrix, is greater than the correlation value between those located in the lower and right cells of the main diameter. This means that each structure in the research model interacts more with its own characteristics than other structures. This shows the appropriate divergent validity and proper fit of the research measurement models.

Table 8. Fornell and Larker matrices for divergent validity

	Voluntary Disclosure	Cybernetic	Values	CC	CV	CL
Voluntary Disclosure	0.715					
Cybernetic	0.477	0.869				
Values	0.237	0.428	0.851			
CC	0.251	0.516	0.507	0.766		
CV	0.891	0.445	0.367	0.404		
CL	0.415	0.379	0.428	0.312	0.627	0.770

According to the results of reliability, convergent validity and divergent validity, it is observed

that the measurement models of the structural equation model of the research have the ability to measure the hidden variables of the research optimally. Therefore, the fit of the structural model of the research is examined. After measuring the validity and reliability of the measurement model, the structural model was evaluated through the relationships between latent variables. The present study used two coefficient of determination (R2) and predictive power coefficient (Q2) criteria. R^2 is a criterion that indicates the effect of an exogenous variable on an endogenous variable. According to the table below, the value of R^2 has been calculated for the endogenous structures of the research, which can confirm the suitability of the structural model. In addition, a criterion called Q^2 was used to evaluate the model's predictive power. According to the results of this criterion in Table (9), it can be concluded that the model has strong predictive power.

Table 9. The values of the coefficient of determination (R^2) and coefficient of predictive power (Q^2)

	R^2	Q^2
Voluntary Disclosure	0.500	0.247
Cybernetic	0.760	0.564
Values	0.497	0.345
CC	0.464	0.264
CV	0.755	0.592
CL	0.689	0.395

After checking the fit of the measurement models and the structural model, the general model of the structural equations of the research should be checked using the good of fitness (GOF), which has three values of 0.01, 0.25 and 0.36 as weak, medium and strong values for GOF. Has been introduced. This criterion is calculated using the following formula:

$$GOF = \sqrt{\overline{Communalities} \times \overline{R^2}}$$

Where in: $\overline{Communalities}$ The mean of the common values of the hidden variables and $\overline{R^2}$: the mean values of the coefficient of determination of the model's endogenous variables.

Table 10. The communication rate and R^2 of research variables

Concealed Variables	Abbreviation symbols	Communality	R^2
Development of optional disclosure	Voluntary Disclosure	0.378	0.464
Development of accounting cybernetics	Cybernetic	0.390	0.689
Development of accounting values	Values	0.681	0.755
Dialogic Accounting	Dialogic Accounting	0.577	0.760
Competitive Consequences	CC	0.200	--
Value Consequences	CV	0.286	0.486
Legal consequences	CL	0.442	0.497
Accounting Green Consequences	Accounting Green Consequences	0.199	0.500

Table 11. The results of the general model fit

$\overline{Communality}$	$\overline{R2}$	GOF
0.394	0.593	0.483

Given the value obtained for GOF of 0.483, a very good fit of the overall model is confirmed. After examining the fit of the measurement models and the structural model and having a suitable fit of the general model and according to Figures (5) and (6), the test results of the research hypotheses

are examined, and the results are presented in Table (12).

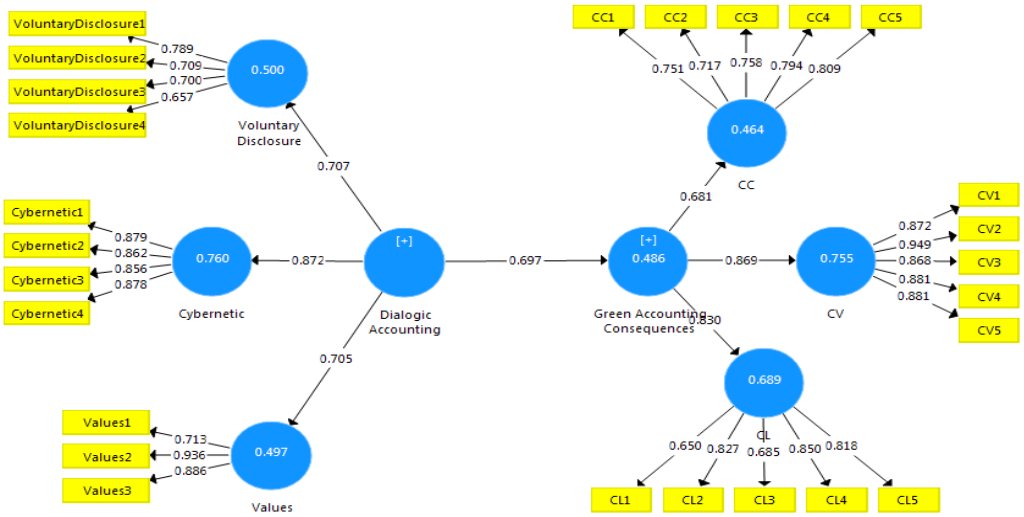

Figure 6. Structural model of research hypothesis with factor load coefficients

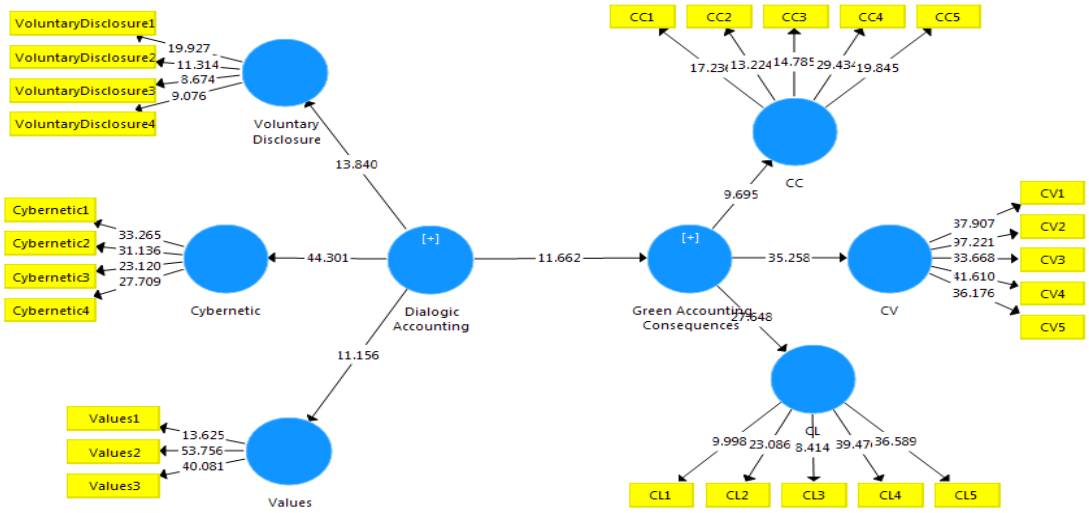

Figure 7. Structural model of research hypothesis with significant coefficients

Table 12. The results of the hypothesis test

Hypothesis	Causal Relationships between Research Variables	Route coefficient (β)	Meaningful (T-Value)	Test Result
The First Research Hypothesis	Dialogic accounting affects the green accounting implications of capital market companies.	0.690	11.660	proving a theory

According to Figures (5) and (6), the standardized coefficient (path coefficient) between the two variables (dialogic accounting and green accounting implications) is positive (0.99), and the t-statistic between these two variables (11.66) is greater than the value is 1.96. Therefore, it can be concluded that dialogic accounting has a positive and significant effect on the green accounting consequences of capital market companies, and therefore, the research hypothesis is accepted. On the other hand, was confirmed the second hypothesis of the research.

5. Conclusion

This study examines the role of technocracy instrumental rationale in dialogic accounting models with green accounting consequences. The results showed that developing the dialogic accounting model as a system basis in social contexts transfers capital market expectations as a system input. Combining it with accounting knowledge as a system process can create green accounting consequences, leading to system output. In other words, dialogic accounting can make the consequences of green accounting more dynamic, thereby reducing the capacity to protect the environment and reduce environmental pollution. Dialogic accounting seeks to develop information transparency through information infrastructures in the form of responsible stakeholder behaviors, develop voluntary disclosure of information, and through it, inclusive implications for accounting values such as the positive implications of green accounting from different perspectives such as competitive; achieve legal and social values. Dialogic accounting stimulates the context through the system cycle for voluntary disclosure and cybernetic development in accounting functions. It develops a level of future accounting ideals as pervasive values for stakeholders. Under these circumstances, green accounting will have more positive consequences in effectiveness as a systemic output in the accounting cycle of discourse. Consequences of green accounting in the form of competitive capital market functions due to cost control; the ability to manage waste under Dialogic accounting can more consistently enable companies to take full advantage of social potential in proportion to their capacity level. On the other hand, by creating a sequence in the accounting dialogic, laws are more tangibly integrated with the realities of the functional context in the market and its social situations and can strengthen and develop effective oversight of corporate operations. Ultimately, these are value implications that, based on the normative form of dialogic accounting, can lead to ethics and adherence to the responsible and voluntary disclosure of companies' environmental practices to stakeholders and gradually create an environmental identity for companies. Therefore, the effectiveness of dialogic accounting at the level of capital market companies can reduce the environmental and process pollution of capital market companies as a positive consequence of green accounting and help to create ethical values in accounting. Results obtained by Manetti et al. (2021) corresponded to Godowski et al. (2020) and Shahri et al. (2021) results.

On the other hand, it was determined technocracy instrumental rationale reinforces the positive effect of dialogic accounting on the green accounting consequences. Using instrumental rationality as the basis of technocracy can change the attitude, behavior and practical ethics of managers as helmsmen of the company to increase the level of social performance of companies, and this will strengthen the green accounting functions in the performance of companies. It should also be noted that if we focus on the instrumental rationality of technocracy, managers' decision-making procedures regarding managerial characteristics, either through standards and requirements or through media education and culture, cause more dynamic interaction between industries and companies by reducing ideas and solutions. Environmental pollution. This change in behavior and ethical decision-making practices created by the instrumental level of rationality of technocracy will be able to develop scenarios for the future impact of capital markets and industries on the environment and lead to actions based on technological capacity to control environmental degradation. At the same time, it helps increase the attractiveness of competitive advantage for companies to stimulate the continuous and sustainable use of green accounting. Results of Manetti et al. (2021) corresponding to Godowski et al. (2020) and Shahri et al. (2021).

Based on the obtained results, it is first suggested that as the development of any field of humanities knowledge, accounting should also be based on recognizing the current and future needs of users of financial statements to develop scenarios to strengthen the metaphorical perspectives of

dialogic accounting by holding scientific conferences with participation. Market and accounting analysts contribute to the greater integration of this paradigm in accounting and provide the basis for raising awareness and institutionalizing the social values of this field in managerial structures and attitudes. Second, the knowledge of accounting itself must distance itself from purely deductive approaches in the philosophy of the accounting profession by focusing on committees and, based on critical theories in the context of social phenomenology, strive to understand expectations of accounting knowledge and enhance effective interaction with stakeholders. In this way, cultivating and strengthening the functional values of accounting through mass media and social media tools can promote the profession in business management, gain more legitimacy for themselves and specialize in accounting knowledge with the help of ethics, preventing distortion or manipulation; earnings to convey more precise information to stakeholders. It is a kind of knowledge-based self-leadership based on reinforced beliefs in the accounting profession in which the themes of discourse can play a significant role.

References

1. Aly, D., El-Halaby, S. and Hussainey, K. (2018). Tone disclosure and financial performance: evidence from Egypt. *Accounting Research Journal*, 31(1), pp. 63-74. https://doi.org/10.1108/ARJ-09-2016-0123
2. Amernic, J. and Craig, R. (2009). Understanding accounting through conceptual metaphor: accounting is an instrument? *Critical Perspectives on Accounting*, 20(8), pp. 875-883. https://doi.org/10.1016/j.cpa.2009.06.004
3. Bellucci, M., Simoni, L., Acuti, D. and Manetti, G. (2019). Stakeholder engagement and dialogic accounting: Empirical evidence in sustainability reporting. *Accounting, Auditing & Accountability Journal*, 32(5), pp. 1467-1499. https://doi.org/10.1108/AAAJ-09-2017-3158
4. Bolan, R.S. (1999). Rationality revisited: An alternative perspective on reason in management and planning, *Journal of Management History*, 5(2), pp. 68-86. https://doi.org/10.1108/13552529910260082
5. Bordt, M. (2018). Discourses in ecosystem accounting: a survey of the expert community. *Ecological Economics*, 144(2), pp. 82-99. https://doi.org/10.1016/j.ecolecon.2017.06.032
6. Boyce, G. (2000). Valuing customers and loyalty: The rhetoric of customer focus versus the reality of alienation and exclusion of (de-valued) customers, *Critical Perspectives on Accounting*, 11(6), pp. 649-689 https://doi.org/10.1006/cpac.2000.0408
7. Boyce, M.C. and Arruda, E.M. (2000) Constitutive Models of Rubber Elasticity: A Review. *Rubber Chemistry and Technology*, 73, pp. 504-523. http://dx.doi.org/10.5254/1.3547602
8. Brown, J. (2009). Democracy, sustainability and dialogic accounting technologies: Taking pluralism seriously. *Critical Perspectives on Accounting*, 20(3), pp. 313-342. https://doi.org/10.1016/j.cpa.2008.08.002
9. Brown, J. and Dillard, J. (2021). Accounting for non-financial matters: technologies of humility as a means for developing critical dialogic accounting and accountability. *Meditari Accountancy Research*, 29(2), pp. 197-218. https://doi.org/10.1108/MEDAR-01-2020-0692
10. Budding, T. and Helden, J. V. (2022). Theme: Politicians' use of accounting informationEditorial: Unraveling politicians' use and non-use of accounting information. *Public Money & Management*, 42(3), pp. 137-139. https://doi.org/10.1080/09540962.2022.2028467
11. Chen, H., Tian, Y. and Daugherty, P. J. (2009). Measuring process orientation. *The International Journal of Logistics Management*, 20(2), pp. 213-227.

https://doi.org/10.1108/09574090910981305
12. Corrigan, L. T. (2018). Budget making: the theatrical presentation of accounting discourse. *Critical Perspectives on Accounting*, 55(1), pp. 12-32. https://doi.org/10.1016/j.cpa.2017.12.001
13. Craig, R. T. (1999). Communication theory as a field. *Communication Theory*, 9(2), pp. 119-161. https://doi.org/10.1111/j.1468-2885.1999.tb00355.x
14. Craig, R. T. (2008). Communication as a field and discipline. *The International Encyclopedia of Communication*, 2(2), pp. 675-688.
15. Dey, C. (2003). Corporate 'silent and 'shadow social accounting. *Social and Environmental Accountability Journal*, 23(2), pp. 6-9. https://doi.org/10.1080/0969160X.2003.9651696
16. Dianati Deilami. Z. (2014). Research Method in Accounting: A Practical Guide for Writing Dissertations and Articles, Iranian Management Accounting Association, Second Edition. Tehran, Iran. (In Persian)
17. Dillard, J. and Vinnari, E. (2019). Critical dialogical accountability: From accounting-based accountability to accountability-based accounting. *Critical Perspectives on Accounting*, 62(1), pp. 16-38. https://doi.org/10.1016/j.cpa.2018.10.003
18. Fornell, C. and Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), pp. 39-50.
19. Fremeaux, S., Puyou, F. R. and Michelson, G. (2020). Beyond accountants as technocrats: A common good perspective. *Critical Perspectives on Accounting*, 67, A. 102054. https://doi.org/10.1016/j.cpa.2018.07.003
20. Ghanbari, V., Abdoli, M., Valiyan, H. (2021). The Design of Effectiveness of Environmental Accounting Mechanisms Model Aimed at Sustainable Development of Stock Exchanges Companies by Grounded Theory Approach. *Environmental Researches*, 11(22), pp. 57-72. (In Persian)
21. Godowski, C., Nègre, E. and Verdier, M. A. (2020). Toward dialogic accounting? Public accountants' assistance to works councils− A tool between hope and illusion. *Critical Perspectives on Accounting*, 69(3), A. 102095. https://doi.org/10.1016/j.cpa.2019.102095
22. Gray, R. and Bebbington, J. (2001). *Accounting for The Environment*. 2nd ed. London: Sage. London, England
23. Gray, R., Dey, C., Owen, D., Evans, R. and Zadek, S. (1997). Struggling with the praxis of social accounting: Stakeholders, accountability, audits and procedures. *Accounting, Auditing & Accountability Journal*, 10(3), pp. 325-364. https://doi.org/10.1108/09513579710178106
24. Grossi, G., Biancone, P. P., Secinaro, S. and Brescia, V. (2021). Dialogic accounting through popular reporting and digital platforms. *Meditari Accountancy Research*, 29(7), pp. 75-93. https://doi.org/10.1108/MEDAR-01-2021-1163
25. Gunarathne, N., Lee, K. H. and Hitigala Kaluarachchilage, P. K. (2023). Tackling the integration challenge between environmental strategy and environmental management accounting. *Accounting, Auditing & Accountability Journal*, 36(1), pp. 63-95. https://doi.org/10.1108/AAAJ-03-2020-4452
26. Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20(2), pp. 195-204.
27. Hussain, S., Liu, L. Y. J. and Miller, A. D. (2020). Accounting as a dichotomized discipline: An analysis of the source materials used in the construction of accounting articles. *Critical Perspectives on Accounting*, 66(2), A. 102086. https://doi.org/10.1016/j.cpa.2019.04.007
28. Jones, A. and Willis, M. (2003). The challenge of XBRL: business reporting for the investor. *Balance sheet*, 11(3), pp. 29-37. https://doi.org/10.1108/09657960310491172

29. Littlejohn, S. W. and Foss, K. A. (2011). Theories of Human Communication. Tenth Edition, Waveland Press, Long Grove, Illinois
30. Mael, F. and Ashforth, B. E. (1992). Alumni and their alma mater: A partial test of the reformulated model of organizational identification. *Journal of Organizational Behavior*, 13(2), pp. 103-123.
31. Malthus, S. and Fowler, C. (2009). Perceptions of accounting: a qualitative New Zealand study. *Pacific Accounting Review*, 21(1), pp. 26-47. https://doi.org/10.1108/01140580910956849
32. Manetti, G., Bellucci, M. and Oliva, S. (2021). Unpacking dialogic accounting: a systematic literature review and research agenda. *Accounting, Auditing & Accountability Journal*, 34(9), pp. 250-283. https://doi.org/10.1108/AAAJ-08-2020-4736
33. McGoun, E. G., Bettner, M. S. and Coyne, M. P. (2007). Pedagogic metaphors and the nature of accounting signification. *Critical Perspectives on Accounting*, 18(2), pp. 213-230. https://doi.org/10.1016/j.cpa.2005.12.003
34. Medawar, C. (1976). The social audit: a political view. *Accounting, Organizations and Society*, 1(4), pp. 389-394. https://doi.org/10.1016/0361-3682(76)90041-6
35. Melissa Walters-York, L. (1996). Metaphor in accounting discourse. *Accounting, Auditing & Accountability Journal*, 9(5), pp. 45-70. https://doi.org/10.1108/09513579610367242
36. Merkl-Davies, D. M. and Brennan, N. M. (2017). A theoretical framework of external accounting communication: Research perspectives, traditions, and theories. *Accounting, Auditing & Accountability Journal*, 30(2), pp. 433-469. http://dx.doi.org/10.1108/AAAJ-04-2015-2039
37. Millar, E. and Searcy, C. (2020). The presence of citizen science in sustainability reporting. *Sustainability Accounting, Management and Policy Journal*, 11(1), pp. 31-64. https://doi.org/10.1108/SAMPJ-01-2019-0006
38. Morgan, G. (1988). Accounting as reality construction: towards a new epistemology for accounting practice. *Accounting, Organizations and Society*, 13(5), pp. 477-485. https://doi.org/10.1016/0361-3682(88)90018-9
39. Nicholls, A. (2018). A general theory of social impact accounting: Materiality, uncertainty and empowerment. *Journal of Social Entrepreneurship*, 9(2), pp. 132-153. https://doi.org/10.1080/19420676.2018.1452785
40. Pärl, Ü., Paemurru, E., Paemurru, K. and Kivisoo, H. (2022). Dialogical turn of accounting and accountability integrated reporting in non-profit and public-sector organizations. *Journal of Public Budgeting, Accounting & Financial Management*, 34(1), pp. 27-51. https://doi.org/10.1108/JPBAFM-11-2019-0178
41. Rutherford, B. A. (2002). The production of narrative accounting statements: An exploratory study of the operating and financial review. *Journal of Applied Accounting Research*, 6(3), pp. 25-56. https://doi.org/10.1108/96754260280001031
42. Sami, S., khosravipour, N., lashgari, Z. (2021). Effect of Dialectical Metaphor of Auditors' Negotiation Maturity Process. *Journal of Accounting Knowledge*, 2(2), pp. 1-24. (In Persian)
43. Shahri, M., Fazeli, N., Abdoli, M. (2021). Expanding of Anthropocene Theory Paradigm in Examining Corporate Environmental Behaviors on Green Accounting Strategic Consequences. *Management Accounting*, 14(48), pp. 193-214. (In Persian)
44. Simon, H. A. (1997). Models of Bounded Rationality. Vol. 3: Empirically Grounded Economic Reason. *Cambridge, MA: The MIT Press*. 2(2), pp. 1-93. https://doi.org/10.7551/mitpress/4711.001.0001
45. Uvaneswaran, S. M., Tsega, Z. and Seid, M. (2019). Efficacy of Social Accounting Practices on the Financial Performance: Evidence from Ethiopia. *Journal of Innovation in Business and*

Economics, 3(1), pp. 11-22. https://doi.org/10.22219/jibe.v3i01.7192
46. van der Meer-Kooistra, J. and Vosselman, E. (2012). Research paradigms, theoretical pluralism and the practical relevance of management accounting knowledge. *Qualitative Research in Accounting & Management*, 9(3), pp. 245-264. https://doi.org/10.1108/11766091211257452
47. Webber, B. (2006). Accounting for discourse relations: Constituency and dependency. *Intelligent linguistic Architectures*, 1(1), pp. 339-360.
48. Yen, A. C., Riley, T. J. and Liao, P. (2017). Chinese vs US investors' reactions to accounting narratives: An experiment. *Asian Review of Accounting*, 25(4), pp. 526-548. https://doi.org/10.1108/ARA-12-2016-0144