A RESEARCH ON LOCAL GOVERNMENTS' VIEW ON INTEGRATED REPORTING IN TURKEY AND A MODEL PROPOSAL

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PLAGIARISM

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

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Müzeyyen Çiğdem AKBAŞ

ABSTRACT

Municipalities are expected to be more transparent, accountable, understandable and to have stronger communication channels with stakeholders. Corporate reports are the tools that establish strong dialogs with stakeholders. Integrated Reports, which provide the opportunity to deliver both financial and non-financial information in a single report, is one of the innovative corporate reporting model. The purpose of this study is to propose an "Integrated Reporting Model" applicable by local governments in Turkey and to make "Integrated Performance Measurements". In line with the purpose of the study, annual reports published by 29 Metropolitan Municipalities in Turkey between 2018-2020 were examined, the social data obtained from that reports were digitized with the "content analysis" method, and a model proposal was constituted and performance measurement was together with the opinions of 12 experts, by using the "analytical hierarchy process" technique of "multi-criteria decision making" methods. The result of the analysis indicate that integrated reporting is an applicable reporting model for Municipalities and current reporting models of them close to integrated reporting in terms of their contents but different by their structures, and frameworks.

***Key words**: Accountability, Financial Reporting, Integrated Reporting, Municipality, Integrated Reporting Index, Social Reporting, Transparency*

ÖZET

Paydaşları ile en yakın teması kuran kamu kurumu statüsünde olan Belediyelerin daha şeffaf, hesap verebilir, anlaşılır ve güçlü iletişim kanallarına sahip olması önemlidir. Kurumsal raporlar, yerel yönetimler ve paydaşları arasındaki iletişimi sağlayan araçlardır. Tek bir raporda hem finansal hem de finansal olmayan bilgileri paydaşlarına ulaştırma olanağı sunan Entegre Raporlar, yerel yönetimler tarafından kullanılabilecek yenilikçi kurumsal raporlama örneklerindendir. Bu çalışmanın amacı ülkemizde hizmet veren yerel yönetimler tarafından uygulanabilir bir "Entegre Raporlama Modeli" önerisinde bulunmak ve önerilen model kapsamında "Entegre Performans Ölçümlerini" yapmaktır. Çalışmanın amacı doğrultusunda, ülkemizde bulunan 29 Büyükşehir Belediyesi'nin 2018-2020 yılları arasında yayınladıkları yıllık faaliyet raporları incelenmiş, elde edilen sosyal veriler "içerik analizi" yöntemi ile sayısallaştırılmış ve 12 uzmandan alınan görüşler ile birlikte "çok kriterli karar verme" yöntemlerinden "analitik hiyerarşi süreci" tekniği kullanılarak model önerisi oluşturulmuştur. Sayısallaştırılmış sosyal veriler ile yerel yönetimlerin finansal raporlarından elde edilen finansal veriler analiz edilerek yerel yönetimlerin ilgili tarih aralığındaki performans ölçümleri yapılmıştır. Analiz sonucu, entegre raporlamanın Belediyeler için uygulanabilir bir raporlama modeli olduğunu ve mevcut raporlama modellerinin içerik olarak entegre raporlamaya yakın, ancak yapıları ve çerçeveleri bakımından farklı olduğunu göstermektedir.

***Anahtar kelimeler**: Entegre Raporlama, Belediye, Entegre Raporlama Endeksi, Finansal Raporlama, Sosyal Raporlama, Hesap Verilebilirlik, Şeffaflık*

To VERA

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1. INTRODUCTION

The international community has targeted three extremely demanding agenda items during the recent years. Sustainable Development Goals (SDGs), and the New Urban Agenda, and the Paris Convention on Climate Change are these agenda items. The aim of these agenda items is to ensure long-term prosperity, peace and sustainability. However, in order for these agenda items to reach their potential and to achieve the targeted change, a strong sense of belonging must be ensured at the local level. Around the world, local and regional governments are crucial in fostering a feeling of community. Integration of the agendas and the responsibility of developing practices, ensuring local, regional, national and international harmonization are among these tasks. The UN High-Level Political Forum (HLPF) on Sustainable Development in 2016, (Global Reporting Initiative), the first framework of the Local and Regional Governments Forum, is the key to this approach. Accelerating the implementation of local and regional global goals requires a rights-based approach, and strategies founded on the ideas of "City Right" are supported. These approaches require the creation of a new framework for building our cities together the establishment of new relationships with different stakeholders.

Public administration in developed countries has been involved in a comprehensive process in recent years. This process is based on ensuring that public resources are allocated more effectively, and the use of changes in management, organization and information systems to improve public performance. This movement is called "New Public Administration". The new public management approach brings the change to the forefront with the new public management approach. Basically, it

aims to make the public administration more sensitive to the needs of the citizens, more transparent and flexible, and more supportive of the political life of the citizens. Thus, there is an increasing interest in the performance of public sector organizations and their impact on the external environment and the whole world. Beyond the traditional accounting practices, the extent to which the public sector organization uses its own financial capacity harmoniously is the main subject. Budgeting, expenditures, management of public money and new public financial management systems draw attention to effective and sustainable economic management and service delivery (Katsikas, Manes Rossi, & Orelli, 2017). At the same time, a broad initiative has been promoting the voluntary implementation of sustainable reporting for the public sector for the past decade (Global Reporting Initiative, 2005). The European Commission supports central and local governments in adapting to sustainability reporting and integrated reporting.

With the “Local Agenda 21” implementation in Turkey, it has been stated that local government units and non-governmental organizations play an important role in achieving the goals of participatory democracy, and these actors should ensure that each local government unit has a democratic and participatory structure for a sustainable development and it has been targeted to cooperate with non-governmental organizations in a multifaceted and intensive manner (Marşap, Demirel, & Altınay, 2020).

In order to develop a city vision, increase citizenship awareness, protect the rights of the city, ensure sustainable development, increase environmental awareness, increase social assistance and solidarity, for transparency, accountability,

participation, and governance and implementation of decentralization principles it is needed to provide an environment to extend the participatory management approach in the city and enable citizens to have a voice in the administration. This concept coincides with the stakeholder approach. But stakeholder term could not be seen in the regulations in Turkey. However, when the situation is evaluated in terms of public institutions, it is thought that the dissemination of the stakeholder approach will create a value-creating, transparency and accountability-enhancing effect.

As a strategic communication tool to integrate various viewpoints on value creation, integrated reporting is becoming more popular. It provides different perspectives on how organizations approach sustainability, corporate governance, natural capital, intellectual capital, human capital, and social capital. (Katsikas, Manes Rossi, & Orelli, 2017). To date, there have been many studies on Integrated Reporting with regard to private entities. However, additional significance has to be given to the importance of sustainability in the public sector. According to Birney et al. (Birney, Clarkson, Madden, Porritt, & Tuxworth , 2010), organizations in the public sector play a crucial role in implementing sustainable development. Every aspect of their role, from social to environmental services, shapes how people live their lives.

In Turkey, local governments are obligated to publish annual and financial reports to share their social and financial activities to their stakeholders. However, the published annual reports do not fully reflect the value creation process of local governments. Accountability in the public sector is a different, complex, chameleon-like and multifaced concept including many dimensions (Barberis, 1998; Mulgan, 2000; Sinclair, 1995). The public sector with its multiple stakeholders requires a much

broader set of accountability forms which goes beyond the scope of financial dimensions, by also including public, managerial, bureaucratic, political, professional and personal accountability (Sinclair, 1995). “One Report” is needed in the public sector. One Report simply means that the company's essential financial and nonfinancial information has to be included in a single report (Eccles & Krzus, 2010). More importantly, One report will show the effects of financial and non-financial information on each other.

Increasing interest in integrated reporting, measuring financial and social performance, brings along the discussions that the methods should be parallel to each other has brought. In general, in the formation and reporting of financial data from quantitative information, the use of certain principles, such as accepted accounting principles, makes it somewhat easier, but it is a social issue that contains more qualitative information. The same does not apply when there are reports. Especially in the 1970s since the end of the years, the social performance and financial performance of companies have been many academic studies have been conducted on the relationship between these studies. It has brought with it discussions on how to measure social reporting. This reducing controversy and measuring the social performance of companies, as well as sustainability or social responsibility to support sustainability indices were created. When the academic literature is examined, it is seen that the social in many studies on the relationship between performance and financial performance, as social performance, corporate social responsibility or sustainability indices are used. In these studies, financial performance and social performance is discussed separately and no studies have been conducted on how it affects the firm as a whole.

It is clear from the literature that studies on integrated reporting typically involve theoretical discussion and qualitative research methods, whereas quantitative research methods are used to a lesser level (Romolini, Fissi , & Gori, 2017). The primary cause of this is the absence of a generally acknowledged standard methodology for determining and measuring non-financial variables (Kotane, 2012). However, when analyzing and comparing indicator performances, quantitative data are crucial.

It is seen in the analyzes made within the scope of the study that; the annual reports published by local governments, which are expected to be transparent and accountable to their stakeholders, are not at the level that is adequately explanatory, understandable, easy to read and provides the expected information. The reports prepared by local governments are prepared in order to fulfill a legal obligation in accordance with its rules. However, published corporate reports are the management tools that local governments can express themselves most effectively. It will strengthen communication channels if local governments, which have not only administrative but also political concerns, convey accurate and qualified information to their stakeholders. One of the best methods for this is the implementation of the integrated reporting model in local governments. Thus, in a single report, information transfer and sharing will be ensured in a simpler language, in which the most important issues are included, and local services are expressed with a global understanding.

The aim of this study is to create an integrated reporting index model that combines financial and social performance and can be used at the national level and to

measure the integrated performance of local governments. In this context, it will be discussed whether integrated reporting is a viable reporting model for local governments and it will be evaluated how close the annual reports published by local governments are to the integrated reporting model. It is one of the expected results of the study to raise awareness with the integrated reporting model proposal in local governments.

The study consists of four parts, and in the first part, the concept of integrated reporting will be emphasized and information will be given about the concepts of financial and social reporting, which are the basic components of integrated reporting.

The second part of the study will focus on the measurement of financial and social performance.

In the third part, information will be given about the place, importance and applications of integrated reporting in the public sector, and the current institutional reports applied in the public sector in our country will be mentioned.

In the fourth part of the study, a model will be created to measure integrated performance within the scope of the findings obtained in the first three parts and this model will be applied to the metropolitan municipalities in our country. An integrated reporting model proposal will be created for local governments with the use of multi-criteria decision-making methods supported by expert opinions.

2. LITERATURE REVIEW

2.1.Integrated Reporting and Its' Emergence

2.1.1. The concept of integrated reporting

Milton Friedman (Friedman, 1970) argued in his doctrine titled "A Friedman Doctrine: The Social Responsibility of Business to Increase Its Profits" that; a company has not socially responsible to the society means that the only social responsibility of companies is to produce profits. However, this argument has been changed in recent decades by increased attention to corporate governance issues. The change in the role and objective of corporate governance has transformed the concept of "value creation", which now refers not only to the short but also to the medium and long terms and covers the whole range of resources and relationships an organization uses and effects (Girella, 2021). Integrated reporting is the most advanced and comprehensive instrument that boards and governance professionals can incorporate into their strategy and business models to drive this expanded concept of value creation, and test businesses resilience against factors such as environmental, financial, and social capitals (Girella, 2021).

"Integrated Reporting" <IR>, in its most basic sense is the integration of non-financial information to financial information of companies. In this regard, integrated reporting aims to present as a whole how the firm creates value by adding its strategies, corporate governance and social performance to the existing financial model.

When discussing the integrated reporting, it is necessary to consider the integrated thinking factor. Integrated thinking is closely related to integrated reporting. Integrated thinking should be seen as a continuous journey, one that evolves over time, one that continues to promote collaboration across all sections of an organization (Value Reporting Foundation, 2021). An organization actively considers the connections between its many operating and functional units and the capitals that it utilizes or affects. (IIRC, 2021). The actions and outputs of the organization increase, reduce, or transform the capitals, which represent stocks of value. Although organizations compiling an integrated report are not obligated to use this classification or to organize their report according to capitals, they are divided into financial, manufactured intellectual, human, social and relationship, and natural capital. (IIRC, 2021).

When the emergence process of <IR> is examined, it could be seen that it has started to be discussed with the crises experienced in 2008. Encountered company scandals and financial crises have negatively affected the trust of the society. In addition to this impacts, social problems such as climate change, water scarcity, rapid consumption of natural resources and human rights have further increased economic uncertainties. This situation caused the decision makers to reconsider the reliability of the reports published by companies; it has been discussed whether financial and social information published independently of each other reflects information about how companies will create value in the short and long term. Associated with the discussion of social reports published by the companies many academic studies have been carried out. The findings of the studies that show the positive relationship between social performance and financial performance has increased investors' interest in

social performance (Black Sun Plc., 2012). Thus, it is emphasized more and more that the environmental, social and managerial performance of companies have significant impacts on their financial performance and shareholder values and it is concluded that traditional financial and social reports did not provide sufficient information about the current and future performance to their shareholders and stakeholders. As a result of these discussions, integrated reporting which includes financial and social information has started to gain importance.

In this part of the study, the conceptual perspective of integrated reporting will be explained, and then the financial and social reporting will be discussed. Emergence of financial and social reporting carried out in these areas by mentioning their processes and historical developments, national and international studies will be evaluated.

2.2. Conceptual Framework

Since the 1980s, with the intense discussion of social and environmental effects, it has been seen that classical financial statements are insufficient to reflect the real situation of companies. Thus, besides the financial statements, information on management's disclosures, environmental reports and corporate governance started to be published (Aydın, 2015). Integrated reporting is a concept that emerged parallel to the evolution of social reporting. It firstly mentioned by Clark C. Ab (1977) in his book "The Social Audit For Management". As one of the milestones of integrated reporting, sustainable development, was mentioned in the Bruntland report published by the World Commission on Environment and Development. Europe's first

sustainability reporting was implemented in 1995 by the Environmental Management and Inspection Plan (IMIP). In 2000, the Global Reporting Initiative (GRI) published the first principles of sustainability reporting.

In June 2000, the European Commission, published the European Union Financial Reporting Strategy; "The Way Forward" and recommended that the annual reports would not be limited to financial data only, besides appropriate environmental and social aspect analyzes and the company's development, performance and position should be placed in. This recommendation continued in the Accounting Development Manual in 2003 and the development of the company, whose reports include labor and environmental issues, stated that financial and non-financial key indicators reflecting the performance should be disclosed. The first integrated reporting was launched in 2002 by the Danish pharmaceutical company Novozymes. In 2006 the European Commission obligated the firms that were quoted on the stock exchange to publish their corporate governance status in their annual financial statements. In 2010, Integrated Reporting has become mandatory for companies listed on the South African Johannesburg Stock Exchange.

The Integrated Reporting Committee was established to adopt the integrated reporting principles in 2010 by " Global Reporting Initiative" and "The Prince of Wales" Accounting for Sustainability Project (A4S). In 2011, Integrated Reporting Committee published the first integrated reporting criteria draft.

When the historical process of integrated reporting is examined, although it seems like a new concept, as mentioned above, it is basically the reporting of financial

information and social information together. In this respect, the following sections will focus on corporate reporting, which includes financial and non-financial information, and then financial and social reports, which are within the scope of corporate reporting, will be discussed. The historical development of the reports, the situation in the world and our country's legislation will be discussed.

2.3. Development of Corporate Reporting and Current Approaches

With the liberalization of the markets, the gradual growth of the enterprises, all the processes taking place in the enterprise have revealed the need to have more information in the decisions that the stakeholders of the enterprise will take. Therefore, over time, financial reporting alone has become insufficient for decisions to be taken. The main reason for this is that it has become almost impossible to measure the firm values of enterprises with only book value in advanced knowledge-oriented economies. Today, the social responsibilities of businesses have gained importance at least as much as profit goals (Eccles & Serafeim , 2014).

Corporate reporting, which has undergone a quick drop depending on the developments in information and communication technologies, has entered into a quick drop depending on the expectations of the investors and globalization. Today, information is delivered to users very quickly and comprehensively, and the effectiveness of information in the decision-making process is increasing. Crowther (2012) describes the historical development of corporate reporting in five phases:

1. **Before 1940:** This process until World War II, was the period in which the firm and the environment were separated, the firm ignored its environment and corporate reporting was more of an internal event. In this period, corporate reporting was only reporting on the historical results of operations and used by managers and owners.
2. **Between 1940-1975:** This is the period when managers become aware of the existence and importance of the external environment in order to attract investors. Therefore, corporate reporting aimed to reach potential investors as well as existing investors, and the scope of corporate reporting has become more future-oriented than just past activities.
3. **Between 1975-2000:** This is the period in which corporate reporting has seen the most dramatic change. In this period, the firm is now more focused on the external environment than communicating with internal and potential members. In corporate reporting, the future projections and targets of the enterprise have gained more weight than the past performance. In addition, in this period, corporate reporting started to become aware of other stakeholders and started to show corporate citizenship by providing information about its communication with employees, society, customers and local communities.
4. **After 2000:** This is a period in which corporate reporting is easily accessible to almost everyone through websites. In this period, the reporting is designed in a colorful/formed and rich content to attract the attention of almost all relevant segments and all stakeholders.
5. **Step 5:** Widespread use of the Internet enabled the transition to step 4 after step 3. The 5th step period can be argued as the era of electronic communication and reporting, which expresses the current level and future of

corporate reporting. This period is a process in which annual reports are no longer limited to being printed, and electronic reporting is also an image of institutions. Institutions that have started to use social media have communicated with their stakeholders through these tools.

As mentioned above, today we experience the 5th stage, in which every shareholders of the corporations would reach to the institutions and the required information easily through the use of electronic communication. Therefore, new reporting formats should be easily accessible, easy to read, providing transparency and accountability, inclusive of all information and shareholder friendly.

To clarify the corporate reporting, the historical development of which is explained above, at the simplest level; with corporate reporting, which means presenting financial and non-financial information to all shareholders of the enterprise, all decision makers can easily access the information needed for various operations of the enterprises (Eccles & Serafeim , 2014). Financial reports are the reports that cover the financial performance, operating results and cash flows of the enterprises. Non-financial reporting includes information such as brand, market share, customer satisfaction, social responsibility, compliance with corporate governance principles. Since environmental, social and economic risks that businesses may face today directly affect the sustainability of businesses, investors demand non-financial reports in addition to financial reports of businesses against these risks (Aras & Sarıoğlu, 2015). Today, social reports (non-financial) has gained importance and corporations that publish social reports are more sincere, more explanatory and more reliable to express themselves. They are the most appropriate channels to establish

trust, take precautions against possible fraud and corruption by presenting both financial and non-financial information in a transparent manner, and by providing regular information financial and non-financial efficiency of the corporation would increase. Reporting types within the scope of non-financial reporting are grouped below:

a) **Annual Reports:** These reports, prepared in accordance with international standards, provide detailed information about the corporate structure and financial situation of the enterprise in order to inform all stakeholders.
b) **Corporate Social Responsibility Reports:** These are the reports that provide the public disclosure to the extent of the expectations of the stakeholders by presenting the economic, environmental and social results of the activities of the enterprise to the stakeholders. Today, it is mostly used in the same sense as sustainability reports.
c) **Sustainability Reports:** These are the reports prepared in order to ensure that the effects of the environmental, social and economic activities of the enterprise on the business strategies are understood and better managed in order to make the enterprises more sustainable.
d) **Integrated Reporting:** Integrated reporting is a type of reporting that focuses on the strategy and the value it creates, covering how the management will take the business further and what opportunities and challenges environmental changes bring, and showing how the business's capital is used and investment opportunities.

Corporate reporting is a natural result of the corporate governance approach. Corporate reporting is of great importance especially in terms of complying with the principles of public disclosure and transparency and stakeholders. According to corporate governance principles, businesses must disclose their financial and operating results, targets and predictable risk factors to their stakeholders. Today, corporate reporting covers a lot of information that may be of interest to its stakeholders, such as the efficiency of the enterprise's use of assets, return on investments, risk management, sustainability, public obligations, social responsibility activities, social sensitivity and environmental sensitivity, especially compliance with corporate governance principles.

Under the scope of corporate reporting two types of corporate reports, such as financial and social, will be discussed to next part of the study.

2.3.1. Financial reporting and its' emergence

The development of financial reporting is sometimes correlated with the shift to what is sometimes referred to as financial (or managerial) capitalism, which is defined by the joint-stock company form, "arms-length" investment, restricted liability, and the separation of ownership from control. (McCartney & Arnold, 2012). The form and context of financial statements are determined by the demands of outside investors. This process may be direct (leading to voluntary disclosure) or mediated through the regulatory agencies of the state (Watts, 1997; Watts, 2006; Edwards, 1985; Edward, 1989; Lee, 1975; Lee, 1979).

Although financial reporting has undergone significant changes in the last century, the debates on whether it reflects the current and future performances of companies still continue (Eccles, Beiting, & Daniela, 2010). All listed companies are required to publish a report in which they present their financial status at least once a year. These reports are published in accordance with a number of accounting standards such as "International Financial Reporting Standards" or "American Generally Accepted Accounting Standards". Quality and transparent financial reporting, which accurately depicts the firm's financial performance, is the cornerstone of fair and effective capital markets.

An accounting information system is needed to determine how effectively the assets and resources of the business are used by the managers, and the value created for the shareholders by the business activities. As in every system, the accounting information system consists of input, process and output stages. Financial reporting, which is the output of accounting, is the reporting that transfers financial information about the financial situation, operating results, cash flow, equity, fund-raising power of the enterprise to the information users about the enterprise. It also has technological infrastructure such as measurement methods, reporting standards, auditing standards, court decisions regarding fraudulent financial reporting, a specific internal control system, measurement system and instant recording of information. Despite this, there are arguments that financial reporting does not measure the value of the firm exactly, it is too complicated, and the financial statements can be understood by people with a certain level of knowledge.

In this part of the study, the historical development of financial reporting in the world and in Turkey, and the weak and strong aspects of financial reporting will be discussed.

2.3.2. Development process of financial reporting in the world

While the developments and crises in the world economy are effective in the emergence and development of financial reporting standards in the world, on the other hand, the need for investors to make healthier investment decisions and the need for qualified information based on financial reporting and standards in order for businesses to easily meet their financing needs by demonstrating their performance (Alp & Üstündağ, 2009). Many countries and institutions, especially developed countries, have been influential in the development process of financial reporting standards in the world (Koç, Demir, & Demir, 2008). Although the first regulations in today's sense started in England, the most important decisive developments emerged in the USA.

In the USA, a system based on a mixture of public and private sector regulations applies to the establishment of accounting standards. The main regulations regarding accounting standards are included in the "1933 Securities Act" and "1934 Securities Exchange Act", which were enacted in response to the 1929 financial crisis. The Security Exchange Commission (SEC) was established to enforce the 1933 Act, and the 1934 Act gave the SEC the power to set the regulations regarding financial reporting as stipulated by both laws. Although the SEC has issued documents on accounting issues under the name of "Accounting Series Releases" and "Staff

Accounting Bulletins" since its establishment, it has limited its role in setting accounting standards to auditing and oversight functions in general, allowing private sector regulatory agencies to be effective in determining the rules for accounting and independent auditing. The most important of these organizations is AICPA (Başpınar, 2004).

The developments regarding the establishment of accounting standards in the USA are divided into three periods in terms of regulatory institutions that are effective in regulations. These are the "1939-1959 AICPA Accounting Committee and 1959-1973 Accounting Principles Board (APB)" periods, in which AICPA played an active role, and the Financial Accounting Standards Board (FASB), which was established in 1973 and still fulfills the function of establishing accounting standards in the USA. are the periods. FASB publishes accounting standards called "Statements of Financial Accounting Standards (SFAS)" and "Statements of Concepts", which includes the general concepts used in the development of standards, and "Interpretations", which contain explanations for clarifying and elaborating the standards created (Başpınar, 2004).

The history of the convergence of international accounting standards, it is taken to the end of the 1950s, due to the global economic integration that emerged after the World War II and the increase in international capital movements accordingly. In order to reduce the gap between accounting principles used in major capital markets around the world, initial efforts have been on the harmonization of international differences. In the 1990s, this harmonization concept gave way to the concept of convergence (Koç, Demir, & Demir, 2008). Convergence means the

development of high quality, uniform international accounting standards that can be used at least in major capital markets around the world.

The International Accounting Standards Committee (IASC), the first institution to set international standards, was established in 1973. It was restructured in 2001 to become the International Accounting Standards Board (IASB) as an independent international standards issuer. After this date, international standards have continuously improved. By 2013, the use of international financial reporting standards (IFRS) issued by the IASB or the organization that may be its representative in the European Union and more than 100 other countries was allowed or became mandatory.

The financial Accounting Standards Board and the International Accounting Standards Board have worked together since 2002 on the development and convergence of US generally accepted accounting principles and international financial reporting standards. As of 2013, Japan and China are also aligning their standards with international financial reporting standards. The SEC continually promotes the convergence of global accounting standards. On the other hand, the SEC has not decided whether to include international financial reporting standards in the US financial reporting system.

The historical development process of international accounting standards can be summarized as follows (FASB, 2022):

Table 1 *Historical Development of International Accounting Standards*

Year	Development
1960	Calls for international standards were made and some steps were taken. Interest in the field of international accounting began to grow in the 1950s, due to the global economic integration that emerged after World War II and the consequent increase in international capital movements.
1962	AICPA hosted the 8th International Congress of Accountants. It is widely accepted that there is a need for international accounting and auditing standards. The discussions focused on accounting in the world economy. Many participants suggested that steps should be taken to accelerate the development of auditing, accounting and reporting standards at the international level.
1962	AICPA reactivated its international relations committee. The purpose of the committee was to develop international cooperation between accountants and to establish programs to exchange information and ideas with the idea of ensuring the formation of

	final common standards. In 1964, the committee completed a review of international accounting standards and published it under the title Professional Accounting in 25 Countries.
1966	The International Research Group of Accountants was created. AICPA's colleagues in the UK and Canada formed a group to explore the differences between their standards. The group has been in operation for 10 years and they explored the differences in 20 areas of accounting, including best practice results.
1967	The first International Accounting book by Professor Gerhard G. Mueller was published, and Mueller later became a member of the FASB.
1970-1980	An international standards regulator began to develop and cooperate with the FASB. In the 1970s, the first international accounting standards regulatory body was established, and voluntary cooperation between the FASB, IASC, and other national standards-developing bodies gradually increased.

1973	It was established by IASC, AICPA and equivalent organizations in 8 countries. The mission of the IASC is to formulate, promulgate and promote worldwide acceptance of key standards for use in the public interest reporting of audited accounts and financial statements. Until 2002, only a few countries had decided to use IASC standards. Most of these countries were countries that lacked their own standard-setting infrastructures (Alp & Üstündağ, 2009).
1979	The FASB has formed its first task force of representatives of international standard developers. When the FASB undertook a project to review an accounting standard on exchange rates, it decided to include representatives of the UK, Canada and the IASC Accounting Standards Board on its task force. This was the FASB's first efforts towards formal international cooperation in developing a standard.
1987	IASC began to develop comparability and the project.

1987	The IASC has published 25 standards covering a variety of topics. Because these standards were essentially distillations of existing accounting practices used around the world, they often allowed different applications for the same transactions. The IASB launched a comparability and project improvement initiative to reduce the number of possible alternatives, making the standards more mandatory than descriptive.
1988	The FASB has been a member of the IASC advisory group and has been a non-voting observer at IASB meetings. As a member of IASC, AICPA coordinated US relations in IASC activities. The FASB/IASB relationship was an informal one. This changed in 1988, when the FASB became a member of the IASC advisory group providing technical and other support to the IASC, and a FASB representative was allowed to attend IASC meetings as an observer.
1988	The FASB announced its support for the internationalization of the standards. With the end of the 1980s, the need for a common

	public institution of international standards to facilitate the international flow of capital became a topic of worldwide interest. The FASB decided that the need for international standards was sufficient to focus activities in this area. FASB President Dennis Beresford announced his support for "international standards of high quality". International standards would gradually replace national ones, and new initiatives would be defined, although not directly involved, for the FASB to develop international standards.
1990	During the 1990s, the FASB developed its first strategic plan for its international activities and expanded the scope of cooperation with other standards developers. The U.S. Congress and SEC are starting to get involved with international accounting standards issues. In the late 1990s, the FASB joined the working group directly into the IASB to oversee the restructuring of the IASC.
1991	The FASB has published its first strategic plan for its international activities. The

	Board's first official plan for its international activities, the ultimate goal of internationalization, GAAP for external financial reporting high quality international accounting accepted by all countries such as defined the standards institution. The board reaches its final goal immediately is beyond reaching, the quality of accounting standards while improving its international comparability, short-term strategic goal of making financial statements more useful as built. The plan includes specific studies to achieve this goal drew the framework. These are: a) Having international standards in the projects of the Board actively consider their needs, b) Making joint projects with other standard developers, c) To actively participate in the processes of the IASC, d) Strengthening international relations e) To expand international communication.

1993	FASB and Accounting Standards Board of Canada section reporting undertaken a joint project between FASB and its Canadian counterpart. As a result of the project undertaken by the FASB and its partner institution in Canada, both institutions have published standards developed mainly on segment reporting.
1993	FASB and other standards developers created G4.
1994	The FASB and IASC began collaborating on their initial standards-development efforts.
1995	The FASB updated its strategic plan and embarked on a project to compare US GAAP and IASC standards.
1995	IASC began a core standard program; The Commissions for the International Organization of Securities (IOSCO) agreed to review these standards.
1996	The US congress declared its support for high-quality international standards. In October 1996, the National Securities Market Development Document became law.

1996	The SEC has announced that it intends to consider the acceptability of the use of IASC standards by foreign private organizations.
1998	The Asian financial crisis has triggered more calls for international standards.
1999	The FASB has published its vision for the future of establishing international accounting standards.
2000	The pace of convergence accelerated. The use of international standards grew rapidly, the FASB and IASB agreed to work collaboratively, and the US explored the adoption of international standards.
2000	The SEC has released a conceptual publication on international accounting standards.
2001	The IASC was restructured within the IASB.
2002	The European Union has decided to use international financial reporting standards (Alp & Üstündağ, 2009)
2002	Norwalk Agreement: FASB and IASB agree to cooperate. The US GAAP and IFRS agreed to work together to achieve convergence.

2003	The SEC reaffirmed the FASB as the US private sector standards regulator.
2005	The SEC provided a roadmap for eliminating the reconciliation requirement for foreign private entities preparing their financial statements under IFRS to align with the US GAAP by 2009.
2006	The FASB and IASB have published a memorandum of understanding (MoU). MoU expands Norwalk agreement. The following four guiding principles for convergence have been published. Convergence of accounting standards can best be achieved through the development of high-quality and joint standards over time. Rather than eliminating differences between standards that need meaningful improvement, boards should develop a new common standard that improves the quality of financial information. Meeting investors' needs means ensuring convergence as boards replace weaker standards with stronger ones.
2007	The SEC has published a roadmap for a possible preferential use of IFRS by US institutions.

2007	The FASB explained that the SEC's preferential possible use of IFRS would create a double reporting confusion.
2007	The FASB and IASB have published the convergence of their standards for business combinations.
2008	The FASB and IASB have updated their memorandum of understanding.
2008	The SEC has published a proposal for a roadmap on the adoption of IFRS in the USA and the first preferential use of IFRS.
2009	The FAF and FASB have published a review letter on the SEC's recommended roadmap. In the letter, it was stated that further research would lead to better results.
2010	The SEC has released a statement on global accounting standards and convergence support. Supported the convergence of US GAAP and IFRS.
2010	The FASB periodically reported on the US GAAP and IFRS convergence and development projects.
2011	The FAF and FASB provided feedback to the IFRS body on their strategy assessments.

2011	The report of the meeting of the national standard-setters (NSS) has been published.
2011	The IASB-FASB has published a progress report for the convergence study.
2012	The SEC's final report on the work plan has been released.
2013	The IFRS Organization created the accounting standards recommendation form. This form aims to improve collaboration among standard setters around the world and to advise the IASB to improve IFRS.

Note. This table is taken from the web page of FASB. Retrieved from https://www.fasb.org/page/PageContent?pageId=/international/briefhistory.html&bcpath=ff&isStaticPage

2.3.2.1. Development process of financial reporting in Turkey

In developing countries such as Turkey, there is a great need for foreign capital and investments to finance economic growth (Alp & Üstündağ, 2009). Therefore, high quality financial information plays a vital role. Various studies have been carried out in our country, as in many developed countries in the world, for the establishment of accounting standards. However, as a result of the studies carried out in Turkey, a multiple accounting standard system has emerged and a business has sometimes become subject to more than one accounting system.

The development of accounting standards in Turkey has taken place under the leadership of the state, and the effects of the laws and practices of this country have been seen by taking the example of the countries with which we have intense economic and rebel relations. In accounting practices, first the French legislation and publications and then the German legislation and publications had an impact. It was influenced by International Accounting Standards. It is observed that accounting practices in Turkey are generally guided by the provisions of the Turkish Commercial Code and the Tax Procedure Law, but in cases where the provisions on these issues do not meet the needs, some organizations with legal status conduct guiding studies for businesses that fall under their jurisdiction. The institutions that direct the accounting practices in Turkey and their studies can be summarized as in Table 2 (Başpınar, 2004):

Table 2 *Organizations Directing Accounting Practices in Turkey*

Institution	Study
Commission for Reorganization of Economic State Enterprises	Conducted the Uniform Accounting System study, which was published in 1968 and put into practice in 1972, which is mandatory for State Economic Enterprises (SEEs). An important step has been taken for the harmonization of accounting in SEEs and this regulation has set an example for future regulations and private sector organizations. However, this regulation remained in force for 22 years and was able to find an application area until 31.12.1993.

The Banking Association of Turkey	Carried out various studies on accounting in order to ensure application uniformity among banks.
Turkish Standards Institute Accounting Standards Special Standing Committee	It has been tasked with preparing the Turkish Accounting Standards. The standards prepared by the Committee are important in terms of approaching the EU Fourth Directive and in terms of the development of Turkish accounting.
Insurance Supervisory Board	Insurance and reinsurance companies operating in Turkey; They have to account for their work and transactions according to the uniform chart of accounts prepared by the Uniform Chart of Accounts Committee and started to be used as of 01.01.1994.
Capital Markets Board	The Board is separate for companies whose capital market instruments are traded in a stock exchange; It applies two different accounting systems, one separately, for businesses that are subject to the CMB. CMB, for companies whose capital instruments are traded in a stock exchange, "Accounting in the Capital Markets", Series: XI, No: 25, which was published in the Official Gazette dated November 15, 2003 and entered into force on the date of its publication, being effective from the first interim financial statements ending after 1.1.2005. Communiqué on Standards" has been published. This Communiqué covers all international accounting standards, the standards explained in the Communiqué

	are almost like translations of international accounting standards, apart from some nuances.
Ministry of Finance Accounting Standards Commission	The aim of the commission is to put an end to the standard confusion in our country and to prepare accounting standards that will be published from a single source, binding all segments. As a result of their work: a) Basic accounting concepts, b) Accounting policies disclosure, c) Financial statements principles, d) Financial statements preparation and presentation, e) Regulations have been made on the uniform accounting framework, chart of accounts and its operation.
Turkish Accounting and Auditing Standards Board (TMUDESK)	The studies carried out by these boards and the enactment of the Law No. 3568 regulating the accounting profession in our country contributed greatly to the accounting profession. TMUDESK has published 19 accounting standards. It has formed an important infrastructure for the studies to be carried out by the Turkish Accounting Standards Board.
Banking Regulation and Supervision Agency (BDDK)	In order to sustain that the financial statements of banks are in conformity with International Accounting Standards as of the end of 2020, the Accounting Practice Regulation, which contains regulations parallel to the International Accounting Standards, and 18

	communiqués regarding this regulation, which came into force as of 01.10.2002, were published.
Public Oversight Accounting and Audit Institution	"Public Oversight, Accounting and Auditing Standards Institution" was instituted with the Decree Law No. 660 on November 2, 2011, and the authority was given to publish Accounting and Auditing standards.

Note. This table is retrieved from *"Türkiye'de ve Dünyada Muhasebe Standartlarının Oluşumuna Genel Bir Bakış"* by A. Başpınar, *Maliye Dergisi*, 2004, s. 42.

The major reason for the need for IFRS in Turkey is the need for financial reporting in accordance with international standards, including high quality financial information, in order to attract foreign financial capital and foreign direct investments, since it is an emerging market, and the European Union membership process (Alp & Üstündağ, 2009).

2.3.3. Strengths and weaknesses of financial reporting

The financial reports of the business are significantly influenced by the decision makers as they decide how to allocate their resources. An efficient resource allocation is extremely important for an economic structure that encourages productivity, supports innovation, and provides an active market in financial transactions. But, users of the financial reports of the enterprise with insufficient information cannot evaluate the risks and opportunities for investments in a healthy way.

Today, in financial reporting, in addition to new chapters, notes and increased number of pages, there is a very high increase in information because of the advance in the number of components in the financial statements. From the perspective of report users, an increase in quantity is not a problem if the results in the report contain more useful information. But, there is a difference between the amount of information businesses want to declare to public and the amount of information users want (Eccles & Krzus, 2010).

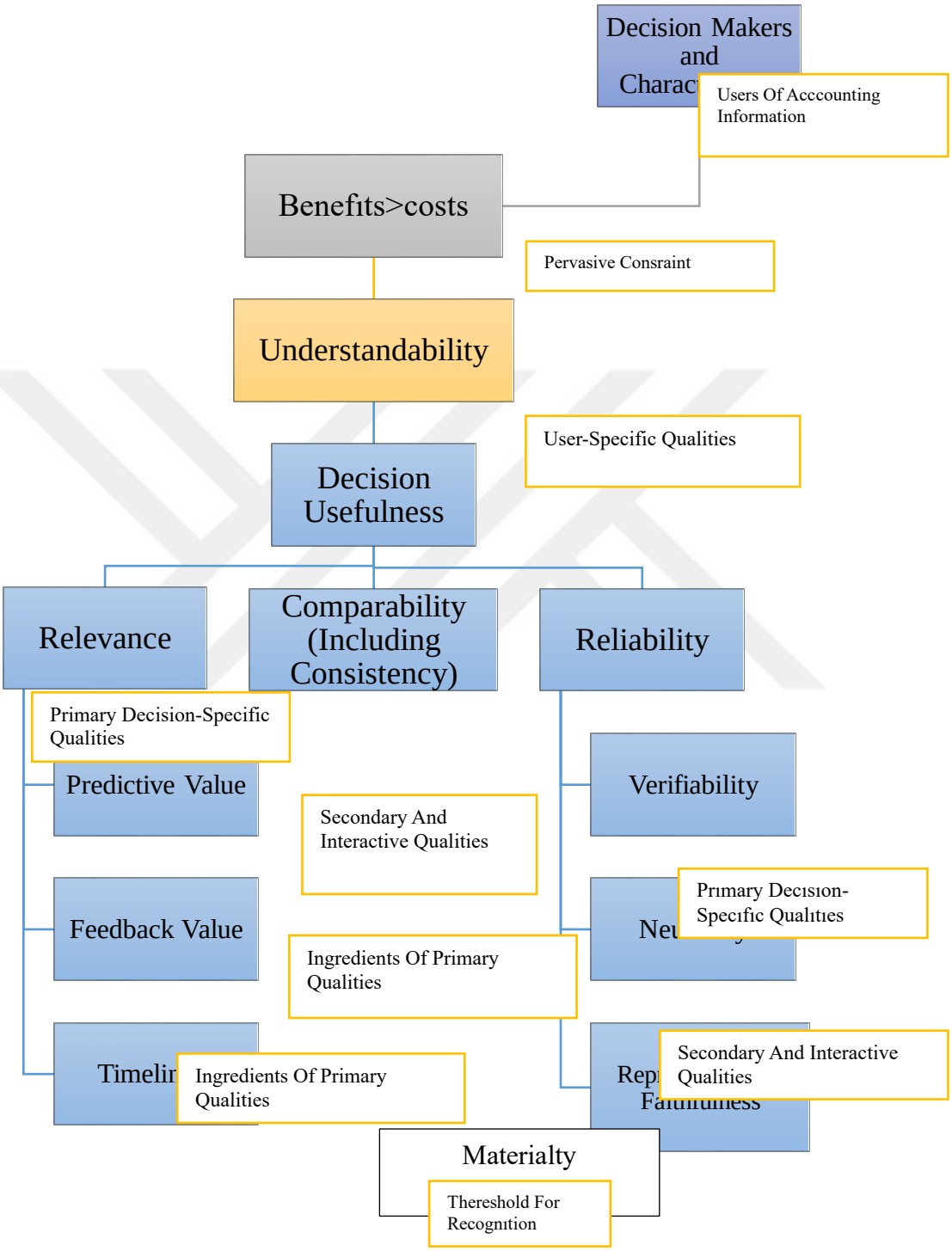
Financial statements, more generally financial reports, include financial information such as the financial position of the business, results of operations, cash flows, changes in equity items. Stakeholder groups, which we call information users, make decisions through financial statements. Today, however, it is a matter of debate whether financial statements fully help stakeholder groups to make decisions due to reasons such as globalization, increase in transaction volume in capital markets, technological developments, increased emphasis on environmental and social issues, and corporate governance being an important issue.

The information presented with the financial statements cannot fully meet the information demand of the investor. Intangible assets such as trademarks, patents, copyrights and know-how are assets that do not find much place in the financial statements although they affect the market value of the enterprise. Non-financial information that affects the market value of the entity should also be reported by the entity. "Integrating non-financial information into reports will be a fundamental solution to the problem of content in time" (Fırat, 2008).

On the other hand, the presentation of explanations and comments on business management by the manager will present the management performance of the business to the information users. Submission of separate reports on management performance by the entity is optional. Disclosure of information about successful management will increase the market value of the enterprise. However, this cannot be achieved with current financial reporting. Therefore, it is necessary to make the concept of providing optional information acceptable to everyone and to create encouraging legal and socio-economic conditions.

The importance of financial statements, more generally of financial reporting, cannot be denied. However, in today's conditions, financial reports cannot fully meet the stakeholders' information needs, whom we call business and information users. The entire society will suffer if an incorrect decision is made based on the financial performance of the firm with the data at hand, that is, the data in the financial statements. This is true for both the party making the decision and the party putting it into action. However, if the business simply ignores the interests of the shareholders, it can negatively affect the success of the business. Businesses have to consider their environmental and social impacts during their activities. In decision-making, information users should consider secured non-financial information, future expectations, environmental and social activities, as well as financial information. The hierarchy of accounting qualities developed by FASB is given in Figure 1 below (FASB, 2022).

Figure 1 *Hierarchy of Accounting Qualities*



Note. This figure is taken from the web page of FASB, *"Original Pronouncement as Amended-Statement of Financial Accounting Concepts No. 2"*, 2022. Retrieved from https://fasb.org/Page/ShowPdf?path=aop_CON2.pdf&title=CON+2+%28AS+AMENDED%29&acceptedDisclaimer=true&Submit

In the figure below, the characteristics of the knowledgeable person who are important in making a decision are given, and it also guides the selection of preferable accounting policies among the available alternatives. This hierarchy of features comes in handy in making important decisions. Unless it is useful, information cannot be useful against its costs. Although there are many limitations for the features and architecture of the information in the architecture in the figure, important features are presented. The key features are that the accounting information is appropriate and reliable. If these features are missing, accounting knowledge is not useful. Relevance and reliability can be further examined by subdividing it into subcomponents. To be appropriate, information must be timely and have high predictive and/or feedback value. To be reliable, information must be representative, verifiable, and unbiased. Comparability, including consistency, relevance and reliability is a secondary feature that contributes to the usefulness of information in interaction. Two constraints are given in the table, both constraints are quantitative rather than qualitative. The information can be useful, but it is very expensive to confirm it. For information to be useful and worth acquiring, the benefit must outweigh the cost. All these properties depend on the materiality threshold, which is actually a constraint. As long as material and intangible errors do not reduce the usefulness of the information, the need for information to be reliable can be satisfied. One limit of this figure is that it distinguishes between primary and other features, but does not prioritize values between features. As a result, it is fundamental in the design of financial information and reporting architecture that financial information is in content, quality, reliability and simplicity suitable for the purpose of users, and that financial information provides a benefit to the user above the acquisition and verification cost.

Decision makers are significantly affected by the financial reports of businesses. For this reason, in order for decision makers to be affected and benefited from the financial reports of the enterprises, the reports should be designed at a healthy and optimal level in terms of content level and quality, reliability, adequacy, simplicity, compliance with user needs and expectations, functionality, clarity, inclusiveness, and contribution to predicting the future. The following recommendations are suggested to improve financial reporting (AICPA, 1994).

a) Management's plans should sustain more insight into the future, such as measuring opportunities, risks, and uncertainty.
b) It should focus more on factors for long-term value creation, including non-financial indicators of how key business processes are being performed.
c) In order to manage the business, the information reported to the top management and the information reported for the outside of the enterprise should be more appropriate.

The current legal environment does not encourage businesses to disclose future information to the public. Businesses do not broaden the scope of their future reports until they encounter undesirable legal consequences. But, if the corporations would sustain a system in the financial reporting process by focusing on the information needs of the participants, providing appropriate reporting, developing and maintaining a comprehensive business reporting model that reflects the information types that users need, developing a vision for the future business dynamics and considering the future information needs of users will be able to create the needed change.

2.3.4. Social reporting and its' emergence

The goal of financial management is to maximize shareholder value because it is acknowledged by the classical management approach that the ultimate goal of businesses is to make a profit and that the only group for which they feel responsible is the shareholders. Contrary to the classical management approach, the approach that companies exist for and have responsibilities to a wider group of stakeholders besides their shareholders has become increasingly important both in the academic environment and in business life in recent years. In this regard, businesses have begun to conduct their operations while taking into account their social and environmental impacts, and they have acknowledged that in order to achieve sustainable growth, they must operate in the best interests of all parties involved, not just the shareholders. In addition, the positive relationships between financial performance and social performance of companies in many academic studies have supported the tendency of companies to act to protect the interests of their stakeholders. In line with this purpose, companies have started to publish reports in which they explain their social performance, such as corporate social responsibility and sustainability reports, and integrated reports, in which they publish their social performance as well as financial reporting.

When viewed from the standpoint of Turkey, it is clear that social responsibility reporting has not yet advanced significantly, and businesses typically discuss their social reporting information in their annual reports. As of November 4, 2014, the "BIST Sustainability Index", which includes 15 companies in the first place, has been published by Istanbul Stock Exchange in our country.

In this part of the study, firstly, the conceptual perspective of corporate social responsibility will be explained; the theoretical background of social reporting will be discussed and evaluated. In this context, the concepts of stakeholder theory and legitimacy theory will be explained. In addition to these two theories that form the basis of social reporting, the agency theory, which is important for local governments, the main theme of the study, will also be mentioned.

2.3.4.1. Corporate social responsibility concept

Corporate social responsibility(CSR) can be described as a method of bringing together social, environmental and economic issues with the values, culture, decision-making processes, strategies and practices of businesses in a transparent and responsible manner (Indusrty Canada, 2022).

Although the concept of CSR has been discussed in the literature for many years, the importance given to CSR has begun to take shape. The experienced company scandals have deeply shaken the trust of consumers in businesses, as a result, interest in business ethics and corporate governance has increased again; the concept of CSR has come to the fore.

Since the early 1980s, it has been argued that companies should be evaluated not only with their economic activities but also with their social activities (Lantos, 2001). The point that the concept of CSR has reached today is not limited to the responsibilities of companies towards their stakeholders, but also includes the dimensions of combining all the responsibilities undertaken with all the processes in

the business and measuring, auditing and reporting the effects created in this way. The benefits of realizing all these things with correct and ethical practices can positively affect the economic benefit (Balabanis, Hugh, & Jonathan, 1998). For these reasons, today's businesses have begun to attach great importance to the concept of CSR. The fact that businesses have seen that they will gain serious economic gains because of the concept of CSR and the importance given to it tends to increase.

2.3.4.2. Corporate social responsibility definitions

While in the past the role of businesses in the society was limited to activities such as creating employment, obeying the law and paying taxes, today the power of the society against businesses has increased, especially with the effect of globalization and competition, and its expectations from businesses have also changed (Sarıkaya, 2009). The classical management approach considered corporate social responsibility only in terms of shareholders, and the advocates of the view stated that companies only have a responsibility to increase the wealth of the shareholders, while social responsibilities should be fulfilled by the state (Lo & Her-Juin, 2007). However, this view has left its place, together with the concept of stakeholder, to the idea that businesses have responsibilities not only to their shareholders but also to the whole society.

CSR was conceptually defined for the first time in H. Bowen's book "Social Responsibilities of Businessmen" published in 1953. Bowen mentioned that businessmen should be interested in social responsibility activities in parallel with the goals and values of the society (Bowen, 1953). While Bowen was talking about the

concept of CSR, he mentioned the responsibilities of businessmen, not institutions, in his definition.

The United Nations Conference on Trade and Development (UNCTAD) has addressed CSR in the context of how businesses relate to the needs and goals of a society. According to UNCTAD's perspective on the concept of CSR: "All social stakeholders expect certain roles and functions to be fulfilled in order to be able to change time with their social changes." Businesses, mainly multinational enterprises; with the change in the roles they play in society, expectations from businesses have also changed. For this reason, discussions about CSR standards and practices of multinational enterprises have an important place in global community development studies (UNCTAD, 2022).

The advisory group on CSR of the International Organization for Standardization (ISO) considers CSR as "an approach in which businesses draw attention to economic, social and environmental problems within a framework that will benefit people and society". ISO also underlined that issues such as occupational health and safety, workplace and worker problems, injustice in the workplace, human rights, environmental problems, market and consumer problems should be added to the scope of CSR (Commission of the European Communities, 2022).

The World Sustainability Council has defined CSR as businesses and activities that exceed legal criteria and standards. According to this definition, CSR refers to attitudes and behaviors above legal and organizational requirements. For example, a company's avoidance of discrimination against female employees, as required by law,

cannot be considered within the corporate social responsibility concept. In addition, the Council has listed the areas that can act on laws as follows (Ersöz, 2007):

a) Corporate governance and ethics

b) Health and safety

c) Environmental responsibilities

d) Human rights including basic Labor standards

e) Human resources management

f) Social participation, development and investment

g) Respect and integration with local people

h) Corporate philanthropy and employee volunteering

i) Adherence to the principles of customer satisfaction and fair competition

j) Measures against bribery and corruption

k) Accountability, transparency and performance reporting

l) Relations with national and international suppliers

Carroll described corporate social responsibility (CSR) as "the function of contributing to a better society and cleaner environment on a voluntary basis beyond economic activities" (Carroll, 1999). In the definition, it is emphasized that social responsibility is based on voluntariness. In addition, Carroll discussed CSR in four dimensions and evaluated economic, legal and ethical responsibilities within the scope of CSR, and stated that companies also have responsibilities to engage in philanthropic activities beyond these responsibilities (Carroll, 1979). Lantos Mohr, Webb and Haris (2001)defined CSR as the commitment of companies to eliminate or minimize their harmful effects on society and maximize beneficial benefits in the long run. In addition, Lantos divided the social responsibility dimensions expressed by

Carroll into two as mandatory responsibilities and voluntary responsibilities. Economic, legal and ethical responsibilities mandatory responsibilities; philanthropic responsibilities are defined as voluntary responsibilities (Lantos, 2001). Mc Williams and Siegel stated that CSR consists of the sum of legal obligations, company interests, and social benefits. In the same study, it is stated that activities such as being fair, being legal, being profitable are not corporate social responsibility, but are the main obligations of companies, while CSR refers to extra efforts or contributions made for the society beyond these obligations (McWilliams & Siegel, 2001).

There is no single definition of corporate social responsibility that is accepted by all significant corporations and academic research. When CSR first emerged, it was defined only as the responsibility of businessmen to the society, but later it began to be perceived as the social responsibility of institutions. With the development of the stakeholder concept, responsibilities towards the shareholders in the classical method understanding have expanded, but the areas related to the social responsibilities of the institutions have not been defined precisely.

2.3.4.3. Social reporting and its theoretical infrastructure

Social reporting is the disclosure of financial or non-financial information that falls under the responsibility of businesses in a separate report or within the scope of annual reports. According to Ullman, social explanations are the use of the relationship between stakeholders and different interest groups in strategic management. Therefore, Ullman (1985) considered social explanations in his strategic management approach and saw it as a tool. According to Suchman (1995), CSR in

general and CSR reports in particular are based on stakeholder and legitimacy theory (Selvi & Özbay, 2013).

Social reporting began to spread in the 1960s, as global institutions grew in size and power (Lantos, 2001). In the period from the common use of the topic of social reporting today, it has been realized that businesses are seeking more social power and economic profitability with the increasing social awareness. Accordingly, organizations have become institutions that focus on more than just their economic interests on social interests, acting on the idea that their long-term existence depends on their corporate social responsibility behavior. When the concept of social reporting is viewed from this perspective of organizations, it is concluded that it is handled with different approaches. In this respect, it is useful to explain the concepts of stakeholder theory, legitimacy theory, agency theory and sustainability.

2.3.4.3.1. Stakeholder theory

According to the Turkish Language Association, a stakeholder is a shareholder, a partnership, or a person who owns a portion of a piece of property (Türk Dil Kurumu, 2022). The concept of denominator is a concept that is used in the context of strategic management or CSR.

The stakeholder theory was put forward against the shareholder theory, which was shaped around the views of Milton Friedman. According to Milton Friedman (Friedman, 1970), the aim of the firm is to maximize the financial returns to the

shareholders. From his point of view, the ownership of the firm belongs to the shareholders and has no other purpose than for the benefit of the shareholders.

It is the only social responsibility of the company to use resources effectively and achieve maximum profit. Friedman (Friedman M. , 1962) states that it is in the hands of shareholders, not businesses, to act according to social goals, and that shareholders can contribute from their own savings if necessary for social benefit. On the contrary, the stakeholder theory has not limited the responsibilities of the firm only to the shareholders, but has also placed the internal and external groups with which it interacts in its area of responsibility.

It can be better grasp the stakeholder theory a better understanding of the stakeholders in the internal and external environments of the businesses. When the internal environment of the companies is mentioned, it should be understood that the managers, owners and employees of the companies and the organizational culture are mentioned. While the operating environment includes the institutions and people that the company interacts with in the sector in which it operates, the external environment includes the area outside the company's internal environment and operating environment such as the economic environment, international conditions, technological environment, cultural environment, demographic environment, external environment.

It is possible to gather the stakeholders under two main groups as internal stakeholders and external stakeholders. While the founding partners, shareholders, employees and managers constitute the internal stakeholders, the society, government,

customers, suppliers, competitors and other groups constitute the external stakeholders. As a concept, CSR expresses the responsibility towards the stakeholders in both internal and external environment. Responsibilities of the institution (Aktan, 2007):

a) Responsibility towards employees,

b) Responsibility towards customers,

c) Liability to shareholders,

d) Responsibility towards nature and environment,

e) Responsibility to Legal Authorities,

f) Liability to suppliers

g) Liability to competitors,

h) Responsibility towards society,

i) Responsibility towards managers.

Today, it is seen that new stakeholders have joined the stakeholder group of companies. Examples of these stakeholders are the media, non-governmental organizations, environmental groups, banks and financial institutions. In general, even if shareholders, investors, employees, suppliers and customers are considered as stakeholders, it would be more certain to consider all persons or institutions that are directly or indirectly affected by a firm's activities as stakeholders.

When the academic literature is examined, it becomes clear that the Stanford Research Institute's research was the one to first present the notion of stakeholders, which is defined as the groups in which the existence of in the absence of the stakeholders' support, the organization would fail. (Sarıkaya, 2009). Subsequently, the

"Stakeholder Project" initiated at the Wharton School in 1977 focused on the implications of the stakeholder concept as a management theory, strategic and analytical framework (Yamak, 2007).

Ansoff (1965), who made an important contribution to the strategy literature in the 1960s and 1970s, defines objectives as the decision rules that enable management to manage and measure the company performance in achieving the objectives, while he defines responsibilities as the obligations undertaken by the firms to discharge, not as a part of the internal direction and control mechanism of the firm.

Freeman, who made substantial contributions to the concept of CSR, acknowledged that senior managers have responsibilities, but stated that the goal of satisfying the needs and wishes of the people for whom the companies are responsible is not the same thing (Friedman & Miles, 2006).

2.3.4.3.2. Legitimacy theory

In general, we can define the theory of legitimacy as the legitimacy of businesses while performing their activities, that is, meeting the expectations of the society. According to Suchman, a consensus on legitimacy could not be established among studies describing organizations (Suchman, 1995). Ashforth and Gibbs, on the other hand, stated that they see it as a source whose legitimacy is problematic (Ashforth & Barrie, 1990). Although many authors and researchers include the theory of legitimacy in their academic studies, they have not fully addressed the definition of this concept.

While Brown defined the legitimacy concept as acceptability and approval, Meyer and Rowan expressed it as "unthinkable", and Dowling and Pfeffer as conformity and conformity (Brown A. D., 1997). Suchman, on the other hand, defined legitimacy as "desired, appropriate and acceptable action in line with existing economic existence, norms, values, beliefs and explanations structured by social systems" (Suchman, 1995). One of the first authors to address the idea of legitimacy was Parsons, who stressed that, in line with what the social system expects, legitimacy should essentially overlap with the norms and values of the system. (Parson, 1956).

The concept of legitimacy covers not only how people understand organizations, but also how they understand businesses. In other words, the concept of legitimacy is a concept that describes what the organization does and how (Kalemci & Tüzün , 2008).

Meyer and Scott, on the other hand, defined the idea of legitimacy as a concept that ensures the harmony of the organization with the cultural environment and stated that organizational legitimacy explains the existence of organizations with established cultural characteristics (Meyer & Richard , 1986). In this perspective, which is expressed as the new institutionalist approach, there are also effects such as technology, practices and professions that affect the formal structures of organizations. These effects are institutionalized in society. In this way, companies try to gain legitimacy, which is important for their image, rather than focusing only on profitability calculations (Meyer & Richard , 1986)

It is a frequently debated issue in academic studies whether organizations work only to maintain their existence or to be accepted by the society. Some organizations may find active and passive approval by the society sufficient. In this respect, the concept of legitimacy can be considered strategically or institutionally from the point of view of companies (Suchman, 1995). Those who evaluate the concept of legitimacy strategically in academic studies have seen social support as a tool because they look at it from an administrative point of view. On the other hand, as stated before, in the institutionalist tradition, its legitimacy is considered among the basic building blocks that ensure the continuity of the organization.

2.3.4.3.3. Agency theory

Agency theory examines the issues and disagreements brought on by the division of ownership and control. (Jensen & Meckling, 1976). One of the reasons for the representation problem between the attorneys and the principals stems from the information asymmetry. In other words, insider proxies (managers) have knowledge that outside principals (partners) do not have, and they use this for their own benefit. This situation creates conflict between the two sides. The more comprehensive the public disclosure, the less this conflict will be. Therefore, public disclosure contributes to alleviating the representation problem by reducing the information asymmetry. Institutional reports are the most important tools of public disclosure. Apart from this, businesses also inform their stakeholders through material disclosures and press releases.

Agency theory is the theory that best bases information sharing in local governments. The manager elected by the votes received and the sub-managers appointed by him/her should explain the information they have in the most accurate way. The results of this study will be explained within the scope of agency theory.

2.3.5. Sustainability and corporate sustainability

The etymological root of the word sustainability is based on the Latin word "sustenere". It originated in these fields and is conceptually based on forestry, fisheries, and soil sciences. At the end of the 18th century, German miner Carlowitz coined the phrase to describe how the poles used in the mining industry were employed to improve the productivity of the timber plantations and have a sustainable quality. (Becker, 1997).

Today, it is seen that many businesses use the terms corporate social responsibility and sustainability interchangeably. However, over time, the term sustainability seems to be more popular than the term corporate social responsibility. While the concept of corporate social responsibility takes its roots from the social responsibility approaches of businesses, the concept of sustainability raised in the first half of the 20th century with the awareness of the environment. The first international step towards the development of the idea of sustainability and environmental development was made by establishing equality in the use of resources and the relationship between economic and social development and the environment at the United Nations Conference on the Human Environment, which was held in Stockholm in 1972. It has been stated that all nations are responsible for establishing

an appropriate environmental policy within the confines of their own jurisdiction and borders. These nations are also expected to help less developed nations fulfill their obligations, and there should be established international cooperation in this area.

The concept of sustainability appears in many areas. It is used with many concepts such as sustainable development, sustainable growth, sustainability of the enterprise. According to Gladwin's (1995) definition, sustainability is social, socio-cultural, scientific, natural, etc. and is a participatory process that ensures the prudent use of all resources and creates a social outlook to respect it (Schaefer, 2004).

The Brundtland Report, published by the World Commission on Environment and Development (WCED) in 1987, gave the first definition of sustainable development as; "fulfilling the requirements of the present without compromising the ability of future generations to satisfy their own needs." (United Nations, 2022).

Gladwin summarized several definitions that deal with biological/ecological, economic and social systems and processes, also known as the three basic concepts of sustainable development (Schaefer, 2004). In addition to these, it could be define as; is positive changes without weakening the environmental and social systems on which we depend. It improves the quality of life of people within the limits of the life support capacity of the world. Sustainable development occurs when environmental quality, economic wealth and social justice are achieved together at the same time. Businesses aiming at sustainability should fulfill all three of these, not just the financial dimension. It is the development that preserves the natural and production capital used in generating income while ensuring the continuity of a certain income

level and is the rules that guide people in sharing the world. People should not take from nature more than nature can replenish.

Since businesses are the economic system's primary producers, they are essential to any discussion of sustainable development. Companies play an important role not only in creating economic value, but also in eliminating the environmental and social problems they cause due to their activities (Sarıkaya & Kara, 2007). In this respect, it is necessary to realize institutional sustainability in order to realize sustainable development.

2.3.5.1. Corporate sustainability

Today, businesses act by considering social and environmental issues as well as economic concerns while continuing their activities. The main reason for this is undoubtedly the pressure created by the society that can easily access all kinds of information with the developing information technologies and is becoming increasingly conscious. The expectations of the society, which has become even more conscious in the information age we live in, have also increased and the application of the sustainability concept in businesses has become a necessity.

The ability to meet the needs of all stakeholders of the enterprise without compromising their ability to meet the needs of future stakeholders is the definition of corporate sustainability, which primarily refers to the application of the concept of sustainable development at the organizational level. (Dyllick & Hockerts, 2002). From an institutional point of view, sustainability is the responsible behavior of the

enterprises to the environment in all production processes and during the accounting of these processes (Alpagut, 2010). While corporate sustainability recognizes the importance of the growth and profitability of the business, it also emphasizes social goals such as environmental protection, contributing to the country's economy, social rights and justice (Wilson, 2003).

Today, it is not enough for businesses that make an effort knowing their responsibilities only to create economic value. In addition, they need to minimize the negative externalities that occur during their activities (Hahn & Scheermesser, 2006). In order to ensure corporate sustainability, businesses should focus on long-term goals rather than short-term gains (Dyllick & Hockerts, 2002). Although the costs incurred by the enterprises in order to eliminate the damage caused by the production processes to the environment seem to be a factor that reduces the profitability for the enterprises in the short term, they bring profit in the long run and ensure the continuity of the enterprise.

It is expected that bankruptcies, employment problems and most importantly poverty will decrease significantly when corporate sustainability becomes an institutional value as an integrated part of business strategies for businesses (Signitzer & Prexl, 2008). Because businesses are at the focus sustainable development (Çalışkan , 2012). The issues that businesses should pay attention to in order to ensure corporate sustainability can be listed as follows (Özkol, Çelik, & Gönen, 2005):

- To be sensitive to laws, environment and social values,

-Open information and communication systems, giving importance to the protection of environmental and social values from the production stage to after-sales services,

- Carefully applying the principles of transparency and accountability,

- Being supportive in solving local and national problems,

-Exhibiting equal behavior in corporate internal and external relations

While in the past it was accepted that macroeconomic targets and practices were within the responsibility of governments, in today's world, it has been accepted that the way to reach macro targets is to realize the micro targets of the enterprises due to the increase in the share of resources used by businesses. After the development of the free market understanding, states have withdrawn from supplying goods and services directly in order to encourage national competition and attract foreign investment and have been replaced by companies. As a result, companies have come to a stronger position than governments in many parts of the world. With this effect, the concept of sustainability came into play, and the public began to put pressure on companies to behave more responsibly. For-profit and non-governmental organizations, on the other hand, emerged as a natural reaction to fill the gaps left by the government. In this context, the distribution of duties in the triangle of government-firm-non-governmental organizations started to focus on companies and non-governmental organizations.

Without institutions, it is impossible to discuss sustainable development since institutions stand in for the productive resources of the economy. Institutions are crucial for both generating economic value and solving social and environmental

issues that are brought on by their operations. In this regard, realizing institutional sustainability is essential to creating sustainable growth.

2.3.5.2. Elements of corporate sustainability

Businesses should concentrate on addressing issues connected to economic, ecological, and social welfare by focusing on long-term goals in order to ensure their sustainability. However, with the backing of sustainable development from the community and the government, business sustainability can be fully achieved. Because merely the businesses' efforts will be insufficient in this regard. Businesses should also manage their relationships with all stakeholders and be accountable by adhering to the notion of social equality. They should continue their operations with an awareness of their environmental duties while guaranteeing their economic growth. In Fgure 2 elements of corporate sustainability is shown below (Wilson, 2003)

Figure 2 *Elements of Corporate Sustainability*

Note. This figure is taken from *"Corporate Sustainability: What is it and Where Does it Come From?"* by M. Wilson, Ivey Business Journal, 2003, p.4.

As can be seen in the figure, the factors to be considered as a whole in order to achieve success in corporate sustainability can be listed as follows:

- Corporate Social Responsibility

- Institutional Stakeholder Theory

- Corporate Accountability

2.4.Theoretical Foundation of Integrated Reporting and Improvement Process

Although there are opinions that argue that the foundations of integrated reporting were laid in 1999, the term integrated reporting was first used in the Connected Reporting Framework published in 2007 and the King II Code published

in 2009 (Yüksel, 2017). In the A4S forum held in 2009, it was decided to establish the International Integrated Reporting Council, and the International Integrated Reporting Council, which was established in 2010, published the International Integrated Reporting Framework in 2013.

Corporate scandals, environmental disasters, and loss of shareholder value as a result of safety and human rights violations in the not-too-distant past have demonstrated that sustainability or non-financial issues can have a potentially devastating impact on net profit. Using only financial information such as sales, gross profit, net profit, financial condition of the business in the decisions to be taken regarding the business may cause a wrong decision to be taken. Both business owners and managers, and other stakeholder groups related to the business should pay attention to the performance of the business in environmental, social and managerial issues, namely its non-financial performance, as well as the financial performance of the business. Sustainability, business strategy, management processes and financial performance are seen as inseparable parts today.

Traditional financial and social reporting receives criticism that companies present their short and past performances, that the relationship between financial information and social studies is not disclosed, and that they do not provide information about the current and future status of the company. The concept of integrated reporting emerged in order to resolve these criticisms of the current reporting system. The purpose of integrated reporting is to explore how organizations manage their important financial and social information and to learn about the interdependence between this information. Integrated reporting provides forward-

looking information and focuses on the firm's current performance as well as short-term long-term performance and specifies how resource management can be used to create value (Eccles, 2011).

According to another definition of integrated reporting, it reports financial reports and sustainability reports, the purpose of which is to transfer corporate information, as one. In terms of financial reporting, it is defined as the contracts made between the company's board of directors, managers, employees, suppliers and other actors whose purpose is profit maximization (Michael & Meckling, 1979). In terms of sustainability reporting, it is defined in different ways, such as creating value by coming together with independent stakeholders (Alejo, 2010) or a production team that creates value not only for its shareholders (Blair & Stout, 1999), but for the whole stakeholder group.

In this part of the study, integrated reporting and the frameworks that shape the integrated report will be examined, and the steps to be followed in the preparation process of the integrated report will be tried to be revealed.

2.4.1. Components of integrated reporting

In the most basic sense, Integrated Reporting is the idea of reporting financial information and social information. Integrated Reporting is more than a report summarizing the entire performance of the firm. It aims to report financial and socially important information in one place. Ideally, it demonstrates the

interrelationship of important financial and social information (Eccles & Saltzma, 2011).

A concise communication about how an organization's strategy, governance, performance, and prospects, in the context of its external environment, contribute to the creation, preservation, or erosion of value over the short, medium, and long terms, according to the International Integrated Reporting Council (IIRC), constitutes an integrated report. (IIRC, 2021). Integrated reporting aims to (IIRC, 2021):

- Enhance the quality of information accessible to financial capital providers to enable a more effective and efficient distribution of resources.
- Encourage the adoption of a more unified and effective corporate reporting strategy that integrates various reporting strands and conveys all relevant aspects that have an impact on an organization's capacity to generate value over time.
- Promote awareness of the interdependencies among the diverse base of capitals (financial, manufactured, intellectual, human, social, and relationship capitals) and improve accountability and stewardship for them.
- Encourage integrated ways of thinking, making decisions, and acting that are centered on generating value throughout the short, medium, and long term.

There are two reasons for companies to publish integrated reporting. One of them is that companies want to show that they take sustainability components seriously. In this way, companies will be able to create a viable sustainability strategy that will evaluate risks and opportunities to create a sustainable community. The

second reason is the desire to give a message to all stakeholders with a single reporting, together with integrated reporting (Eccles & Krzus, 2010).

The key question here is should companies provide their information in a single report or should they provide other appropriate reports? Already, companies include their financial and management information in their annual activity reports, and their environmental and social information in their sustainability reports. However, in many respects it is difficult to establish the link between the two. The purpose of integrated reporting is to bring these report formats together.

It is a mystery that sustainability reports and annual reports are read or intended to be read by readers. Some stakeholders complain that it is too long, not channeled into important areas and is difficult to read, while others complain that there is not enough information necessary for them. On the other hand, sustainability reports are only developing recently and have been included in corporate reporting for more than 20 years. The GRI sustainability principles, which are used in the broadest sense as sustainability reporting principles, emerged in 2000. However, financial reporting has been known and practiced for about 150 years. Bringing these two concepts together can create weak ties (Eccles & Saltzma, 2011).

Considering the traditional language of financial and social reporting together with the purposes stated by the Integrated Reporting Committee, it is seen that the integrated reporting framework is built on the concept of capital management. Capital management has been defined as maintaining and expanding many capitals and contributing to the firm's long-term value creation.

2.4.2. Integrated reporting and frameworks shaping the integrated report

Integrated reporting and integrated reporting concepts are relatively new concepts in terms of corporate reporting, both in the literature and in practice. Organizations related to integrated reporting have prepared and published the frameworks that form the basis of the International Integrated Reporting Framework, which guides the preparation of integrated reporting and integrated report.

In the Connected Reporting Framework published by A4S in 2007, and in King III published by IoDSA in September 2009, it was stated that businesses should reflect the relationship between their business strategies and their financial and non-financial performances, and the term integrated reporting was included. Finally, the International Integrated Reporting Framework was published by the IIRC in December 2013.

In the next section, Connected Reporting Framework, King II, King IV, International Integrated Reporting Framework will be examined.

2.4.2.1. Connected reporting framework

The linked report aims to provide a new approach to corporate reporting to respond to the lack, length, and complexity of many organizations' annual reports and accounts and a growing discontent among both their preparers and users (Yüksel, 2017).

The linked report is prepared in line with the Connected Reporting Framework (CRF) principles. “The Connected Reporting Framework seeks to explain how to present organizational performance as connected to reflect the organization's strategy and management style. CRF is a reporting model that presents key sustainability information alongside traditional financial information to provide a balanced view of the organization's overall performance (Yüksel, 2017).

The basic principles of the CRF are that the business strategy should be presented in connection with sustainability issues and financial performance to provide an accurate and complete view of business activities, consistency in reporting, fairness and compliance in reporting so that business activities and performance results can be compared with past periods and other businesses. be treated is indicated.

Today, sustainability issues such as the relations of businesses with their customers, suppliers, employees, society and other stakeholders, the impact of business activities on the environment are gaining importance. Environmental and social issues from stakeholders are becoming increasingly important. Stakeholders expect the business to be more sensitive to environmental and social issues. In order to ensure their sustainability and be successful, businesses have to consider sustainability issues while creating their business strategy. On the other hand, the financial statements that businesses have to prepare can be complex, long and difficult to understand by both the preparers and the users. CRF aims to reveal how sustainability issues are interconnected in business strategy, and to provide a more

holistic and understandable view of business performance by presenting financial and non-financial information in a single report.

Connected Reporting should have seven key features: strategic relevance, comparability, balance, value chain impact, flexible development, behavioral change, beyond play. In a linked report (Yüksel, 2017);

- Sustainability concerns should be integrated into the organization's entire strategy.
- The linked report should allow comparisons by years and with other businesses,
- Give a balanced account of the company's effects on the environment and society.
- Clearly reveal the impact of the business on suppliers and customers,
- It should allow each business to report in line with the sector and other conditions,
- Ensuring that the sustainability strategy and activities of the enterprise are adopted and supported by the employees through affiliated reporting studies,
- With linked reporting, the business should increase and maintain its competitive advantage.

2.4.2.2. King III code

IoDSA, a non-profit company representing managers, professionals and business leaders in South Africa, was founded in 1960 as a branch of the London Institute of Managers. The first King Report (King I) was published in 1994 as a result of the work of the King Committee formed under the chairmanship of Mervyn King. In 2002, new codes created with the inclusion of sustainability issues in King I,

which includes principles regarding corporate governance, were published as King II Code (Institute of Directors South Africa, 2022).

Developments all over the world made it necessary to make some arrangements in Kin II, and King III was published in 2009. He stated that the IoDSA King III Code is based on leadership, sustainability and corporate citizenship issues. Businesses are expected to be sensitive to sustainability issues and to carry out their activities as a legal entity independent of their owners or owners.

This expectation has been subject to regulation as a requirement for listed businesses in South Africa. “In February 2010, the 2009 King Code principles of Management (King III) recommending the integrated report were accepted as a requirement to be listed on the Johannesburg Stock Exchange and listed businesses had to comply or explain why if they did not comply with the King III principles. For the listed businesses of South Africa, Johannesburg Stock Exchange', it has brought about the problem of preparing an integrated report or explaining the reason if it is not prepared as of March 1, 2010. South Africa is one of the first countries to study integrated reporting, making it an early adopter of the practice (Yüksel, 2017).

In King III, Chapter 9, it is stated that reporting should be transparent enough to allow stakeholders to see the business as a whole, and should clearly reveal the current status and future expectations of the business (IoDSA, 2012). According to the approach taken in King III, the form of integrated reporting is less important than the underlying information. The emphasis is on the primacy of the essence. While it can be a single integrated report, the annual financial statements are related to

sustainability, management, environment, compensation, governance and corporate citizenship, etc. It can be in the form of a package of reports containing integrated information and consisting of topics chosen by the company (IoDSA, 2012).

2.4.2.3. King IV code

Reasons such as financial instability and crises around the world, population growth, technological developments, and climate change have led to the differentiation of people's expectations from the business. While people demand that their wishes and expectations be met, on the other hand, they expect businesses to reduce the negative effects on the environment and society and create positive effects. A proof of these expectations is that the concept of sustainable development has gained such importance that it is on the agenda of the whole world today. Today, investors consider non-financial information as well as financial information while making investment decisions. All these requests and expectations must be met in the execution and reporting of business activities.

Seeing the necessity of this change in business management and activities, some arrangements were made in corporate governance principles by the IoDSA-King Committee, and as a result of the work done, "King IV Report on Corporate Governance for South Africa 2016" was published in November 2016 (Institute of Directors Southern Africa, 2016).

King IV aims to support the management structure where the concepts of ethics and effectiveness, transparent reporting for all stakeholders are important, as

well as structure and processes. For this purpose, the basic philosophy of King IV, which includes the principles of governance, is (Institute of Directors Southern Africa, 2016):

- Sustainable development,
- Integrated thinking,
- Organization as a part of society,
- Stakeholder inclusiveness,
- Corporate citizenship,
-Explained as Integrated Reporting.

King IV refers to the “triple context” or the combined context of the society, economy, and environment in which the organization operates. The reference in King IV to “context” is in the singular as these three dimensions are intertwined and should be viewed as an integrated whole (Institute of Directors Southern Africa, 2016). The types of capital that the organization utilizes or affects represent the triple context in a more detailed way. According to the "six capitals" paradigm, capitals include financial, natural, manufactured, intellectual, human, social and relationship. (Institute of Directors Southern Africa, 2016).

To clarify the stance of the integrated report in relation to other reports, King IV is interested in the integrated report as one of many reports that can be published by the organization as it is necessary because it complies with legal requirements and/or to meet certain information needs of key stakeholders (Institute of Directors Southern Africa, 2016).

2.4.3. International integrated reporting framework

The advisory draft "Consultation Draft of the International <IR> Framework" was published by the IIRC in April 2013 to obtain comment on the integrated reporting framework. Until 15 July 2013, responses were received from individual and institutional participants, including report makers, professional organizations, consultants, investors, non-governmental organizations, auditors, academics, and regulators, to the draft consultation draft. IIRC, as a result of its evaluations on the data obtained from the participants, made regulations regarding the issues raised by the participants. IIRC published its studies and the arrangements it made in the Draft Framework to form the basis of the International Integrated Reporting Framework with the "Basis for Conclusions <IR> Framework" (IIRC, 2013) in December 2013.

The International Integrated Reporting Framework consists of two main parts: Introduction and Integrated Reporting. While the Introduction Section explains the use of the framework and the basic concepts used in the integrated report, the Integrated Report Section consists of content items that explain the guidelines that guide the preparation of the report and the items that should be included in the report.

The International Integrated Reporting Framework, which guides the preparation of the integrated report, has adopted a principles-based approach. In preparing an integrated report, each organization should determine for itself which issues are important, what issues it will explain to what extent in order to maintain its competitive advantage, its value creation process and performance indicators according to its own circumstances.

The integrated report, which is intended to demonstrate the business's value creation process and the relationship between financial and non-financial information, may be generated as a stand-alone report or as a component of other corporate reports, according to the Framework. In order to ensure brevity and conciseness, it is stated in the Framework that details of information that is outside of the factors affecting the value creation process, but that can be linked to the integrated report can be given in the form of additional documents or as a web link.

Responsibilities for integrated reporting are set out in Principle 1.20 of the Framework. According to the Framework, the entire responsibility for the preparation and submission of the integrated report rests with the business management. The Framework defined management's responsibility in preparing and presenting the integrated report as "joint responsibility" and clarified that a statement should be included in the integrated report regarding joint responsibility. If such a statement is not included, the role of corporate governance officers in preparing and presenting the integrated report, their work on joint action, the conclusion of these studies and the time required for joint action should be reported in the integrated report. The time required for this should not be later than the organization's third integrated report referring to this Framework (IIRC, 2022).

In the following sections, the Basic Concepts, Guiding Principles and Content Elements that should be included in the International Integrated Reporting Framework will be examined.

2.4.3.1. Basic concepts

Basic concepts are the concepts in the International Integrated Reporting Framework that form the basis of information and integrated report. The integrated report tries to present the value creation process of an organization in the short, medium and long term, taking into account the capital elements and external environment factors that it uses and affects in creating value. For this reason, value creation, capital elements and the value creation process are discussed within the scope of Key Concepts in the Framework.

a. Value Creation

The concepts of value and value creation are explained in the working paper "Background Papers: Value Creation" published by the IIRC in July 2013 to assist understanding and implementation of the International Integrated Reporting Framework. In this study, the meaning of creating value has been tried to be explained with 10 themes. These are (IIRC, 2013):

- Value creation occurs in a setting.
- While financial value is important, it is not sufficient to evaluate value creation.
- Both tangible and intangible assets contribute to value creation.
- Both private and public/common resources are used to create value.
- Value is produced for a company and for other people.
- Value is produced through the interconnection of a variety of components.
- Value creation shows up in results.

- Innovation is essential for creating value.
- Values influence how and what kind of value is produced.
- Value creation metrics are changing.

In this context, “value” for integrated reporting is created through the business model that uses capital elements as inputs, transforms them through business activities and interaction, to produce outputs and results that create or lose value for the business, its stakeholders, society and the environment in the short, medium and long term (IIRC, 2013).

In the International Integrated Reporting Framework published in December 2013, principles related to value creation from Principle 2.4 to Principle 2.9 are included. "Value Creation" is the process that results in an organization's activities and outputs increasing, decreasing, or transforming the capitals (IIRC, 2013). In value creation, positive or negative changes occur in capital elements as a result of business activities. According to the Framework, the mobility, increase or decrease between capital elements is characterized as value creation. With or as a result of business activities, there is value creation for the business itself, the parties providing financial capital, other stakeholders and the society as a whole.

Increases or decreases in capital elements in the value creation process have positive or negative effects on stakeholders and society. These effects are named as externalities in the Framework and it is stated that parties providing financial capital may need information about externality in decision making. Therefore, activities,

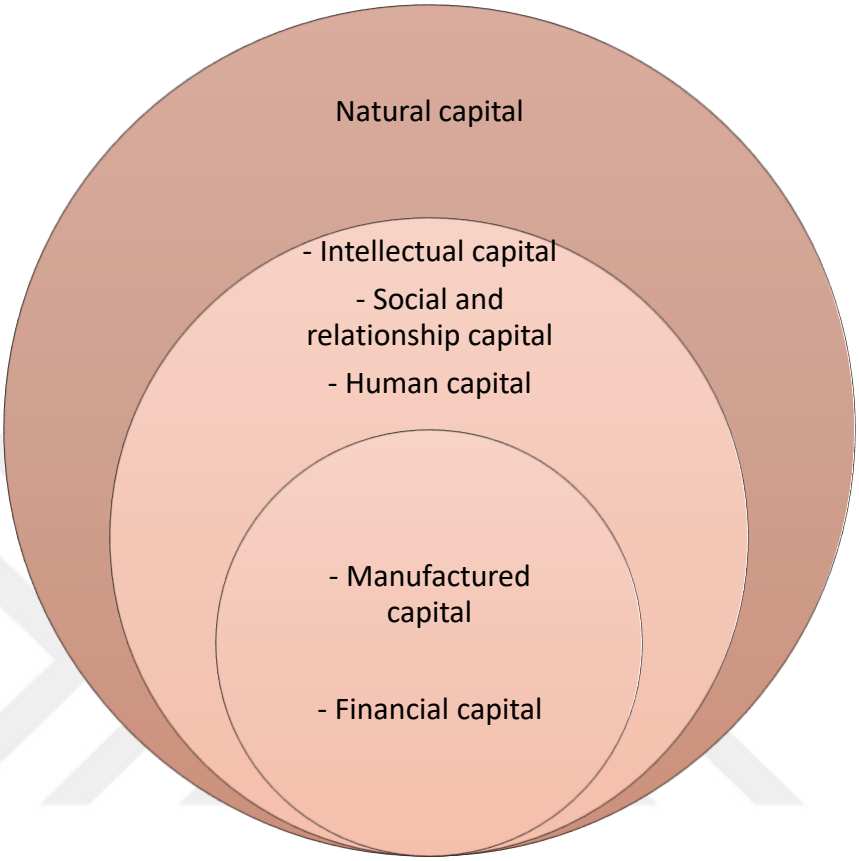
relationships and interactions that are important for value creation should be included in the integrated report.

b. Capital Items

Different types of capital are necessary for all organizations to succeed. Capitals are a stock of values that change in value as a function of an organization's operations and outcomes. For instance, an organization's financial capital rises when it produces a profit, while its human capital rises when workers receive greater training. (IIRC, 2013).

In the Integrated Reporting draft proposal, capitals are defined by IIRC in six categories. These capitals are summarized in Figure 3. These capitals form the basis for the organization to create value. As seen in Figure 3, not all capitals are completely independent from each other. While businesses as a whole should focus on all elements of capital, some capitals may be unimportant to businesses (IIRC, 2022).

Figure 3 *Capital Elements of Integrated Reporting*



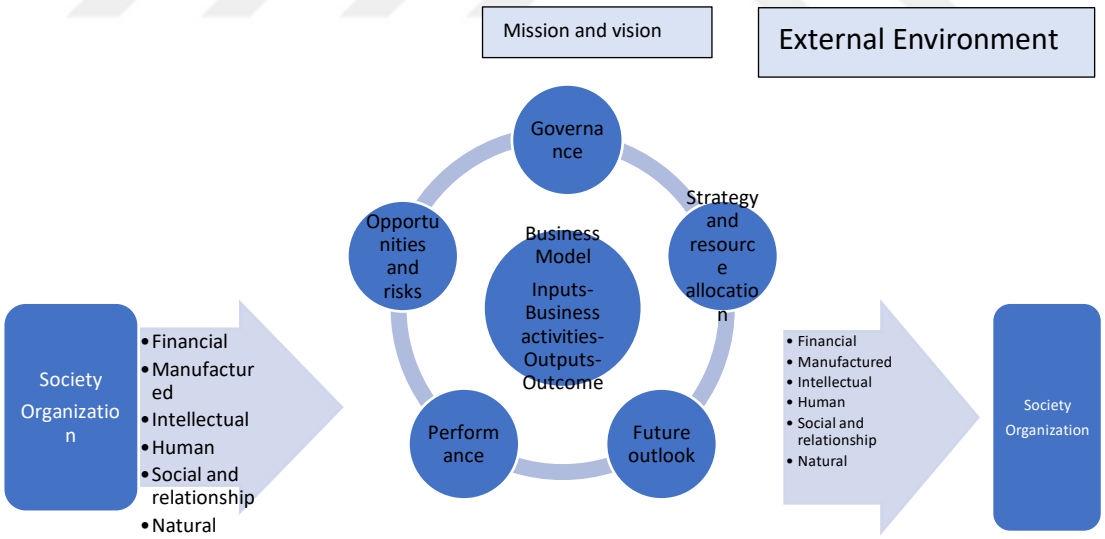
Note. This figure is taken from the web page document "Capitals Background Paper for Integrated Reporting" published by IIRC, 2022. Retrieved from: https://www.integratedreporting.org/wp-content/uploads/2013/03/IR-Background-Paper-Capitals.pdf.

This diagram is one way to depict the capitals. Organizations most frequently report on financial and manufactured capitals. <IR> adopts a larger perspective by taking into account human, natural, and social capitals as well as intellectual, social, and relational capital. (IIRC, 2022).

The general stock of capitals is not fixed over time. As the capitals increase, decrease or transform, there is a constant flow between and within them. For example,

an organization improves its human capital by training its employees, while the associated training costs reduce its financial capital. In terms of effect, financial capital has been transformed into human capital (IIRC, 2022). In the framework of the draft integrated reporting, it is stated that organizations use various capital items as inputs and transform them into outputs (product, service, by-product and waste) through their business activities. The ability of the organization to adapt to changes in the business model, such as changes in the availability, quality, and affordability of inputs, has been mentioned as having an impact on the organization's long-term viability. The value creation processes and business model of the organization are represented in Figure 4 (IIRC, 2013).

Figure 4 *The full picture of a company's value generation process, demonstrating how capitals and content elements interact with the company's external environment.*



Note. This figure is taken from the report "*Consultation Draft of the International <IR> Framework"* prepared by IIRC, 2013.

In the following sections, human capital, social and relational capital, natural capital, manufactured capital, financial capital and intellectual capital, which are the capitals of integrated reporting, are explained.

Human Capital:

The knowledge, abilities, and experience that employees possess are represented by human capital, which is one of the capital components of integrated reporting. Human capital is not an asset owned by the business, the business is just leasing it. Different research have used different definitions of human capital.

The term "human capital" has been used frequently by social theorists, economists, and management theorists. Prior to becoming a scientific theory, the idea of human capital was initially employed by classical economics in 1776 (Fitzsimons, 2015). After its acceptance as theory, Schultz (1961) acknowledged that in the modern economy, human capital is a key driver of national economic progress. As the academic development and acceptance of human capital, many researchers stated that human capital makes a great contribution to social development and freedom.

According to academic literature, the idea of human capital can be separated into a number of categories. The individual point of view is the first perspective. Many academics believe that each person's knowledge and skill are unique (Beach, 2009). Parallel to this idea, several researchers think that human capital is closely related to talent, education and ability. Rastogi (2002) defined human capital as the knowledge, abilities, attitudes and behaviors that exist in individuals individually.

According to the second viewpoint, it is the development of human capital through knowledge. This viewpoint contends that education activities including post-secondary education, vocational training, and required education all involve the acquisition of information and experience.

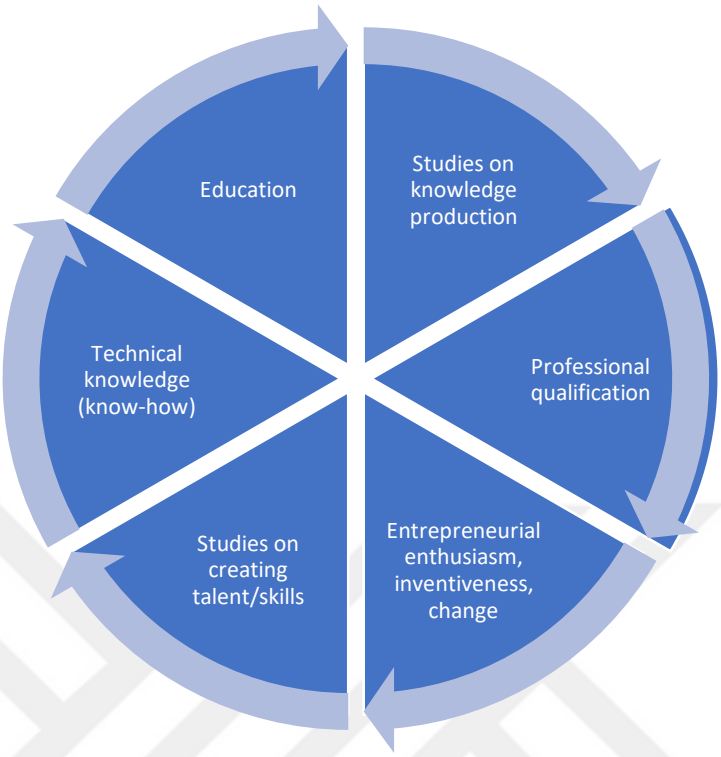
The third perspective considers human capital as production-oriented. Romer (1990) considered human capital to be the key to economic efficiency. Rosen (1999) defined human capital as investments made by people to boost their productivity. More recently, Frank and Bernanke (2007) described human capital as a confluence of elements including training, expertise, wit, vigor, work ethics, trust, and an employee's attempt to make marginal products. According to the production-oriented approach, human capital is defined as a stock of knowledge and experience that produces economic value (Sheffrin, 2003). In addition, some researchers have linked human capital to individual activities such as knowledge, ability, competence and social perspective, as well as individual creativity, social and economic well-being. In summary, human capital consists of the individual capacity, abilities, adaptability to the task, individual learning abilities and contributions of the company's managers and employees to their abilities and experiences (Dess & Joseph, 2000). Parallel to this, the integrated reporting draft proposal defines human capital as people's competencies, capabilities, experience, motivation to innovate, and ability to align with and support the organization's corporate governance framework, risk management strategy, and ethical values. It also defines loyalty, process as people's drive to develop products and services, as well as their ability to lead and manage.

The Importance of Human Capital

Because it is a source of invention and tactical innovation, human capital is crucial (Torres, 2006). The total of an employee's knowledge and abilities constitutes their human capital, which does not belong to the company (Acuner & Tan , 2002). The simplest definition of human capital is the collective knowledge that each employee in a business possesses (Bontis, William, & Stanley, 2000). Increasing staff competency has a favorable impact on the company's financial performance (Bozbura & Toraman, 2004).

Qualified human resources in an enterprise constitute the human capital of that enterprise. In this respect, human capital covers the skills, knowledge, and abilities of the employees. Depending on this situation, human capital is also defined as the ability of employees to apply their knowledge to business problems. On the other hand, since human capital is essentially human, organizations cannot actually own human capital, but in a sense they can hire it. Creativity and innovation are the leading factors that show how effectively human resources are used. The elements that make up the human capital can be summarized as in Figure 5 (Guthrie, 2001).

Figure 5 *Human Capital Elements*



Note. This figure is taken from " The Management Measurement and the Reporting of Intellectual Capital", J. Guthrie, *Journal of Intellectual Capital*, 2001, p.35.

Natural Capital

In the 18th and 19th centuries, economists defined the factors of production as capital, labor and land. Smith (1776) defined capital as an input that is not consumed in the production phase. Böhm-Bawerk (1891) alternatively defined capital as equipment such as machinery made by people who contribute to production. Land, on the other hand, has been defined as nature's gift to people, which contains all natural resources, but unlike capital, where people cannot change its supply. In the 20th century, economists defined capital as assets that affect income generation over time. With this definition, the land was combined with other capitals and the factors of

production were redefined as capital and labor. In the 1970s, with the limited nature of natural resources and environmental problems coming to the fore, leading economists worked for the recognition of natural capital. As a result of this, natural capital was defined as the stock obtained from natural resources and expressed as a significant and important source of production factors (Berkshire Publishing Group, 2022).

Natural capital is an economic structure that expresses the natural environment, eco system and the benefit of natural life to society. It is a concept that explains what people contribute to natural life and how society and organizations protect and consume the natural environment. Economists have explained the concept of natural capital as the contribution of natural resources to the economy. Many academic circles have touched on this issue with different approaches and different results have been found for sustainable development with these approaches. There is a broad consensus in the literature that natural capital refers to resources that can be used and recycled by humans, such as fish, water, minerals. In addition to these resources, there are resources provided by nature and called eco-systems that people benefit from.

In the framework of the integrated reporting framework, natural capital is defined as the renewable and non-renewable natural resources and processes that provide products and services that support the past, present and future prosperity. Natural capital includes:

a) Air, water, soil, mines and forests

b) Biodiversity and ecosystem health.

Natural capital can be expressed as a stock of natural resources or environmental assets that allow the creation of present and future goods and services, such as forests, agricultural lands, and oceans (Daisy, McDonald, & Moffatt, 1999). It is possible to examine natural capital in two groups as natural resources and ecological system services. Natural resources are resources consumed over an economic period. It is divided into two groups as renewable resources and non-renewable resources. Ecological system services, which are the other type of natural capital, have a structure that is not handled much according to natural resources and is not easily understood (Dyllick & Ayress, 2003).

Natural capital is a concept that includes environmental assets (soil, water and atmosphere) or natural resource stock that provide useful goods and services in the present and in the future. It also emphasizes the importance of various elements such as minerals, ecological system and processes to humanity. Natural and ecological systems are defined in terms of a set of environmental characteristics, which determine the capacity of these systems to produce goods and services. These environmental features can be classified into nine groups and are related to four basic elements such as air, water, soil and natural habitat.

The ecological system or natural capital features enable the development of the flow of goods and services produced through natural capital. These environmental functions are defined as the ability of natural processes and elements to meet human needs directly or indirectly. Resources are usually provided by ecological system

elements, while services are provided by production processes. Environmental functions are defined and classified in different ways.

When integrated reporting is considered as a reporting of non-financial information and financial information in the simplest sense, it is certain that it has a relationship with sustainable development. Sustainable development can be considered as a development path that tries to maximize the net benefits of economic development along with the maintenance of the quality and services of natural resources over time.

There are different approaches to sustainability. These are; weak sustainability, which accepts full substitution, and strong sustainability, which states that natural capital should be protected and does not accept substitution. There are very serious discussions in the literature about weak and strong sustainability development issues. The basis of the weak sustainability phenomenon is based on Neo Classical Economics. The weak sustainability development approach shows the substitutability of these two capitals as long as the total level of capital remains constant. Under this assumption of substitution natural capital and produced capital are allowed to come together. Despite the decrease in the natural capital stock, if this loss is compensated by the produced capital, then economic development is considered sustainable. In addition, since other types of capital replace natural capital, it can cause serious deterioration in environmental quality. Weak sustainable development phenomenon emerges from the thought that welfare does not depend on a specific type of capital, believes that sustainability can be achieved by substituting natural capital and produced capital, and accepts that there is no significant difference between different

types of capital and welfare (Ekins, Sandrine, Deutsch, Folke, & De Groot, 2003). The assumption of the existence of a strong warrant between both types of capital is considered an unrealistic assumption. In fact, natural and man-made capital complement each other.

A strong sustainability idea states that environmental (natural) capital should be fully supported and that there is excellent information on this subject. However, it is not enough to protect all levels of capital, and what is important is the protection of natural capital, which has no substitute. Strong sustainability emphasizes the need for natural capital to remain constant, known as the natural capital rule. According to this idea, if the destruction of natural capital is not allowed, there will be no danger of the deterioration of critical elements of natural capital and economic growth will be possible. In other words, economic growth will be sustainable in the long run.

The strong sustainability development approach accepts the natural capital rule, as stated above. The natural capital rule requires that the critical capital remains at a certain level without decreasing and offers the opportunity to meet the sustainable development requirements in the best way. This rule supports sustainable development from different perspectives. Namely (Ekins, Sandrine, Deutsch, Folke, & De Groot, 2003);

a) It is a guiding principle for sustainable development.
b) This assumes the low supply situation between man-made capital and natural capital due to the existence of critical natural capital.

c) It covers the protection of certain levels of environmental resources and the complex factors of the ecological system.

d) The application of this strict rule in determining some fixed level of natural resources also reflects the existence of potential limits not specified by Neo Classical Economics.

In the light of these evaluations, the strong sustainable development understanding developed by economic economics is more suitable for today's growth and development needs, but also brings more realistic explanations. First of all, it is emphasized that the natural capital, especially the critical natural capital, must be protected and solutions are sought for this purpose.

Manufactured Capital

Manufactured capital is a concept used instead of tangible assets and infrastructures owned, leased or controlled by the company, which are not consumed together with the services and products produced, and which contribute to the provision of products and services.

For the organization's long-term success, manufactured capital is crucial for two reasons. First, the organization has flexibility because to the efficient use of produced capital, which also enables it to be more responsive to market and societal needs and to launch new services and products faster. Second, manufactured capital ensures efficient and sustainable development while increasing human creativity by using less resources.

In the framework of the integrated draft, in parallel with this definition, produced capital is explained as the physical objects produced for the use of an organization for the purpose of producing goods or providing services (IIRC, 2021)

a) Buildings

b) Equipment

c) Infrastructure (such as ports, roads, bridges, and waste and water treatment plants).

Manufactured capital is generally created by other organizations, but also includes assets produced by the issuing organization for sale or acquired for its own use.

In the deliberation document published by the Integrated Reporting Council in 2011, some scholars stated that produced capital should be limited to factory production only, while others argued that produced capital could be obtained from financial statements such as tangible assets and intangible assets.

The relationship between produced capital and other capitals can be explained as follows (IIRC, 2022):

a) Although produced capital is owned by the organization and appears in its financial statements, financial capital is variable. In contrast, produced capital is dependent on financial capital flows in building the use of resources.

b) Produced capital can be an important part of intellectual capital.

c) Another term used instead of produced capital is tangible capital.

Financial Capital

When it comes to financial capital, the funds that come to mind are the funds used by the firm. These represent both capital and debt. The definition of financial capital focuses on the source of capital rather than the interchange of resources. The integrated reporting framework defines financial capital as pools of funds that have the following characteristics (IIRC, 2021):

- Accessible to a company for use in the manufacture of products or the rendering of services,
- Produced by operations or investments, or acquired through financing such as debt, stock, or grants.

Social and Relationship Capital

The concept of social capital is a sociological concept that increases its meaning and impact day by day, and its effectiveness in the development of society has become indisputable by social scientists. Adam Smith, Emile Durkheim, Thorstein Veblen, and Max Weber in particular stressed the significance of social capital in the development of the economy and the resolution of social issues. (Karagül & Dündar, 2006).

In order to include the consequences of social life into a nation's economic activity, social capital is a socially conscious economic term. Social capital can be defined as the potential for communication that can be developed in a trust-based

approach between at least two people, despite the fact that doing so is exceedingly difficult. By promoting communication between the people that make up the society, non-profit organizations, and public institutions, trust, norms, and communication can be characterized as an extension of this definition that raises the productivity of the society. (Temple, 2000).

In the framework of the integrated reporting framework, social and relational capital is defined as the ability of societies, stakeholder groups and other networks to share information in order to increase the traditions and relations within and between themselves and individual and collective welfare, and it has been mentioned that social and relational capital includes the following issues (IIRC, 2021):

a) Common values, shared norms, and behaviors,
b) Relationships with key stakeholders and the mutual trust and willingness to interact developed by an organization and which the organization works to maintain with its external stakeholders,
c) Intangible assets related to the brand and reputation developed by an organization,
d) The capacity of an organization to operate.

Intellectual Capital

In the literature, the term "intellectual capital" has been defined in a variety of ways. One of these meanings can be stated as follows: "Intellectual capital is the total of everything that the employees of the firm know (Şamiloğlu, 2002), which offers the business a competitive advantage in the market." This term highlights a topic that

is directly related to intellectual capital: delivering competitive advantage and making it sustainable.

Intellectual assets like knowledge, skill, and experience that are leveraged to create value are known as intellectual capital (Stewart T. A., 1997). What Stewart means by intellectual capital is not a collection of certificates kept in a locked room, he explains. I'm also not referring to intellectual property, which includes copyrights and patents. These are undoubtedly a component of intellectual capital, but it is the whole of all the things that the employees of a firm are aware of that provide it a competitive advantage. Intellectual capital has an intangible, intangible quality, unlike assets such as land, factories, equipment, cash, which are familiar to business people and accountants. Therefore, it is not easy to calculate and report.
Organizational, knowledge-based intangibles includes (IIRC, 2021):

- Intellectual property, including patents, copyrights, licenses, and software;
- Systems, procedures, and protocols are examples of "organizational capital"

Various intellectual capital models have been developed in the literature in order to define intellectual capital and determine its scope. Table 3 summarizes some of these models (Wang, 2008).

Table 3 *Definition of Capitals*

Researchers	Constructs	Intellectual Capital (IC) Definition
Bontis (1996)	Human Capital Structural Capital Relational Capital	IC could give a company new resources to compete and succeed.
Roos and Roos (1997)	Human Capital Structural Capital	IC is the total of all of the company's "hidden" assets, including brands, trademarks, and patents, as well as all other assets that are not listed in the financial accounts. The most significant source of long-term competitive advantages for a corporation is IC.
Stewart (1997)	Human Capital Structural Capital Customer Capital	Knowledge, information, experience, and intellectual property make up collective intelligence (IC), also known as useful knowledge.
Edvinsson and Malone (1997)	Human Capital Structural Capital Customer Capital	The term "IC" describes the discrepancy between a company's book value and market value.
Sveiby (1998)	Personnel Competence Internal Structure	IC is knowledge that can be used to create value.

	External Structure	
Bontis (1999)	Human Capital Structural Capital Relational Capital	IC is the efficient use of knowledge rather than information.
Andriessen and Stem (2004)	Human Resources Organizational Resources	A company's intangible assets (IC) are whatever resources it has at its disposal that offer it a comparative advantage and that, when combined, can result in future advantages.
Youndt et al. (2004)	Human Capital Organizational Capital Social Capital	The whole amount of information that a corporation can use to its advantage when conducting business is known as intellectual capital (IC).

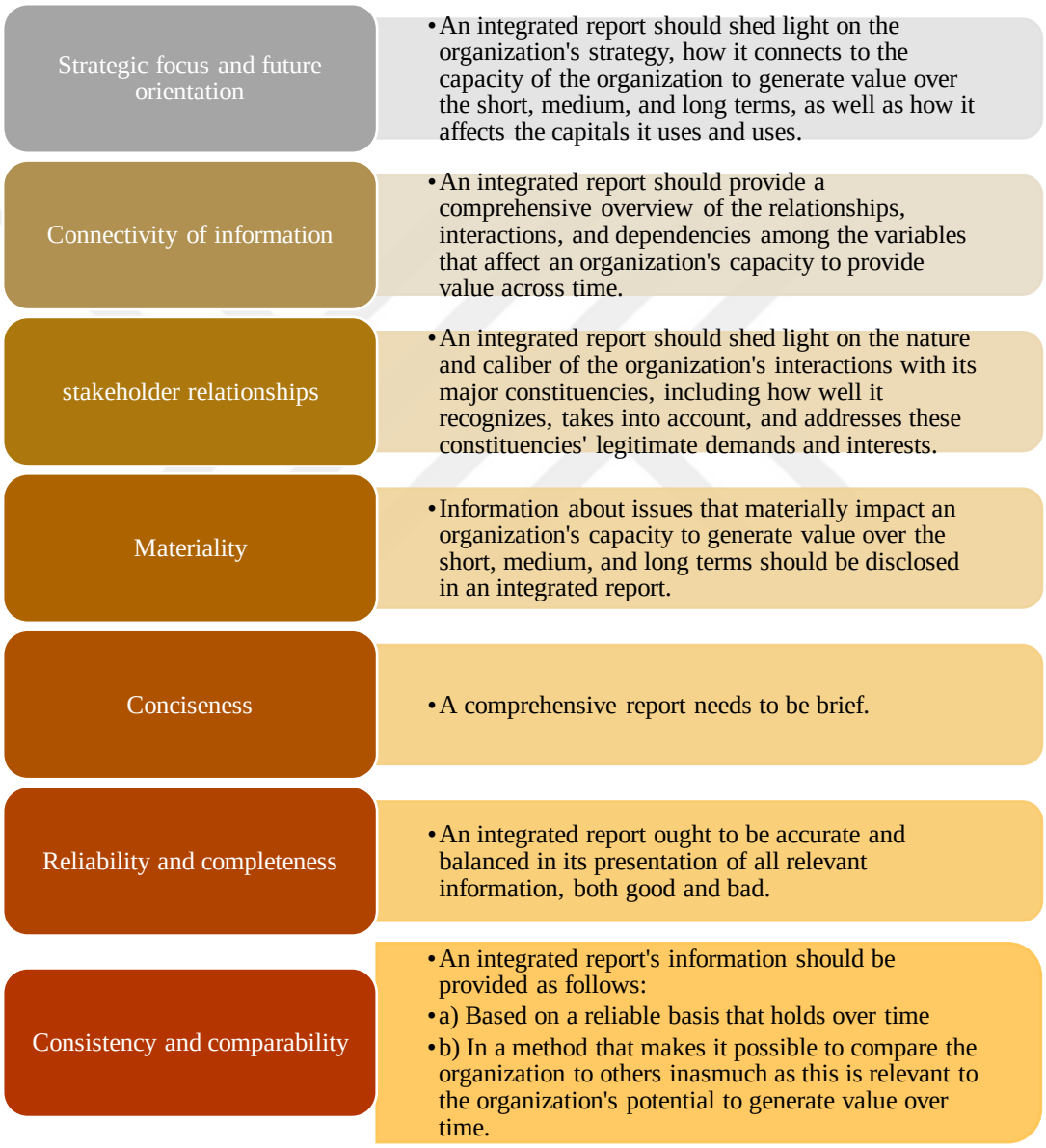
Note: This table is taken *from "Investigating Market Value and Intellectual Capital for S&P 500"*, Jui Chi Wang, *Journal of Intellectual Capital, 2008, p.*551.

c. Guiding Principles

IIRC, Principle 3.1 and Principle 3.57 are to direct the creation and submission of the integrated report in the International Integrated Reporting Framework. According to the Framework, all of these Guiding Principles will be taken into account during the preparation of the integrated report, but they can also be used separately in cases where it is not possible to comply with all of them.

The integrated report's preparation and presentation are guided by the seven Guiding Principles, which also inform the report's content and informational presentation. (IIRC, 2021). The Guiding Principles are shown in Figure 6.

Figure 6 *The Guiding Principles*

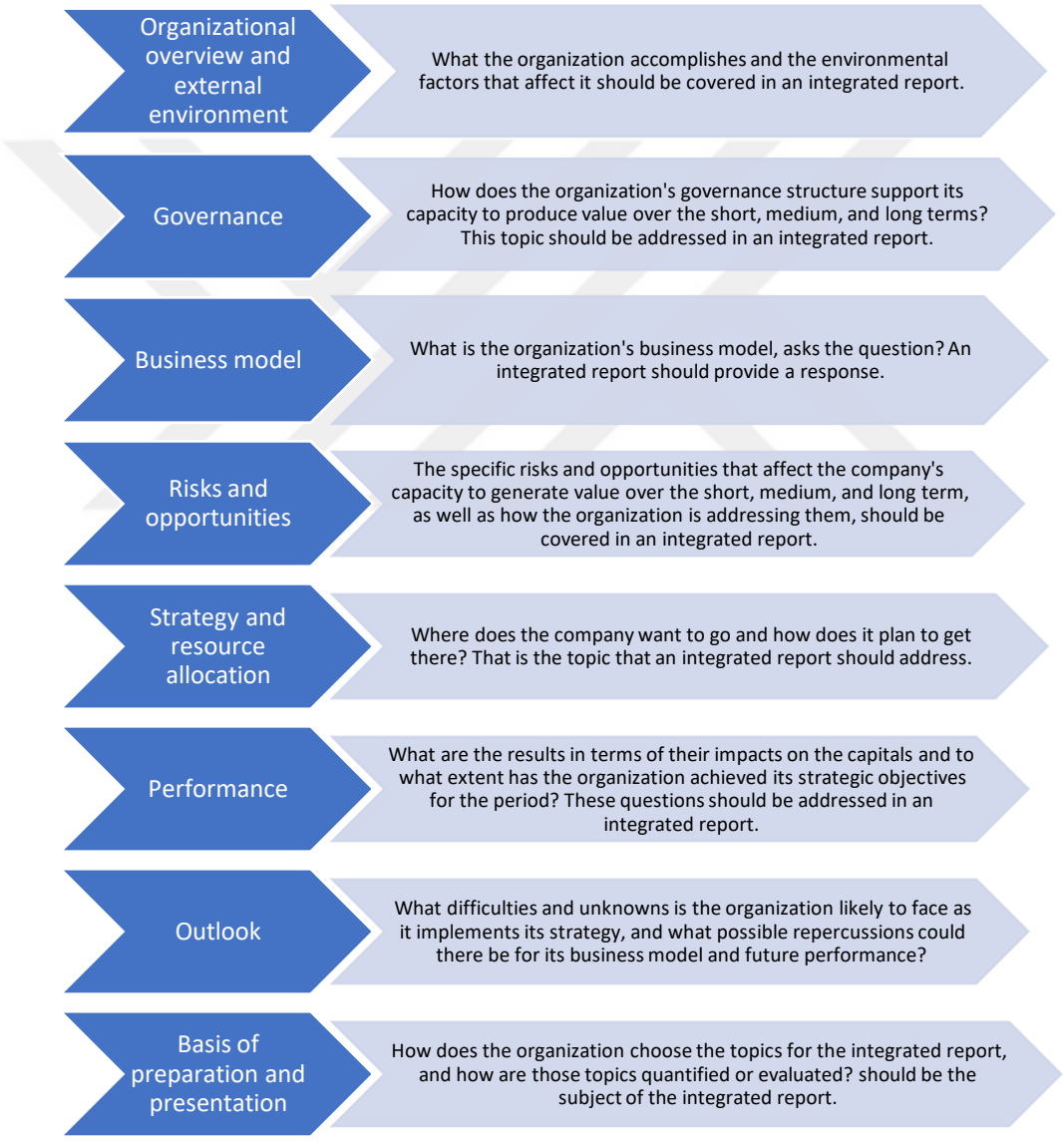


Note. This figure is taken from the report "International Integrated Reporting Framework" published by IIRC, 2021.

d. Content Elements

Prepared and presented on the basis of integrated thinking, the integrated report has 8 interconnected elements called Content Items. Content Items are described in the figure below (IIRC, 2021)

Figure 7 *International Integrated Reporting Framework Content Elements*



Note. This figure is taken from "International IR Framework" published by IIRC. Retrieved from https://www.integratedreporting.org/wpcontent/uploads/2021/01/InternationalIntegratedReportingFramework.pdf.

e. General Evaluation of the International Integrated Reporting Framework

The International Integrated Reporting Framework consists of two parts, an introduction and an Integrated Report. In the Introduction, information about the implementation of the Framework and the Basic Concepts in the report are given. In order to avoid conceptual confusion:

- Definition of integrated report, integrated thinking, integrated reporting,
- Value creation, value creation process and capital elements are explained,
- Explanations about the purpose and users of the integrated report are included.

The framework has been prepared with a "Principles-Based Approach" in order to allow comparisons between enterprises, taking into account the differences between enterprises. Each business should determine the key performance indicators that will show the important issues, capitals and the effect created on the capitals in line with its own conditions. It is the responsibility of the managers to make these determinations.

In the second part of the International Integrated Reporting Framework, Guidelines and Content Items are organized.

The Guiding Principles, are the principles that guide the preparation of the integrated report. The success of the business by achieving its strategic goals and maintaining this success in the future depends on creating value for all stakeholders. In the value creation process, the wishes, needs and expectations of the stakeholders should be taken into account. In the preparation of the integrated report, acting on the

basis of integrated thinking should link all financial and non-financial information that may affect the business strategy and future prospects. Issues that may have a significant impact on the business strategy and future expectations should be identified and included in the integrated report in order of priority. Identifying key issues and prioritizing is to keep the integrated report concise. In order to keep the integrated report concise and concise, it is not possible to exclude important issues. All issues that create positive and negative results should be included in the integrated report. This is necessary for reliability and completeness. However, issues that are considered important but for which reliable information cannot be fully reached may not be included in the report. In addition, criteria such as the principles and performance measurement methods in the integrated report should be consistent with those used by the enterprise in the past. Comparability of businesses with other businesses in the sector should be ensured.

Content Items are items that should be included in the integrated report, essentially answering some business-related questions. An integrated report should show the corporate outlook and external environment, corporate governance structure, business model, strategy and resource allocation, current or potential risks and opportunities that affect the business's value creation process. In order to see the impact on the capitals of the business as a result of the activities, the business performance should be evaluated using key performance indicators and metrics. In performance measurement, past performance results should be evaluated together with future performance results. Uncertainties that may affect the present and future performance of the business positively or negatively in the value creation process should also be presented in the report under the title of "Overview" in order to give all

stakeholders an idea about the business. In addition, information on the preparation and presentation of the report should also be explained in the integrated report.

3. FINANCIAL AND SOCIAL PERFORMANCE MEASUREMENT

In the first part, different definitions of integrated reporting were given. In this context, the history of financial and social reporting was emphasized and finally its connection with integrated reporting was explained. Considering integrated reporting as a reporting idea that basically consists financial and social information, measurement of financial performance is facilitated by quantitative nature of financial data and the use of certain principles in the formation and reporting of quantitative information such as generally accepted accounting principles, and the existence of many rule makers such as capital markets. But the same condition is not valid when it comes to social reporting that provides more qualitative information. Especially since the late 1970s, many academic studies have been done on the relationship between social performance and financial performance of firms. These studies also brought about the debates on how to measure social reporting. When the literature studies on the subject are examined, especially on the measurement requirements of social performance appears to be emphasized. Frederick (1994) claims that institutional responsiveness has taken the place of the philosophical and vague idea of corporate social responsibility (CSR), especially during the 1970s. Since then, the term "institutional responsiveness" has gained popularity on the basis that it is the application of social responsibility. This idea was researched and developed in the years that followed. He made a substantial contribution to the creation of social performance models as well. The corporate social responsiveness (CSR) and social behavior model that Sethi developed in 1975 has added a new dimension to social performance measurement and helped to develop new models.

In this section, corporate social performance and financial performance measurement topics will be focused.

3.1. Corporate Social Performance

Business crises involving political payoffs, life-threatening products, and toxic pollution drove home the point that the business environment was social and political, not just economic and technological, in the 1960s and early 1970s. Other shocks included the dramatic regulatory victories of environmental, consumer protection, and civil rights activists. (Wood, 1991). At the same time through social activism and regulatory activity it became apparent that the social expectations of business overtook managers' abilities and capabilities. Corporate social responsibility became an important topic for solvency and self-government.

Although the academic literature has examined the social duties of business, firms, and their management at least since the 1950s, there doesn't seem to be agreement on whether there has been any advancement in the field of these responsibilities (Bakker, Groenewegen, & Hond, 2005). According to McWilliams and Siegel (2001), corporate social responsibility (CSR) refers to actions that go beyond what is necessary to uphold legal requirements and the interests of the company in order to appear to advance some societal good. Surprisingly, there is little agreement regarding the development of the CSR idea. The literature on corporate social performance describes a similar circumstance (CSP). CSP is thought to connect to the results of such action, whereas CSR is thought to link to principles, corporate

social responsiveness to the action taken in this regard by corporations. (Frederick W. C., 1994).

Since the mid-1970s, several works proved to be influential in the development of corporate social performance concept. Sethi (1975), though he did not define CSP itself, proposed categories (defensive, reactive, responsive) by which a firm's overall social action orientation might be assessed. In the study of Carroll (1979), to provide CSP more substance as a study instrument, a three-dimensional model with categories for social responsibility, social issues, and social responsiveness ideologies was presented. In addition to corporate social responsibility and corporate social responsiveness, he proposed an all-encompassing CSP paradigm. According to him, CSP should consider a company's social performance holistically and shouldn't be distinguished from how well it performs in regard to stakeholders and social events. He defines the CSP model as the culmination of expectations in the areas of economics, law, ethics, and discretion. When this criteria are placed in a hierarchical order, the model in Figure 8 emerges (Carroll, 2016).

Figure 8 *Carroll's pyramid of CSR*

Note: This figure is taken from *"Carroll's pyramid of CSR: taking another look"*, A.B. Carroll, *International Journal of Corporate Social Responsibility*, 2016

Wartick and Cochran (1985) argued that public responsibility and social sensitivity can be combined into an understanding of corporate social performance. Even they leave Carroll out by saying that Carroll's four categories actually embody the social responsibility and that models are something other than principles. They contend that the guiding principle of individuals is their core beliefs, which serve as the driving forces behind their behavior. While categories break down many phenomena, they are neither motivating nor indicative of underlying truths. The sectors in which the principles are applied can be observed in Carroll's categories of economic, ethical, and discretionary, but they are not principles.

Wood (1991), while constructing her model has revised the definition of CSP, defined Wartick and Cochran (1985), and defined regulation of the social

responsibility principles of the business institution as social responsiveness process, policy programs and observable results of its social relations. In this definition, three section is included. Part one, Corporate social responsibility (CSR1) means the accountability in business activities. The second part, institutional reactivity, expresses the necessity of acting according to social demands. The third part means acting for the natural and social environment without considering the adverse consequences it has. Thus, Wood created CSP model by combining corporate responsiveness and corporate social responsibility.

When all these social performance models are examined, besides CSR, it appears to be based on the concept of Corporate Social Responsiveness. So, in this subsection corporate social responsiveness will be emphasized and the important social performance models will be focused.

3.1.1. Corporate social responsiveness

The second leg of the corporate social performance model, corporate social responsiveness, provides the action dimension within which the principles of social responsibility can be acted out (Wood, 1991). The concept of corporate social responsiveness has been used by academic environment, as a concept that replaces social responsibility and an advanced form of social responsibility and a complement of it. In this definitions, Sethi (1979) used corporate social responsiveness as an advanced form of corporate social attitude. Academicians claiming that corporate social responsiveness replaces corporate social responsibility have stated that

corporate social responsiveness has more concrete and more feasible goals than social responsibility.

The leading proponent of the argument that corporate social responsiveness takes the role of corporate social responsibility is William C. Frederick. Frederick (1978) gave it the well-known abbreviation CSR2 and defined social responsiveness as "the capacity of the firm to respond to societal demands." Frederick identified corporate social responsiveness and corporate social responsibility as CRS1 and CRS2, respectively. After the 1970s, he concluded that the notion of CRS1 is immeasurable and involves philosophical concepts, and that there is a tendency towards the CRS2 approach. He described the concept of CRS1 as the duties of enterprises to society.

Against the argument of Frederick, Carroll (1979) states that CRS2 does not replace CRS1, but complements each other. He defined CRS2 as the process between not responding (doing nothing) and responding effectively (doing a lot).

According to Wood (1991), companies are very sensitive to the environment and social pressure but they can also be irresponsible and unethical. Moreover Wood accepts the idea that social reactivity is used as a substitute for social responsibility. However, he defended that it is a complement to social responsibility thought.

On the other hand, Wartick and Cochran (1985) argue that corporate social responsiveness as a tool used to reach social responsibility and they based social responsibility on the basis of ethical thought while expressed corporate social

responsiveness is based on practice. The differences between the concepts are summarized in Table 4 (Wartick & Cochran, 1985).

Table 4 *Differences Between Concepts*

FACTOR	SOCIAL RESPONSIBILITY	CORPORATE SOCIAL RESPONSIVENESS
Major Consideration	Ethical	Pragmatic
Unit of Analysis	Society	The firm
Focus	Ends	Means
Purpose	"Window out"	"Window in"
Emphasis	Obligations	Responses
Role of the Firm	Moral agent	Producer of goods and services
Decision Framework	Long term	Medium and short term

Note. This table is taken from "The Evolution of the Corporate Social Performance Model", Wartick & Cochran, Academy of Management Review, 1985, p. 758.

3.1.2. Corporate social performance models

Although corporate social performance has been used since the 1970s, the lack of consensus on social responsibility and the rise of difficulties on the measurement of it provide a basis for the emergence of corporate social responsiveness discussed in the previous chapters. Accordingly, measuring social performance studies have emerged.

Sethi (1975) defined corporate social performance (CSP) and asserted categories (defensive, reactive, responsive) by which a firm's general social action tendency might be evaluated. During this term, Frederick (1978) discussed that corporate social responsiveness was the suitable concept for CSP research. Carroll (1979) offered a three-dimensional model consisting social responsibility, social issues, and philosophies of social responsiveness. Rather than aiming for precise lines of social performance with this model, Carroll aims to understand the basic framework of social performance. Model enables managers to think systematically about fundamental social issues. It reveals how businesses should plot a route in the face of social issues. On the other hand, it reveals a concept for the good management of social performance programs (Carroll, 1979)

Wartick and Cochran (1985) developed the corporate social performance model introduced by Carroll and reinterpreted principles as processes and policies. The corporate social performance model of Wartick and Cochran is given in Table 5 (1985). While the principles part of the model constitutes the CSR, the processes part constitutes corporate social responsiveness, on the other hand the policies part formed the tendency towards social issues. In the corporate social performance model of Carroll, social issues constitute the dimension of the model, while Wartick and Cohran is more concerned with how to manage social issues rather than address them and their findings are shown below in Table 5 (1985).

Table 5 *The Corporate Social Performance Model*

Principles	**Processes**	**Policies**
Corporate Social Responsibilities	Corporate Social Responsiveness	Social Issues Management
Economic	Reactive	Issues Identification
Legal	Defensive	Issues Analysis
Ethical	Accommodative	Response Development
Discretionary	Proactive	
Directed at:	**Directed at:**	**Directed at:**
The Social Contract of Business	The Capacity to Respond to Changing Societal Conditions	Minimizing "Surprises"
Business as a Moral Agent	Managerial Approaches to Developing Responses	Determining Effective Corporate Social Policies
Philosophical Orientation	Institutional Orientation	Organizational Orientation

Note: This table is taken from "The Evolution of the Corporate Social Performance Model", Wartick&Cochran, published in Academy of Management Review, 1985, p.758.

Wood (1991) created the corporate social performance model shown in Table 6, by revising Wartick and Cochran's model. In Wood's performance model, corporate

social responsibility principles, corporate social responsiveness processes, the consequences of corporate behaviors discussed under three headings.

Table 6 *The Corporate Social Performance Model*

Original by Wartick and Cochran (1985)	Revision by Wood (1991)
Principles of corporate social responsibility	**Principles of corporate social responsibility**
- Economic	- Institutional principle: legitimacy
- Legal	- Organizational principle: public responsibility
- Ethical	- Individual principle: managerial discretion
- Discretionary	
Process of corporate social responsiveness	**Process of corporate social responsiveness:**
- Reactive	- Environmental assessment
- Defensive	- Stakeholder management
- Responsive	- Issues management
- Interactive	
Programs & policies for managing social issues:	**Outcomes of corporate behavior:**
- Issues management	- Social impacts
	- Social programs
	- Social policies

Note. This table is taken from *"Social Issues in Management: Theory and Research in Corporate Social Performance"*, D. Wood, *Journal of Management*, 1991, p.283.

In the model of Wood, corporate social responsibility principles are discussed under three headings. These are; legitimacy, public responsibility and discretion of the ruler. Of these, the principle of legitimacy is responsible for the company's decision-making processes and policies. Those who do not use their power in the long run to express their behavior emphasizes that they will lose (Wood, 1991). Corporate responsibility means to behave responsibly towards social groups they interact. Lastly, the manager's discretion is based on the ethical behavior of the business management .

The second part of Wood's model is the processes of corporate social responsiveness. Wood discussed the corporate social responsiveness under the headings of environmental assessment, stakeholder management and management of social issues. Environmental assessment, is based on the idea that businesses have a good environmental monitoring mechanism. Businesses can better adapt to changing conditions and respond more easily to demands. In this respect, it will be able to return in terms of financial performance. Stakeholder management is fulfilling responsibilities toward stakeholders. For the management of social issues, it refers to the development of policies and programs is referred (Wood, 1991).

The final title of Wood's model is the consequences of corporate behavior. The consequences of corporate behavior, social influence, social programs and social policies are considered (Wood, 1991).

On the other hand, Swanson (1985) utilizes the task method in the corporate social performance model to help businesses meet their goal of giving back to society by offering products and services. It has taken on its current form under the constraints of the economic approach, which emphasizes the need for efficient and lucrative production.

The model of Swanson consists of four dimensions. These are; macro principles of CSR, micro principles of CSR, corporate culture and social effects. In Swanson's model, corporate principles are both economic and as well as in the context of the task approach. Businesses are economic units. Therefore, it is seen as a tool to realize an efficient and profitable production. The positive mandate is that firms voluntarily give rights to other stakeholders while negative mandate is the limitation of the activities may cause some harm to the society in general.

3.1.3. Social performance measurement methods

There are two main difficulties in measuring social performance. Firstly, there is no definition to measure the amount of social activities in accordance with social responsibility theories and rules. The second reason is even the quantity is measured, there is an absence of a methodology plan to measure all known effects of social activities on society. In determining the methodology for research, factors such as age, size, recognition of the companies can also be effective. From time to time companies may change their names due to reasons such as the division of companies, and this can also cause changes in perceptions towards them (Walter & Joseph, 1979). There

are two generally accepted methods for the measurement of social performance. These are reputation indexes and content analysis method (Cochran & Wood , 1984).

3.1.3.1. Reputation indexes

Perhaps a company's reputation is its most important, strategic, and long-lasting asset (Cravens, Oliver, & Ramamoorti, 2003). Arguing that 'good reputation create wealth', Fombrun (1995) indicates that high reserves of reputational capital give an organization distinct advantages:

- They fetch greater prices for their goods and stock offers, which attract more buyers and investors.
- Their positions draw more candidates and increase employee productivity and loyalty.
- They have more leverage with suppliers, pay less for purchases, and have more predictable revenue streams.
- Their risks of crisis are fewer- and when crises do occur, they survive with less financial loss.

Numerous approaches that combine book values and market values to generate a residual measurement of intangibles have been developed in response to the requirement to analyze intangibles connected with corporate value. (Cravens, Oliver, & Ramamoorti, 2003). The first of the methods that measure social performance is reputation indices. In this method, firms are evaluated by knowledgeable supervisors in terms of several dimensions of one or more of the social performances. This

method has some advantages. The first of these is that the firms are evaluated consistently with the same criteria by an observer. Second, it prevents dogmatic subjective information by setting rigorous objective criteria. Another advantage is that various companies summarize its' perception of important customers. Additionally, it plays a significant role in illuminating the connection between social and financial performance (Cochran & Wood , 1984).

However, corporate reputation also has some disadvantages. These are; while such a rating is subjective, it may differ from one supervisor to the other. Such an issue may increase anxiety about the degree of confidence in the index. The second significant drawback is that only a small number of organizations are subject to multiple reputation indices (Cochran & Wood , 1984).

Measuring reputation is the first stage in reputation management. Managing something that cannot be measured is impossible. Institutions must assess how the target audience perceives them, the variables that shape their reputations, their strengths and weaknesses, and how their reputations compare to those of rival institutions (Alsop , 2004). An important tool for evaluating databases and corporate social responsibility is the reputation index. A Knowledge Capital Scoreboard® was created by Baruch Lev and Marc Bothwell and is based on deducting the book value of company assets from market value (Mintz, 2022). Popular examples are the RepTrak Model of Reputation Institute, Kinder, Lydenberg, Domini database (KLD), Fortune Reputation Index, Canadian Social Investment database (CSID) reputation index, and Kinder, Lydenberg. Since its inception in 1989, KLD Social Index has compiled the largest database of businesses using both positive and negative social

investing criteria. KLD covers nine topics, including the environment, military contracts, employee relations, community involvement, product safety, quality programs, excessive executive compensation, diversity, and nuclear power. KLD is a listed company on the US stock market. The Fortune Reputation Measure is a systematic index that assesses social interactions from the manager's perspective. This index consists of the research on “America’s Most Admired Companies” done by Fortune Magazine that used RepTrack Model of Reputation Institute. The following factors are used by Fortune Magazine's research to evaluate a company's reputation: management quality, product and service quality, long-term investment quality, innovation, financial stability, ability to influence, develop, and attract talented employees, social and environmental responsibility, and resource allocation. (Bromley, 1993). One of the critiques leveled against the America's Most Admired Companies poll is that although Fortune's research only covers evaluations of business executives, corporate reputation includes the opinions of all target groups of the institution. Additionally, Fortune's research is criticized because it exclusively evaluates financial performance (Deephouse D. L., 1997). Therefore, there is a need for different measurement methods that take into account non-financial assets as well as the financial performance and the opinions of different target groups in its corporate reputation measurements.

RepTrak Model, which is an extremely comprehensive measurement model, is the supreme study in the field. In the RepTrak Model, each dimension evaluates to what extent it affects the emotional bond between the company and a specific social stakeholder. RepTrak target with 23 key performance indicators in 7 dimensions that most affect the reputation of the corporations and measures the emotional attitudes of

the target group's emotional attitudes. These seven dimensions are; product and services, innovation, governance, financial performance, leadership, work environment and citizenship.

3.1.3.2. Content analysis

Content analysis is the second technique used to gauge corporate social responsibility. On the basis of annual and corporate social responsibility reports, content analyses are developed. This technique examines whether a particular subject is presented quantitatively or qualitatively (for instance, pollution control) (Cochran & Wood , 1984).

There are two significant benefits to content analysis. The first of these is objectivity, which is attained by choosing specific criteria, while the study results become independent. The second benefit is that it can measure a lot of businesses because it is a mechanical technique. Furthermore, content analysis has several shortcomings. These are due to the subjective nature of the variable selection and the discrepancy between what the corporations say and do. (Cochran & Wood , 1984).

Content analysis method, due to the standardization of companies in the selection of social bases and rating system, seen as an objective method in the selection of social activities (Ruf, Krishnamurty, & Karen, 1998).

3.1.3.3. Social responsibility indexes

Social responsibility or sustainability indices are indices that are aiming to assess the social, environmental, and managerial issues of companies and allow investors to invest in socially responsible companies (Borsa İstanbul, 2022).

The first sustainability index in the world was Domini 400 Social Index which is calculated by "KLD Research & Analytics", a business that prepares researches for corporate investors and produces indices in 1990. The development that led to the increase in the interest of financial markets, investors and companies in sustainability indices are the sustainability indices created in 1999 and 2001 by Dow Jones and FTSE 4 Good. With this development research studies, the effect of sustainability indices on the corporate performance of companies have also increased. Emerging markets constitute a significant part of the startups that calculate new indices. South Africa (2004) and Brazil (2005) pioneered for sustainability indices which started to calculate the sustainability index before most of the developed markets (Borsa İstanbul, 2022).

The GRI, Global Reporting Initiative Guide is the most accepted and mentioned in the sustainable reporting guide today. This guide is determined by Global Reporting Initiative created in collaboration with various non-profit organizations such as United Nations, representatives of various industries, boards of accounts and non-profit organizations. Other important standards used in social reports are: the AA1000 Standards, created by the Institute for Social and Ethical Accountability, SA8000 Social Responsibility Standard adopted by Social Responsibility Organization in 1997, United Nations Global Compact, ISO 14001

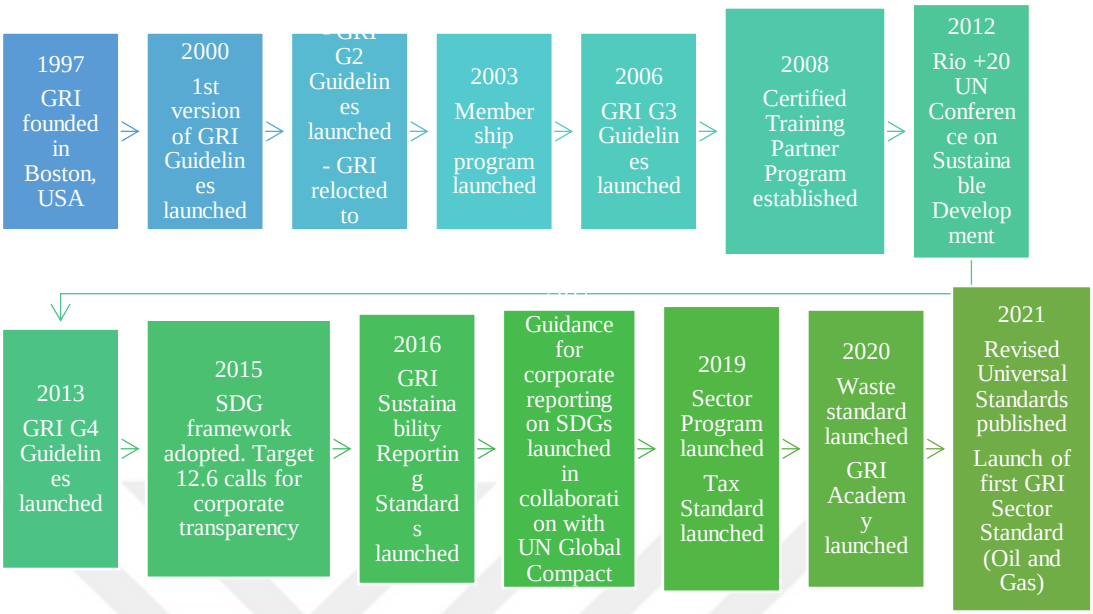
Environmental Management System Standard, and ISO 9001 Quality Standard and Sustainability Reporting Guide.

In this section, firstly, the sustainability guide will be mentioned with social responsibility and sustainability indices that are considered important, commonly used databases will be included and information will be given about the indexing studies in Turkey.

3.1.3.3.1. Sustainability reporting guidelines

By giving them a universal common language to describe those impacts, the independent, multinational GRI (Global Reporting Initiative) organization assists corporations and other organizations in accepting responsibility for their affects. It offers the GRI Standards, the most popular sustainability reporting guidelines in the world (GRI, 2022). The GRI collaborates with the UN Environment Program's Global Compact Program, formerly known as CERES Principles (Coalition For Environmentally Responsive Economies) in 1997; created by CERES and established as an independent organization in 2002. (UNEP). GRI collaborates with members of the business sector, industry experts in accounting, investing, human rights, the environment, and employee and employer relations, as well as other individuals and institutions (Nemli, 2004). GRI switched from offering recommendations to creating the first international standards for sustainability reporting in 2016, the GRI Standards. New Topic Standards on Tax (2019) and Waste are among the most recent additions to and updates to the Standards (2020) (GRI, 2022). The development of GRI is given in Figure 9.

Figure 9 *The Historical Development of GRI*



Note: This figure is taken from *"GRI's own reports"*, published by GRI. Retrieved from https://www.globalreporting.org/about-gri/mission-history/.

The GRI Standards are modular system comprising three series of Standards: the GRI Universal Standards, the GRI Sector Standards, and the GRI Topic Standards. The standards contain disclosures, which provide a structures means for an organization to report information about itself and its impacts. The disclosures can have requirements and can also include recommendations. Requirements list the information an organization must report or instructions it must comply with and report in accordance with the GRI Standards. (GRI, 2022). The GRI Universal Standards apply to all organizations, and consist of the following (GRI, 2022):

- GRI 1: Foundation 2021 outlines the purpose of the GRI Standards, clarifies critical concepts, and explains how to use the Standards.

- GRI 2: General Disclosures 2021 contains disclosures relating to details about an organization's structure and reporting practices: activities and workers; governance; strategy; policies; practices; and stakeholder engagement.
- GRI 3: Material Topics 2021 explains the steps by which an organization can determine the topics most relevant to its impacts, its material topics, and describes how the Sector Standards are used in this process.

GRI Reporting Guide consists of five parts. The first part is from the vision and strategy of the guide, the second part is the profile features of the guide, the third part is the administrative structure and management systems, the fourth part is from the sustainability content index and the last part consists of performance indicator. In Table 7 the sections of the guide are stated (GRI, 2022):

Table 7 *Sustainability Reporting Guide- Parts*

PART	STATEMENT
1. Vision and Strategy	This section includes the sustainability vision and strategy of the organization.
2. Profile	Information about the organization's activities, to read the rest of the report easier preliminary information about the organization's activities with contact information are stated in this part.
3. Governing Structure and	In this section, the management system and policies of the organization that targeted sustainability development are explained.

Management System	
4. GRI Content Index	In this section, a table that consists which parts of the guide are included in the report prepared by the organization corresponds to which sections is given.
5. Performance Indicators	This section includes the performance indicators of the organization.

Note: This table is taken from *"A Short Introduction to the GRI Standards"*, published by GRI, retrieved from https://www.globalreporting.org/media/wtaf14tw/a-short-introduction-to-the-gri-standards.pdf.

Performance indicators in the fifth part of the guide is being examined within three dimensions:

a) Economic performance: The economic dimension of sustainability is the performance that the organization causes changes in the economic levels of its stakeholders and the effects on the local, national and global economic system.

b) Social performance: The performance of the firms on the social system in which it operates and its effects on its employees.

c) Environmental performance: The environmental dimension of sustainability is related to the effects on living and non-living natural systems such as soil, air and water.

Table 8 *The categories and dimensions of firms on economic, environmental and social performances.*

Indicator	Category	Dimension
Economic	Direct Economic Impacts	- Customers - Suppliers - Employees - Shareholders - Public Sector
Environmental	Environmental	- Materials - Energy - Water - Biodiversity - Suppliers - Products and Services - Suitability - Transport
Social	Work/Labor Practices	- Employing Labor - Employee Management Relations - Health and Safety - Training - Diversity and Opportunities
	Human Rights	- Strategy and Management

		- Organization and Collective Agreement Freedom - Security Practices
	Social	- Communication - Bribery and Corruption - Political Donations - Competition and Pricing
	Product Responsibility	- Customer Health and Safety - Products and Services - Advertisement - Respect for Private Life

Note: This table is taken from *"A Short Introduction to the GRI Standards"*, published by GRI, retrieved from https://www.globalreporting.org/media/wtaf14tw/a-short-introduction-to-the-gri-standards.pdf.

Performance indicators in the content of the sustainability reporting guide divided as qualitative and quantitative. The sustainability reporting guide takes quantitative indicators into account because qualitative indicators sometimes could not be measured. Qualitative indicators constitutes economic, environmental, and social performances of the firms.

For multinational corporations, a sustainability reporting guidance was generally devised. As a result, it falls short of meeting the needs of small and medium-sized firms as well as companies operating in emerging nations.

3.1.3.3.2. Dow jones sustainability index

In 1999, SAM (Sustainable Asset Management) was founded in Zurich and Dow Jones came together and created the Dow Jones Sustainability Index to monitor the sustainability and financial performance of firms. Firms, based on their economic performances, social and environmental policies, included to Pan-European Dow Jones Sustainability Index and Dow Jones Sustainability Index. Dow Jones Sustainability Index, in addition to being able to measure the developments of businesses on sustainability, it has also importance from financial point of view.

Dow Jones Sustainability Index (DJSI) defines sustainability indicators are grouped under three headings such as; to be economic, environmental and social. These headings and subheadings are listed in Table 9 (Sam Sustainable Investing, 2022).

Table 9 *Dow Jones Sustainability Index Indicators*

INDICATOR	STATEMENT
Economic Indicators	- Codes of Conduct/Compliance/Anti-Corruption & Bribery - Corporate Governance - Risk and Crisis Management - Industry Specific Criteria
Environmental Indicators	- Environmental Reporting - Industry Specific Criteria
Social Indicators	- Corporate Citizenship/Philanthropy

	- Labor Practice Indicators - Talent Attraction & Retention - Social Reporting - Industry Specific Criteria

Note: This table is taken from "Sam Sustainable Investing", retrieved from https://web.archive.org/web/20110716171316/http://www.sustainability-index.com/djsi_pdf/publications/Presentations/SAM_Presentation_090903_Review09.pdf.

DJSI does not score all companies on a single index. Different criteria have been determined according to sectors, sub-sectors and special fields of activity. For companies operating in areas such as alcohol, tobacco and entertainment sector, index groups were created. General criteria are mostly consist of corporate governance, development of human capital, risk and crisis management issues and their weights varies between 40-50%. Apart from the general criteria, the companies' own sectoral negations and opportunities that arise depending on the conditions and fields of activity are being evaluated.

DSJI's information resources are sorted by;

a. Multiple choice questions directed to companies
b. Information obtained sources from companies' websites, and from reports such as; sustainability, environmental and social reports of companies, health and safety reports, annual financial reports, corporate governance reports, etc.
c. Media and sharing reports,
d. Meeting with company personnel

while based on the criteria tailored to companies' own sector grading is as follows:

For each question separately;

Response point taken The weight of the problem Criterion weight

Question

from the question (0-100) x (criterion in) x (survey in) = grade

The total index grade consists of the sum of the grades of each question. DSJI World Index weighted based on free floating market capitalization rate. The degree of free variation in the total number of shares in circulation determines how components are weighted. Each component's weight is capped at 10% of the DSJI World Index's total market capitalization (S&P, 2022).

3.1.3.3.3. FTSE4Good index

A company called the FTSE (Financial Times Stock Exchange) was founded in 1995 in partnership with the Financial Times and the London Stock Exchange. The purpose of the FTSE4Good Index Series is to track the performance of businesses that exhibit sound Environmental, Social, and Governance (ESG) principles. FTSE4Good indexes are acceptable tools to be utilized by a wide range of market participants when developing or evaluating sustainable investment products due to transparent management and explicitly stated ESG standards (FTSE Russell, 2022).

Companies are ranked by the FTSE4Good Index using five primary factors. These include climate change, supply chain integrity, labor standards, and environmental sustainability. Companies that are somehow related to the issues such as; monopoly, nuclear weapons, all armed systems, nuclear power, uranium mining,

etc. are eliminated and not included in the index. The companies included in the index are also divided according to their sectors and classified according to the environmental impacts of the sectors. In relation to the environmental impact of the industry, high, medium and low impact scores are given to the firms (FTSE Russell, 2022). The main index participation criteria are given in Table 10 (Özbay, 2013).

Table 10 *FTSE4Good Index Key Indicators*

Environmental Sustainability		
1. Environmental Policies and Commitments		
Key Indicators	**Optional Indicators**	
The policy includes all important issues	Globally applicable partner standards	
At management or unit level responsibilities	Recognizing the impact of stakeholders on the business	
Accepting the use of goals	Policy determines product and service impact	
Accepting monitoring and moderation	Strategic movements for sustainability	
Accepting public reporting		
High Impact	**Medium Impact**	**Low Impact**
Policy should cover all groups	Policy should cover all groups	At least one of 9 indicators must be obeyed
In addition to the five key indicators	At least three basic the four principles	

as at least one optional indicator or the four basic In addition to the indicator, two optional connected indicator must be observed	must be obeyed	
Environmental Management Systems		
Existence of environmental policy		
Identification of significant impacts		
Establishing written objectives on key issues		
Procedures and responsibilities, manuals, action plans, outline of procedures		
Internal audit (not limited to compliance with the law)		
Internal reporting and management review		
High Impact	**Medium Impact**	**Low Impact**
If EMS, company one-third to two thirds of its activities six, if applied between that the indicator complies with all and achieving this goal	EMS, company third of their activities should cover one at least four items must comply.	Do not need
If EMS, company two-thirds of its activities if applied to more, one "to the writing in all the important areas to be "poured goals" at least five indicators must comply.		
Environmental Reports		

Key Indicators	**Optional Indicators**	
Environmental policy	Environmental management system outline	
Description of main effects	Non-compliance, lawsuits, accidents, penalties	
Quantitative data	Financial dimensions	
Performance measured against targets	Independent examination	
	Stakeholder Dialogue	
	Scope of sustainability issues	
High Impact	**Medium Impact**	**Low Impact**
Report within the last three years must be published,	No requirement.	Do not need it.
If it does not cover the whole group four criteria must be met,		
Two of the three key indicators must comply		
II. Supply Chain Worker Standards*		
Policy and Codes		
Equal opportunity		
Forced labor		
Child Labor		
Collective bargaining and freedom of bargaining		

Health and Safety;
Working hours
Fees
Disciplinary procedures
Management;
Visiting and inspection of suppliers
Establishing global communication policies for suppliers
To a member of the board of directors or a senior executive concerned with the implementation of policies and codes. assigning responsibilities to managers
Training of employees on relevant issues
Policies and codes to include solutions for any non-compliance should be created
III. Human And Employee Rights*
Policies;
Having specific policies on human rights along with the rights of employees
Presenting reports on human and employee rights to the board of directors
To meet at least two of the ILO's core standards for workers
“United Nations Global Compact, Global Sullivan Principles, SA 8000, Ethical Trading Human rights initiatives such as the Voluntary Principles of Security and Human Rights to have signed
Supporting the Universal Declaration of Human Rights
Respect for the rights of the local community

Management;
Implementation and monitoring of policy criteria
Training of employees on human rights
Negotiation with Stakeholders
Assessment of human rights impact reporting;
To make human rights reports to cover policies and management systems
IV. Anti-Corruption*
Policies;
Prohibition of bribery
Obligation to comply with relevant laws
Prevention and follow-up of facilitation payments
Prevention of giving and receiving gifts
Policies should be accessible to the public
Management;
Announcing the policies to the employees
Training of employees on relevant subjects
Compliance policies (audit, monitoring, reporting)
Non-compliance prevention procedures reporting;
Disclosure of policies to the public
Disclosure of compliance mechanisms to the public
V. Climate Change*
Policies;
Discussion of issues related to climate change with the board of directors or senior management

Determining the main needs related to climate change, related to business activities defining climate change public policies.
Management and Strategy;
Determining long-term (more than 5 years) strategies against greenhouse gas emissions and they are public
Determination of short-term management targets in this regard.
Explanation;
Disclosure of total greenhouse gas and CO2 emissions
Disclosure of sectoral measures related to emissions
Performance;
Reduction of carbon intensity by at least 5% within 2 years
Top quartile by emissions measures in the company's own industry in the previous two years must take place.
Transformational priorities should be provided and heeded.
*These are the criteria for the high impact class.

Note: This table is taken from " Kurumsal Sosyal Sorumluluk Endeksi: Bir Model Önerisi", D. Özbay, Phd. Thesis, 2013.

3.1.3.3.4. Fortune reputation index

Fortune Magazine compares businesses to a certain extent and determines the most attractive companies in America every year. For this study the opinions of managers and financial analyst are taken. Approximately 300 enterprises and 32 sector are included in the study. Respondents from similar industries are asked to rank in order of scale from 0 (poor) to 10 (excellent) considering eight characteristics of

the firm. Fortune publishes individual rankings of companies according to the results of the survey. The elements that are establishing Fortune criteria are as follows (Shalhoub, 2009):

a. Management quality,

b. Product quality,

c. Creativity and innovation,

d. Long-term investment profitability,

e. The soundness of the financial structure,

f. The power to attract and retain qualified human resources

g. Responsibility towards society and the environment,

h. Accurate and intelligent use of business resources.

The reliability of these evaluations is still contested despite their widespread use. owing to the structure's inclusion of four social measures and four financial metrics. The index is criticized for being based on financial fundamentals because of this (Fombrun, 1990; Fombrun, 1996; Deephouse D. L., 1997; Brown & Perry, 1994; Fryxell & Wang, 1994). Brown and Perry (1994) stated that the Fortune index is based on financial measures, this has an impact on studies examining the link between business reputation and financial performance. With this idea, the error coefficient is increased by using a measurement scale that is already based on financial performance to assess the impact on financial performance (Brown & Perry, 1994). Also, Brown and Perry (1994) contends that the index is insufficient to evaluate other social components of business reputation aside from financial impact. Hence Fombrun and Shanley (1990) claimed that using the Fortune index alone was

inappropriate but that it could be used with some structural alterations. Another complaint is that the survey relied solely on the insights of subject-matter specialists. In addition to the fact that corporate reputation is made up of numerous internal and external elements, the research only includes the opinions of one sector, and the conclusions are deemed to be deceptive.

3.1.3.3.5. South African sustainability index

The South African Sustainability Index (JSE SRI index) constituted in 2004 according to the triple bottom line principle and corporate governance practices. The main headings of the index criteria are designated as environment, society and management (JSE, 2022).

The index makes a classification by considering the environmental effects of companies. According to their environmental impact, companies are classified as high, medium and low impact. This classification is combined with the sector-based classification, reveal the relationship between the environmental damages and economic gains of the sectors. According to which environmental impact category businesses are in, are obligated to fulfill the criteria. Since 2010, the primary heads of environment, society, and management have been combined into the index criteria, and the heading of climate change has been introduced as an unique category (JSE, 2022). Narrative Disclosures and Sustainability Metrics are given in Figure 10.

Figure 10 *The JSE Sustainability Narrative Disclosures and Sustainability Metrics*

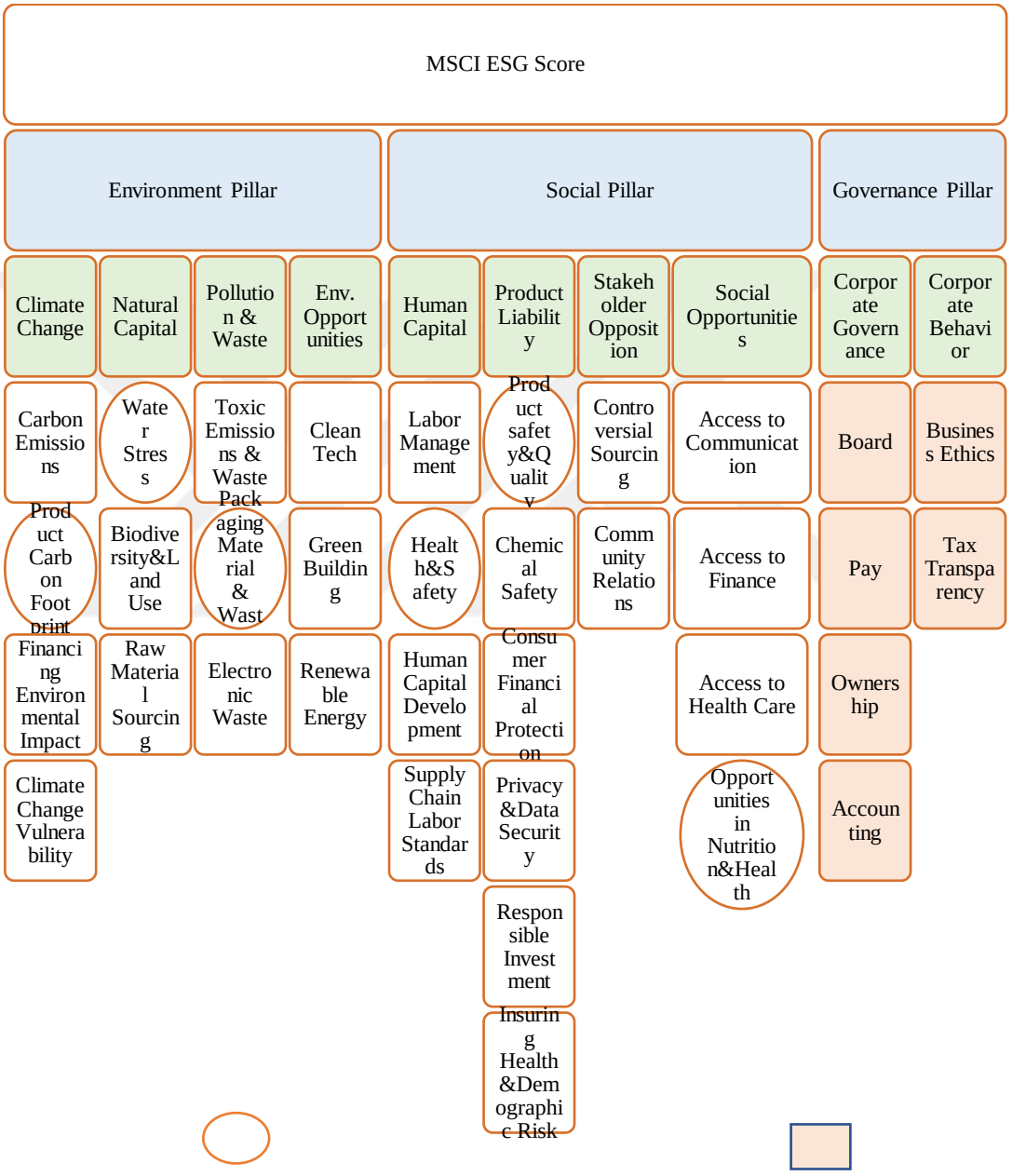
Note: This figure is taken from "JSE's Sustainability and Climate Disclosure Guidance", retrieved from https://www.jse.co.za/our-business/sustainability/jses-sustainability-and-climate-disclosure-guidance.

3.1.3.3.6. MSCI KLD 400 social index

An organization that ranks firms listed on the American Stock Exchange and only concentrates on CSR measurement is called Kinder, Lydenberg and Domini (KLD). The index was the first Socially Responsive Investing (SRI) index, and it was introduced in 1990 (2022). 35 ESG (environmental, social, and governmental) Key Concerns are evaluated, with an emphasis on how a company's basic operations

connect with issues unique to its industry that could provide serious risks and possibilities for the organization. The following figure displays the major ESG problems (MSCI, 2022):

Figure 11 *MSCI ESG*



Note: This figure is taken from "ESG Ratings Key Issue Framework" of MSCI, retrieved from https://www.msci.com/our-solutions/esg-investing/esg-ratings/esg-ratings-key-issue-framework.

The MSCI KLD 400 Social Index is made to expose investors to businesses with strong MSCI ESG Ratings while eliminating those whose goods might have unfavorable social or environmental effects. It bans businesses engaged in adult entertainment, nuclear power, cigarettes, alcohol, gambling, military and civilian guns, as well as those that produce genetically modified organisms (MSCI, 2022).

3.1.3.3.7. Business in the community corporate responsibility index (BitC CRI)

Business in the Community (BitC) is a non-profit organization that offers companies basic management applications, consulting on corporate value creation and responsible management. BitC is an institution and has more than 600 corporate members (some of which are companies traded in FTSE 100 index) with more than 2000 customers around the world and with more than 90 global network. In addition, approximately 15 million employees in more than 200 countries are also use its services via internet (BitC, 2022).

Business in the Community Corporate Responsibility Index (BitC-CRI), constituted by BitC in Australia. Above all, it aims to develop the social responsibility awareness of the companies and incorporate this awareness in to the company. For this purpose, the companies' social and environmental impacts are measured and reported. While FTSE4Good and Dow Jones Sustainability Index are investment indices, BitC-CRI deals with administrative issues. While some investment-based indices invest on behalf of clients in things like pension funds, BitC-CRI seeks to support corporate growth in the area of social responsibility. Every industry is chosen

when choosing the companies to be included in the index, independent of factors like industry or company niche. The selection criteria for the index are grouped under four main headings. These; society, environment, market conditions and business conditions.

3.1.3.3.8. Other indexes and databases

In this subsection, other than widely used index studies and databases explained in the previous section are explained in detail and summarized in Table 11.

Table 11 *Other Indexes and Databases*

Index	Target
Canadian Social Investment Database	The evaluation of companies traded on the Canadian Stock Exchange in terms of social responsibility
Jantzi Community Index	The social and environmental assessment of companies operating in Canada
PRESOR	Evaluation of ethical and responsible behavior from the point of management
Environmental Sustainability Index	The evaluation of countries in environmental sustainability progress

FTSE Global Climate Index	Designed to reflect the performance of indexes incorporating Climate Change considerations
MSCI Global Climate Index	The evaluation of firms initiatives on climate change
MSCI Global Environment, Society, Management Index	The evaluation of companies under environmental, social and managerial headings
Boston College Reputation Index	The evaluation of firms' social citizenship, working conditions and executive

3.1.3.4. Index studies in Turkey

The first initiative on corporate social responsibility in Turkey impartible as "Corporate Governance Principles" adopted by Capital Market Board (CMB) and afterwards "Corporate Governance Index" constituted by BIST. Again, since 2014, BIST has been published "Sustainability Index".

3.1.3.4.1. BIST sustainability index

Studies on the measurement of social responsibility investments in Turkey appears to have increased in recent years. In this context, a cooperation agreement was signed between Istanbul Stock Exchange and "Ethical Investment Research

Services Limited" on the performance in corporate governance, environmental, and social issues. At the first stage Akbank, Arçelik, Aselsan, Garantibank, Koç Holding, Migros, Petkim, Sabancı Holding, TAV Airports, Tofaş Automotive Factories, Turkcell, Tüpraş, Turkish Telecom, Vakıflar Bank, and Yapı Kredi Bank rank among BIST Sustainability Index.

As of 2021 valuations, Refinitiv's sustainability valuation results are used within the scope of the agreement between Istanbul Stock Exchange and Refinitiv Information Limited ("Refinitiv"), in determining the companies to be included in the BIST Sustainability Index.

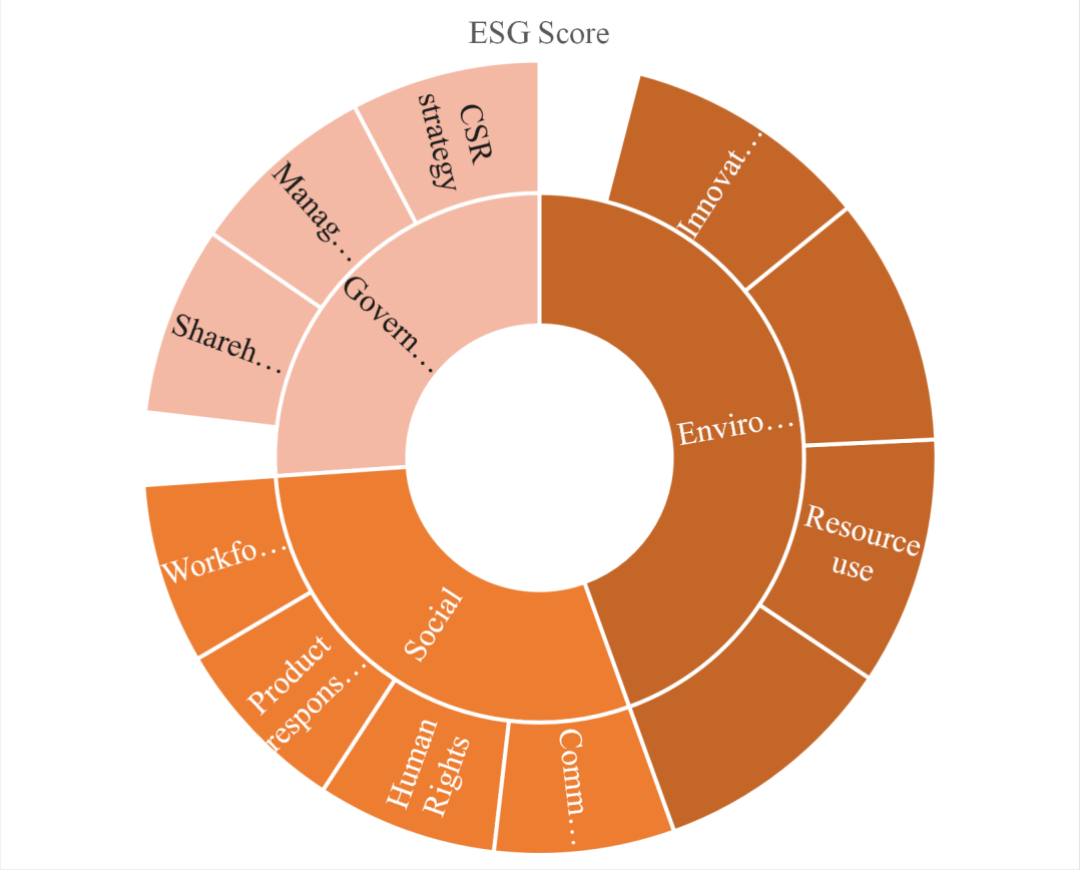
Only "publicly available" information is used in valuations, and Istanbul Stock Exchange covers the cost of Refinitiv data utilized in the context of the Index (BIST, 2022).

There are four index periods per year for the BIST Sustainability Index: January-March, April-June, July-September, October-December. For the index, which started with the valuation of companies included in the BIST 30 index in 2014, as of 2022, voluntary companies that are traded in the Star Market, Main Market and Sub-market or included in the BIST Sustainability Index are evaluated.

Over 630 company-level ESG metrics are captured and calculated by Refinitiv, and a subset of 186 of the most relevant and similar variables for each industry fuel the process of evaluating and scoring companies overall (Refinitiv, 2022). These are categorized into ten categories that reformulate the three pillar scores

and the final ESG score, which reflects the company's ESG performance, commitment, and efficacy based on publicly available data (Refinitiv, 2022). The category scores are combined into three pillar scores: corporate governance, social responsibility, and the environment. The ESG pillar score is a relative total of the industry-specific environmental and social category weights. The weights for governance are constant across all sectors. The normalized pillar weights are converted to percentages between 0 and 100 (Refinitiv, 2022). Categories are shown in the figure below:

Figure 12 *ESG Categories of Refinitiv*



Note: This figure is taken from "Environmental, Social and Governance Scores From Refinitv", retrieved from https://www.refinitiv.com/content/dam/marketing/en_us/documents/methodology/refinitiv-esg-scores-methodology.pdf.

3.1.3.4.2. Corporate governance index

The Turkish Capital Market Board (CMB) accepted the Corporate Governance Principles on July 4, 2003, they were published in the Official Gazette on July 12, 2007, and on August 31, 2007, the computation of the Corporate Governance Index developed by the Istanbul Stock Exchange began. (BİST, 2022).

The Istanbul Stock Exchange marketplaces' share prices and return performance of businesses with corporate governance compliance scores of at least 7 out of 10 and at least 6.5 out of 10 for each major heading are measured by the BIST Corporate Governance Index (BİST, 2022).

The grade for compliance with the Corporate Governance Principles is given by the rating agencies in the list of rating agencies determined by the Capital Markets Board (CMB), as a result of the evaluation of the company's compliance with all corporate governance principles as a whole (BİST, 2022).

3.2. Financial Performance Measurement

Financial performance refers to the changes in the financial situation of the firms and the degree of implementation of the financial outcomes resulting from measurements or management decisions by the members of the organization (Carton & Charles, 2007). Financial performance measuring has great importance for companies as it is closely related to the issues such as; financial analysis and planning, capital budgeting, valuation, control of company management and

determination of incentive premiums. Accurate measurement of financial performance in companies enable them to continue their activities and plays an important role to create value in their economy. Such an assessment is in other words performance measuring means investing in companies has great importance for investors who are considering it as much as managers.

Performance measurement of organizations, in general can be divided into two groups as financial performance and measurement of social performance. Company managers often prefer to use the indicators that are easy to measure and with an installed measuring system. In this sense, the most important reason for the widespread use of financial performance measurement is that it is precise and includes objective criteria. A measure of financial performance that provides a holistic view of the organization's performance directly expresses the firm's long-term goals (Coşkun, 2006). Many companies still use financial performance to evaluate performance and motivate employees. Many of the financial performance measures are used to evaluate the performance of companies remain valid.

Although financial performance measurement remains important for companies, it also receives criticisms for reasons such as not being able to reveal the value of intangible assets and predictive inability to detect changes quickly, and being historical and retrospective. All these criticisms can be summarized in five articles in general:

a. Financial performance measurement is generally oriented towards short-term goals. For this reason, future issues such as R&D, maintenance, training and investment cause it to be delayed or remain in the background.

b. Financial performance measurement is considered unsuccessful in measuring factors such as employee morale, customer satisfaction, quality of goods and services.
c. Financial performance measurement simply states what has happened in the past is insufficient to make predictions about the future.
d. Because it takes a long time to collect and report financial data, it is insufficient in situations where decision-making is required.
e. Financial results show whether the problem exists but does not provide direct information about the source of the problem.

In the face of these increasing criticisms, financial performance measurement has started to turn to value-oriented measures such as the analysis of cash flows and value creation and from this point of view, the concept of shareholder value has come to the fore, and value-based performance measures have been developed.

With the increase in the diversity and prevalence in business understanding of the criteria used in performance measurement parallel with the developments in technology, different approaches to these criteria have been made and different grouping methods have been used in the literature. In general, financial performance measures; traditional financial performance measures based on accounting and value-based contemporary financial performance can be grouped under two main headings. Due to the subject and content of our study, the accounting-based performance indicators specified in the "Public Administrations Financial Analysis Guide" published by the Ministry of Finance General Directorate of Accounts will be explained in the next section.

3.2.1. Financial analysis guide for public administrations

The financial performance of the municipalities is briefly the success they show in financial matters. The more successful the municipalities are in collecting their own revenues and making their expenditures, the higher their financial performance. The financial performance measurement process in municipalities is two-stage. In the first stage, financial performance indicators are determined, and in the second stage, the methods in which these indicators are used are determined and financial performance is measured. However, in both stages, there is a set of indicators that everyone agrees on, and the absence of a method (Sağbaş, Çalışkan, & Hazman, 2006).

One of the important studies on the financial performance measurements of municipalities in our country is the Ministry of Interior General Directorate of Local Administrations Performance Measurement Project in Municipalities (BEPER). Within the scope of the related project, the financial performance of the municipalities was measured under the light of 20 criteria. However, the study was limited to the years 2002, 2003 and 2004.

In the BEPER project, a target has been determined for each of the 20 criteria, as seen in Table 12 (Ağcakaya, 2009). The 20 criteria used are grouped under three headings. These; financial indicators are the distribution of revenues and the distribution of expenditures during the financial year.

Table 12 *Financial Performance Indicators in the Performance Measurement Project in Municipalities*

	Financial Indicators	**Target**
1	Year End Financial Assets/Person	As high value as possible
2	Year End Payables/Person	Low value
3	Budget/Person	For comparison purposes
4	Final Account/Person, Actual Expenditures/Person	As high value as possible
5	Central Taxes Share/Person	For comparison purposes
6	Contribution to Expenditures/Person	As high value as possible
7	Budget Realization (%)	0%
8	Final Account Deficit or More/Income (%)	Min. 0%
	Distribution of Revenue Earned in the Fiscal Year %	
1	Internal Revenue Generating Capacity	As high value as possible
2	Income from Scheduled Services	For comparison purposes
3	Immovable Revenues (%)	For comparison purposes
4	Domestic and Foreign Borrowing	For comparison purposes
	Distribution of Expenditures %	
1	Management	For comparison purposes
2	Police and Fire Brigade Expenses	For comparison purposes
3	Environmental Protection and Transportation and Water and Sewerage	For comparison purposes
4	Social Aid and Health	For comparison purposes
5	Technical Works	For comparison purposes

6	Education, Culture and Public Relations	For comparison purposes
7	Agriculture and Economic Development	For comparison purposes
8	Transfer Expenditures	For comparison purposes

Note. This table is taken from *"Yerel Yönetimlerde Performans Ölçümü ve Benzer Tip Belediyelerde Mali Performans Uygulamaları"*, S. Ağcakaya, *Sosyo Ekonomi*, 2009, p.27.

The BEPER project is the most comprehensive study on performance measurement in local governments. However, due to the fact that it was not continued and did not allow comparison, in this study, while the financial performance measurement criteria were created, the "Financial Analysis Guide for Public Administrations" prepared by the General Directorate of Accounts of the Ministry of Finance was used in the formation of Financial Performance capitals.

Financial Analysis; It is the process of examining and interpreting the items in the financial statements of one or more periods, in accordance with the purposes of the relevant parties, both among themselves and with the whole, by using various analysis techniques, and evaluating the current conditions (T.C. Maliye Bakanlığı Muhasebat Genel Müdürlüğü, 2022).

Techniques Used in Analysis of Public Financial Statements:

a. Comparative Analysis (Horizontal Analysis)

b. Analysis with Percentage Method (Vertical Analysis)

c. Trend Percentages Analysis (Trend Analysis)

D. Ratio Analysis.

In this section, ratio analyzes used in financial performance measurement will be discussed.

3.2.1.1. Ratio analysis

One of the methods widely employed in the study of financial accounts is ratio analysis. The comparison of at least two groups or classes in the data in the financial statements using proportioning is known as a ratio analysis. Comparing individual financial statement items to ratio outcomes is less insightful.

Issues to be considered while performing ratio analysis;

1. It is possible to calculate many ratios from financial statements. However, the purpose of calculating the ratio should be to produce interpretable information. For this reason, items that are in a meaningful relationship should be selected and proportioned to each other, and the use of meaningless ratios should be avoided.
2. The effects of seasonality and cyclical movements on rates should be taken into account when interpreting the results, as events that affect the course of the economy more than they should, differently and unexpectedly may lead to misleading results.
3. The results of the ratio should be interpreted by taking into account the amounts of the values in the ratio.

In this context, 23 indicators have been determined to be used in the ratio analysis of public financial statistics tables (Muhasebat Genel Müdürlüğü, 2022).

1. **Budget Balance Indicator**: Regarding the budget balance in clause “h” of article

13 of the Law No. 5018, “It is essential to ensure the balance of income and expenditure in the budgets.” there is a regulation. Therefore, it is primarily expected from the indicator to be equal to 0. Budget surplus is a positive economic situation. It indicates that public institutions are earning more than expected or spending less than expects. Therefore, results of this indicator greater than 0 are also acceptable.

Budget Balance Indicator= Budget Balance/Budget Revenues

While calculating the budget balance indicator, 800 Budget Revenues Account and 830 Budget Expenditures Account are used.

2. **Activity Balance Indicator:** The activity balance indicator measures how much of the activity balance calculated by using the revenues and expenses accrued by public administrations in a financial year corresponds to the revenues accrued in the relevant year.

Activity Balance Indicator= Activity Balance/Operating Income

While calculating the activity balance indicator, 600 Incomes Account and 630 Expenses Account are used.

3. **Liability Indicator:** The liability indicator measures how much of the accrued revenues can fulfill all liabilities. It is expected from the indicator to be as low as possible. Because the less part of the revenues are allocated to the obligation payments, the more public services will be able to be fulfilled with the remaining income from the obligation payments.

Liability Indicator=Total Liabilities/Operating Income

When calculating the liability indicator, account groups of 3 Short-Term Liabilities, 4 Long-Term Liabilities and 600 Income Accounts are used.

4. **Liability Distribution Indicator:** For public administrations, measuring how

much of the liabilities are short-term and how much is long-term is important in terms of cash planning. That is, the excess of short-term liabilities means that the administration will need cash in the near future. If the administrations do not follow the distribution of their liabilities, they may have to endure secondary liabilities such as late fee and default interest arising from failure to fulfill their obligations, or they may have to resort to high-cost debt instruments in order to finance the liabilities.

Liabilities Distribution Indicator= Current Liabilities/Total Liabilities

When calculating the liability distribution indicator, the total liability amount found by adding 3 Short-Term Liabilities account groups and 3 Short-Term Liabilities and 4 Long-Term Liabilities account groups is used.

5. **Overdue Liabilities:** The overdue liabilities indicator measures the ability of public administrations in liability management. It is expected from this indicator to be as low as possible, since the full and timely fulfillment of the obligations will create new liabilities such as late fee, default interest and similar nature. With the help of this indicator, it is possible to evaluate the maturity and overdue liabilities of public administrations, and thus to prevent the emergence of new liabilities.

Overdue Liabilities Indicator= Overdue Liabilities/Total Liabilities

When calculating the overdue liability indicator, 368 Overdue, Deferred or Installed Taxes and Other Liabilities Account and 438 Public Deferred or Installed Payables Account are used.

6. **Overdue Receivables Indicator:** The overdue receivables indicator measures how much of the uncollectible receivables of corporations and consolidated sectors correspond to their income. High overdue receivables is not a positive economic situation. What is expected from this indicator is to give as low results as possible.

Because a low indicator result means that the collection ability of the receivables is high.

Overdue Receivables Indicator= Overdue Receivables/(Operating Income-Transfers From The Central Government

When calculating the overdue receivables indicator, 121 Non-Performing Receivables from Income and 122/222 Non-Performing and Non-Performing Receivables from Income are used. Since transfers received from the center are not likely to turn into overdue receivables, the amounts related to transfers received from the central government are deducted from the operating income while calculating this indicator.

7. **Accrual Based Personnel Expenditure Indicator** Personnel expenses; It includes the payments made in cash on the basis of payroll to public personnel or to persons who are employed or whose services are utilized even if they are not public personnel, or to others, and the Premium expenses made to the Social Security Institution within the scope of social security on behalf of these persons. Payments made from this expenditure item, which has very little flexibility, are determined within the framework of personnel laws. The main factor causing the increase in these expenditure items, which increase year by year, is the employment policy of the state. Therefore, analyzing personnel expenditures is very important in terms of both determining these policies and evaluating their results.

The fact that personnel expenditures are below certain levels may cause disruptions in the fulfillment of public services, while their excess may lead to inefficiency in public expenditures, hidden unemployment and disruption of public

services. For this reason, personnel expenditures should be evaluated well and carried out in an effective, economical and efficient manner.

Accrual Based Personnel Expenditure Indicator= Personnel Expenditure/Operating Income

While calculating the accrual-based personnel expenditures indicator, 630.1 Personnel Expenditures, 630.2 State Premium Expenditures for Social Security Institutions and 600 Income Accounts are used.

8. **Cash Based Personnel Expenditures Indicator:** The personnel expenditure indicator, calculated with the data compiled from the cash-based accounting system, not only measures the share of cash or deduction payments made to the personnel in budget revenues, but also measures how much of the expenses accrued to be transferred to the personnel are converted into cash when evaluated together with the indicator results compiled from the accrual-based accounting data.

Cash Based Personnel Expenditure Indicator= Personnel Expenditure/Operating Income

While calculating the cash-based personnel expenditures indicator, 830.1 Personnel Expenditures, 830.2 State Premium Expenditures for Social Security Institutions and 800 Budget Revenues are used.

9. **Indicator Of The Share Of Personnel Expenditures In Expenses:** It is not sufficient to measure how much of the revenues are allocated to personnel expenditures in terms of personnel expenditures. The share of personnel expenditures in expenditures should also be measured and evaluated.

Share Of Personnel Expenditures In Expenses= Personnel Expenditures/Operating Expenses

While calculating the share of personnel expenditures in expenses, 630.1 Personnel Expenditures, 630.2 State Premium Expenditures for Social Security Institutions and 630 Expenses Account are used.

10. Accrual Based Interest Expense Indicator: Interest expenses are expenses incurred in proportion to the amount, risk and maturity of the debt for the use of borrowed Money and are an important indicator as it shows the cost of government borrowing. Interest expenses are expenses that are not economically beneficial for a country, on the contrary, that create a decrease in disposable income and are a financial burden. The fact that these expenses are high as a result of the decision to create a financing source through borrowing harms both the financial situation of the country and its reputation in the international arena. Therefore, the results of this indicator should be carefully evaluated within the scope of financial analysis of public financial statistics tables.

Accrual Based Interest Expense Indicator= Interest Expenses/Operating Incomes

While calculating the accrual-based interest expense indicator, the 630.4 Interest Expenses account group and 600 Incomes Account are used.

11. Cash Based Interest Expense Indicator: For public administrations, it is not sufficient to analyze accrued interest expenses alone. The cash-based interest expense indicator is an important indicator that measures how much of the budget revenues are paid as interest expenses.

Cash Based Interest Expense Indicator= Interest Expenses/Budget Incomes

When calculating the cash-based interest expense indicator, the 830.4 Interest Expenses account group and the 800 Budget Revenues Account are used.

12. Debt Indicator: The borrowing indicator measures how much of the domestic

and foreign debts of public administrations in the relevant year and the related interest expenses correspond to their operating income. The purpose of the borrowing indicator is to increase predictability, transparency and accountability in borrowing policies and practices, and to monitor the sensitivity of the debt stock to risks.

Borrowing Indicator= Domestic-External Debt Interest And Principals/Operating Incomes

Public administrations can borrow from domestic and foreign markets. Therefore, when calculating the borrowing indicator, account groups of 30 Short-Term Domestic Financial Debts, 31 Short-Term External Financial Debts, 40 Long-Term Domestic Financial Debts, 41 Long-Term External Financial Debts and 600 Incomes Account are used.

13. Indicator Of Revenues To Cover Liabilities And Expenses: The Indicator of Revenues to Cover Liabilities and Expenses, measures the ability of accrued operating income to cover liabilities and accrued expenses.

It is expected from the indicator to give results close to 1. Because only in this way, it can be concluded that public institutions have sufficient operating income and will not encounter difficulties in financing their expenses and liabilities.

Indicator Of Revenues To Cover Liabilities And Expenses= Total Revenues/(Total Expenses +Principal Repayments Of Liabilities)

While calculating the Indicator of Liability and Coverage of Expenses, the main account groups of 600 Incomes Account, 630 Expenses Account and 3 Short-Term Liabilities and 4 Long-Term Liabilities are used.

14. Dependency Indicator: The dependency indicator is an indicator that reveals meaningful results for local administrations. While some of the revenues that local administrations need to maintain their assets and services are the shares transferred

from the central government, the remainder is the taxes collected, which is defined as own income, the revenues obtained from the rental, sale or other use of the movable and immovable properties of the municipality, and all kinds of initiatives revenues to be provided in return for participation and activities. A municipality's ability to provide services at an adequate level and quality; in addition to having sufficient incomes, it is directly related to high self-income. The financial autonomy of the municipalities increases as their own revenues increase without being dependent on the central government, and the increased financial autonomy contributes to the municipality's ability to make better service planning, to act more comfortably in economic terms and to provide better service. Therefore, the fact that municipalities have less or more own revenues in their total revenues is used as a criterion to measure the dependence of local administrations on the central government.

Dependency Indicator= Transfers From Central Government/Budget Revenues

While calculating the dependency indicator, 800 Budget Revenues Account and 800.5.2.2.51 Share from Central Government Tax Revenues Account are used.

15. Tax Income Indicator: The tax revenues indicator measures the share of taxes and similar revenues in total revenues, which are the main source of income of the state and collected from citizens to meet the forced, unrequited and public services expenses.

Tax Revenues Indicator= Tax And Similar Revenues/Budget Revenues

When calculating the tax revenues indicator, 800.1 Tax Revenues Account and 800 Budget Account are used.

16. Non-Financial Asset Indicator: The non-financial asset indicator measures the

share of the increase in the non-financial fixed assets of public administrations within the budget revenues. The relationship between the budget revenues of public administrations in the relevant year and their non-financial assets is evaluated with the help of this indicator. It is not meaningful to make evaluations as a positive economic situation for the non-financial asset indicator to be low or high. During the evaluation of this indicator, the nature of the acquired non-financial assets should be taken into account. The indicator is expected that the acquisition of non-financial fixed assets does not exceed budget revenues. Because it is important for public administrations not to cause a budget deficit while financing these assets, as well as acquiring non-financial fixed assets in economic terms.

Non-Financial Asset Indicator= Increase In Non-Financial Assets/Budget Revenues

The increase in non-financial fixed assets is calculated by deducting the inventory amounts in the beginning of the period balance sheet from the inventory amounts of 15 Inventories, 25 Tangible Fixed Assets, 26 Intangible Assets and 29 Other Fixed Assets at the end of the period.

17. Collection-Accrual Indicator: Collection-accrual indicator; measures how much of the accrued revenues of public administrations are collected and converted into budget revenue, and thus, the collection ability of public administrations. All accrued revenues expected from the indicator could be collected, that is, the indicator result should be as close to 1 as possible.

Collection -Accrual Indicator= Budget Revenues/Activity Revenues

It is not possible for every income accrual included in operating income to be converted into cash and recorded as budget income. Therefore, in order to reach more accurate results while calculating the indicator, the revenues that are included in the

operating income and cannot be converted into budget income due to their nature should be eliminated from the operating incomes. Likewise, transactions recorded as budget revenue without accrual should be eliminated from budget revenues.

Therefore, while calculating the Collection-Accrual Indicator, the details of 800 Budget Revenues Account, “800.8 Collection from Receivables”, and “600.11 Revenues from Changes in Value and Quantity” and “600.25 Revenues from Non-Financial Assets Received from Public Administrations” details are taken into account will be ignored.

18. Tax And Similar Income Collection-Accrual Indicator: Taxes and similar revenues are the main source of income of public administrations and are collected by force. Therefore, it is important to analyze the accrual-collection amounts of these revenues separately and to evaluate the capacity of public administrations to collect their main revenues by force. What is expected from the indicator is that the accrued tax revenues can be collected as much as possible, that is, the indicator result should be close to 1.

Tax And Similar Income Collection-Accrual Indicator= Tax Revenues Collected/Tax Revenues Accrued

While calculating the Tax and Similar Income Collection-Accrual Indicator, 800.1 Tax Revenues Account and 600.1 Tax Revenues Account are used.

19. Payment-Accrual Indicator: The payment-accrual indicator measures how much of the expenses accrued by public administrations in the relevant year are able to pay. What is expected from the indicator is to accrue all expenses and to pay the accrued operating expenses as much as possible, that is, to have results close to 1.

Payment-Accrual Indicator= Budget Expenses/Operating Expenses

It is not possible for every expense accrual included in operating expenses to be converted into cash and recorded as a budget expense. To give an example; While the decrease in value and amount determined as a result of the valuation process is included in the operating expenses as “Expenses for Changes in Value and Quantity”, it is not included in the budget expenses since no cash or deduction is made. Therefore, in order to reach more accurate results while calculating the indicator, the expenses that cannot be converted into budget expenses due to their nature, should be eliminated from operating expenses. Likewise, transactions recorded as budget expenses without accrual should be eliminated from budget expenses.

Therefore, when calculating the Payment-Accrual Indicator, 830 Budget Expenditures Account, 830.6 Capital Expenditures and 830.8 Lending details are taken into account. Similarly, 630 Expenses Account is also 630.11 Expenses of Changes in Value and Quantity, 630.12 Expenses due to Rejection and Return of Income, 630.13 Depreciation Expenses, 630.20 Expenses due to written off receivables, 630.25 Expenses arising from Non-Financial Assets Transferred to Public Administrations gratuitously, 630.30 Current Expenses Made within the Scope of the Project, 630.99 Other Expenses are taken into account, ignoring the details.

20. Income Forecast Indicator: Income estimation indicator measures how much of the revenue that public administrations anticipate when preparing their budgets can collect in the relevant year, and establishes a relationship between the revenue estimation in the budget and the actual revenues. What is expected from the indicator is that it is equal to 1. When the income forecast indicator is equal to 1, it means that the public administration has achieved as much income as it has targeted for that year

and will be able to spend as planned with the budget. In addition, the public administration was effective in the estimation and budgeting process, aware of its institutional qualities and capacity, and made possible predictions.

Income forecasting indicator is evaluated as a performance indicator as well as being a financial indicator with its feature of measuring the success of the administration in the budgeting process. Therefore, the fact that a public administration's income estimation indicator is close to 100% measures the success of the administration in budgeting and forecasting, while the fact that it gives more than 100% or incomplete results for several years in a row means that the public administration should carry out more effective studies in the forecasting and forecasting process.

Income Forecast Indicator= Budget Revenues/Budget Revenue Forecast

While calculating the income estimation indicator, the relevant year's budget revenue estimation amount of the public administration or the consolidated sector, which is evaluated within the scope of the financial analysis, and the 800 Budget Revenues Account as of the end of the year are used.

21. Expense Forecast Indicator: The expenditure estimation indicator measures how much of the expenditure foreseen by the public administrations when preparing their budgets is paid in the relevant year, and establishes a relationship between the expenditure estimation in the budget and the expenditures paid. What is expected from the indicator is that it is equal to 1. This means that the public administration is spending as much as it targeted that year, and the public administration is effective in the estimation and budgeting process, is aware of its institutional qualities and capacity, and makes predictions that can be realized.

If the result of the expense estimation indicator is above 1, it is considered as an unfavorable economic situation. Because the public administration has made more budget expenditures than foreseen in the relevant year, and this may cause the public administration to cut back on its expenditures or public services, or to create new financing resources by borrowing.

Expense Forecast Indicator= Budget Expenditures/Budget Expenditure Forecast

When calculating the expenditure estimation indicator, the relevant year's budget expenditure estimation amount of the public administration or consolidated sector, which is evaluated within the scope of financial analysis, and the 830 Budget Expenditures Account as of the end of the year are used.

22. Income Per Capita Indicator: This indicator, which was developed to calculate the per capita income of a municipality, shows the part of the incomes of the municipalities that can be spent for a citizen living within the borders of the municipality. Therefore if the result of this indicator is high, it means that the quality and quantity of public services that municipality can provide to the citizens may be high.

Income Per Capita Indicator= Budget Revenues/Population

While calculating the per capita income indicator, 800 Budget Revenues and population data published by TURKSTAT are used.

23. Indicator Of Expenses Per Capita: This indicator, which was developed to calculate the per capita amount of the budget expenditures realized in the relevant year within the borders of a municipality, shows the part of the budget expenditures of the municipalities spent for a citizen living within the borders of the municipality. If the result of this indicator is high, it can be interpreted that the quality and quantity of

public serviced provided by that municipality to the citizens are high, while the opposite situation may be encountered in case of high inefficient expenditures of the municipality that are not related to public services. Therefore, while evaluating the indicator result, the nature of the budget expenditures should also be taken into account.

Indicator Of Expenditure Per Capita= Budget Expenditures/Population

While calculating the per capita expenditure indicator, 830 Budget Expenditures and population data published by TURKSTAT are used.

4. INTEGRATED REPORTING IN PUBLIC SECTOR AND CONCEPTUAL FRAMEWORK

4.1. The Concept of Public Sector and Fundamental Changes and Developments

In this section, explanations within the scope of the conceptual framework of the basic components of integrated reporting in the public sector and the public sector have been tried to be discussed.

4.1.1. Public and public sector concept

Today, the weight of the state in economic activities has started to increase and the quality of the services offered has changed, and the amount of public expenditures for these services has also increased. The public sector was emerged and developed as a result of the increasing economic and social activities of the state, as well as the failure of the market to provide optimal resource allocation. The organizational structures of the states have evolved, their budgets have expanded, their workforces have grown, and their operations have gotten more complex as a result of the growth of the public sector (Tosunoğlu, 2013).

The definition of the public sector varies around the world and between disciplines, reflecting differing worldviews. Consequently, there is no agreement on what the public sector is and what it should be like (Jones & Pendlebury, 2010). In general, the public sector is defined in the simplest way as the whole of the economic affairs carried out by the state, and the social, economic and financial tasks it undertakes are fulfilled through its various institutions (Eryılmaz , 2013). The public sector can be described in two ways, narrowly and broadly. In the narrow sense, the

public sector includes central government institutions; in a broad sense, it refers to central government institutions, local government institutions, parafiscal institutions and public enterprises (Akdoğan, 2007).

The public sector, which has different definitions, has certain distinctive features. These distinguishing features are (Bozdoğan, 2007):

- Public sector organizations do not operate for profit, but they can create a source of funds over costs to ensure the continuity of their activities.
- The general objectives of public sector organizations are community and service to it.
- The areas in which public sector organizations operate are indivisible services such as security, justice, defense, infrastructure and semi-divisible service areas such as education and health.
- The expenditures of public sector organizations are financed by the state.
- Employees of public sector organizations are recruited through appointment and selection.

Public sector organizations, which differ from other organizations with their management structure and capital structure characteristics, are subject to distinction in national and international areas. It is possible to define the public sector in a healthier way by classifying it.

4.1.2. Classification of public sector institutions

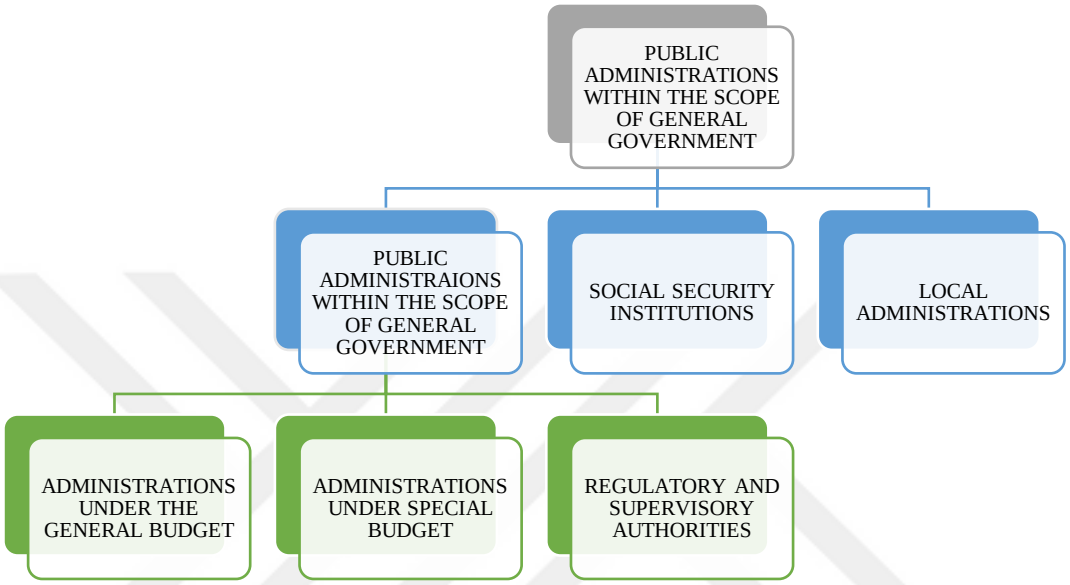
The basis of the classification of national economies in the international arena is the System of National Accounts (SNA93) prepared by the United Nations, The European System of Accounts (ESA95) prepared by European Community Commission and the Government Finance Statistics Manuel-GFSM2001) prepared by International Monetary Fund (Bozdoğan, 2007).

In the classification of the national economy, the scope of the public sector consists of public administrations and state-owned financial and non-financial companies within the scope of general government. It is divided into four sub-sectors: General Administration and Central administration, Local administration, Social security institutions and state administration. Since there is no provincial government in Turkey, the general government classification is divided into three sub-sector (Sevim, Bozdoğan, & Topakkaya, 2009).

In order to establish a public financial management and control system in line with international standards and European Union norms, institutions and organizations were determined in a more systematic way with the Law No. 5018, which entered into force in 2005. By expanding the scope of the public sector, administrations were redefined and classified according to their scope and budget types. According to the scope of the Article 2 of the Law No. 5018, the public administrations that are subject to the law in terms of administration are determined according to international standards and are divided into 3 parts under the general administration title as central administration, social security institutions and local

administrations, as shown in the Figure 13 below classified in terms of public administrations and budgets (TBMM, 2022).

Figure 13 *Public Administrations Subject to the Law in Terms of Administration*



Note: This figure is taken from "5018-Kamu Mali Yönetimi ve Kontrol Kanunu", published by TBMM, retrieved from https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=5018&MevzuatTur=1&MevzuatTertip=5.

Administrations within the scope of the General Budget generally produce public goods and services, which are fully public goods, cannot be divided, cannot be priced, and are subject to compulsory consumption. The general budget defined in Article 12 of Law No. 5018 is included in the state legal entity and constitutes the largest part of the state budget (Pehlivan, 2008).

Administrations in the Scope of Special Budget are public institutions that are excluded from the general budget, allocated income and authorized to spend. Special

budget administrations have special revenues to cover their expenses. In general, they have to cover all their expenses with their own income. However, revenues of special budget administrations can only meet a small part of their expenditures. They receive help from the general budget because they do not eat their own income.

Administrations within the scope of the Regulatory and Supervisory Agency Budget are organizations that are organized as a board, institution or supreme council with special laws in the Law No. 5018. These institutions prevent monopoly by making arrangements to ensure efficient and competitive operation of the markets (Moğol, 2013).

Public administrations includes within the scope of local administrations, the municipality, the special provincial administration, and the unions and administrations that are affiliated with or established by them, to which they are members (TBMM, 2022).

4.1.3. Current reporting order in the public sector in Turkey

In this part of the study, the regulations regarding the reporting in the Law No. 5018, which provides the current reporting infrastructure in Turkey, the regulations that allow the preparation of Integrated Reporting, and the tables, reports and information that ensure the realization of the principles of financial transparency and accountability in the public sector for Integrated Reporting information production is given.

a. Corporate Reporting Order in Public Institutions in Law No. 5018

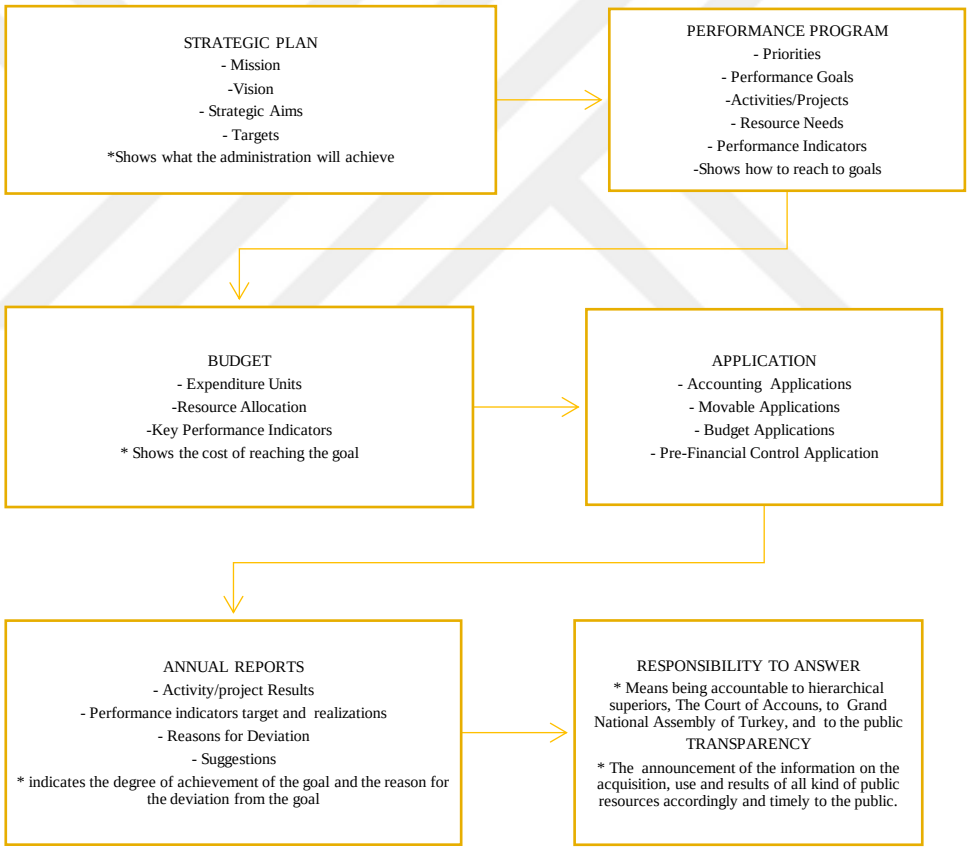
Due to the limited scope of Law No. 1050, which was passed in 1927, ideas like transparency, accountability, and reporting were left in the background, unable to provide financial discipline, and insufficient in light of evolving conditions, public financial management and control system in accordance with international standards, and EU norms. Law No. 5018 was released in 2003 to establish This law introduced new regulations within the framework of efforts to restructure public administration, bringing to the forefront functions left in the background by Law No. 1050, including efficiency, productivity, transparency, accountability, and reporting (Moğol, 2013;Saraç, 2005).

In terms of getting and using public resources, Law No. 5018 is efficient, economical, and effective. It also imposes the obligation to be honest and accountable in its accounting and reporting. (TBMM, 2022). The performance-based budgeting approach makes sure that these concepts are put into practice. The strategic plan, performance program, and activity reports are the foundational components of the performance-based budgeting system. A connection is made between the fundamental policy goals of public institutions and their resource requirements through strategic plans and performance programs. Annual reports are used to inform the public about the progress made toward the goals set forth in the aforementioned documents. According to the Law No. 5018 of public institutions (TBMM, 2022); creating the Strategic Plan as well as the Performance Program, and the results of budget implementation, as well as the financial situation, targets, activities, and expectations for the next six months, are disclosed to the public with the Corporate Financial Status

and Expectations Report, twice a year in semi-annual periods, in order to increase transparency and accountability in the execution of activities and budget applications.

According to the Law No. 5018, the connection and flow of the strategic plan, performance program and annual report are shown in the figure below (TBMM, 2022):

Figure 14 *Strategic plan, performance program, and annual report connection*



Note: This figure is taken from “5018-Kamu Mali Yönetimi ve Kontrol Kanunu”, published by TBMM, retrieved from https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=5018&MevzuatTur=1&MevzuatTertip=5.

4.2. Integrated Reporting Concept and Targets in Public Sector

The Integrated Report is defined as "a concise presentation of how the organization's strategy, corporate governance, performance and future prospects will create value in the short, medium and long term" (IIRC, 2022). Integrated Reporting aims to help stakeholders make better decisions by enabling organizations to present information to their stakeholders by creating links between information and how this information affects their ability to create value, in a more effective and holistic way (Aras & Sarıoğlu, 2015).

The World Bank Group, in a presentation on "Integrated Reporting in the Public Sector" to the Financial Accounting Standards Advisory Board in December 2016, revealed the inadequacy of current financial reporting. The reason for the inadequacy is that information users and stakeholders want to know the responsibility of managers, the use of financial resources, the link between future sustainability and how organizations create value. As a solution, Integrated Reporting, which includes environmental, social, governance, sustainability information and offers a holistic perspective with integrated thinking, is recommended instead of existing financial reporting.

Integrated Reporting gives a clear view of how the increasing number of public institutions in the world use public resources, where they are used, and how effectively and efficiently they are used (Perego , Kennedy, & Whiteman, 2016). Therefore, efficiency, effectiveness, responsibility and accountability, which are the principles of public administration, etc. with the functioning of such principles, compliance with these principles becomes easier and the importance of integrated

reporting for public institutions increases. In this way, non-business information users can also see the transparent process and increase their trust in public institutions, while making decisions, they can easily access information on targets, strategies and value creation that will shed light on the future together with the financial data of the past.

In an age of time and resource constraints, public sector organizations need ways of broadening the conversation about the services they deliver and the value they create, not only to meet short term demands but for the longer term and Integrated Reporting is a model for achieving this and for promoting trust and confidence with key stakeholder (CIPFA, 2016).

Although initially developed with corporate users in mind, the emphasis of Integrated Reporting on value beyond profit has many benefits for public sector organizations. Unlike traditional corporate reporting, this more flexible approach enables organizations to focus clearly on how they and their stakeholders define value in the short, medium and long term (CIMA, 2022). A 2012 IIRC survey (IIRC, 2022) of public and private sector organizations using Integrated Reporting found the key benefits to be as follows:

- Breakthroughs in value creation
- Improving what is measured
- Improving management information and decision making
- A new approach to stakeholder relations
- Connecting departments and broadening perspectives

The objectives of integrated reporting in the public sector are gathered at six points in the Integrated Reporting Framework prepared by the IIRC, regardless of sector. These are (IIRC, 2022):

- To promote awareness of accountability and transparency,
- To describe how capital elements relate to one another,
- By assuring the effective, efficient, and productive distribution of the capital used, it will be possible to improve the quality of the information provided to the stakeholders.
- Enabling the organization to communicate effectively with all of its stakeholders and supporting the elements of value creation, decision-making, and action in the short, medium, and long terms through integrated thinking,
- By using integrated thinking and assisting the organization in having integrated communications with all of its stakeholders, integrated thinking supports the elements of creating value, decision-making, and action-taking in the short, medium, and long terms.
  - Its purpose is to communicate a more succinct, thorough, and clear reporting style.

4.2.1. Rationale for integrated reporting in the public sector

In order to show that public resources are secured and used effectively, economically, and efficiently, efforts toward public sector organizations are growing in accordance with calls for enhanced openness, accountability, and understanding of how value is created. The majority of public sector investments go toward

infrastructure, strong educational opportunities, trustworthy healthcare, and safety. (CIPFA, 2016).

Public institutions need to meet stakeholder groups' expectations with the services and benefits they offer, use their resources efficiently, and present their operational results in a transparent manner when faced with resource limits and pressures brought on by a lack of resources. Different definitions of value are created by public organizations that appeal to sizable stakeholder groups with the services and benefits they offer. Public institutions that confront numerous issues, such as maintaining the sustainability of the created values, expanding the value created over time, and meeting needs, require integrated reporting in the public sector (Filiz, 2018).

KPMG reported in its "Room for Improvement" report from 2016 that, on average, financial reporting only satisfies 42% of organizations' performance and expectations. As a result, financial reporting cannot provide a complete picture of an organization. (KPMG, 2016).

Users of information also want to know about the external environment in which businesses operate (competition, economic trends), as well as information that is prospective. According to Hans Hoogervorst, all of these components fall under the purview of integrated reporting, which he advises for stakeholders and information users because the present financial reports alone are unable to address these needs (Hoogervorst, 2022).

These justifications allow us to provide the following justifications for why integrated reporting in the public sector is necessary to show that public resources are obtained and utilized in an efficient, cost-effective manner, growing demands for public institutions to be more open and accountable, outlining to all of their stakeholders the value that public institutions have generated and why it is important for them to comprehend this value, the public sector constitutes a significant part of the GDP of countries around the world, being future-focused and producing value for the future become more important as the public sector invests a major portion of its funds in areas like giving citizens access to quality healthcare and education, non-financial elements are becoming more significant in forecasting attitudes on future-focused and sustainable wealth development, the value-oriented integrated thinking philosophy of all variables that make up the organization ensures that stakeholders effectively, efficiently, economically, and sustainably create value for public sector organizations, the value-oriented integrated thinking philosophy of all variables that make up the organization ensures effective, efficient, economic, and sustainable value creation of public sector organizations, since the current reporting methods of public sector organizations solely concentrate on financial data reported in the past, they are unsuitable for future value estimations and are insufficient to foster and boost stakeholder trust.

4.2.2. Integrated reporting principles and key components in the public sector

In this part of the study, the concepts, principles and elements that form the theoretical foundations of integrated reporting in public institutions are tried to be

explained. The concepts, principles and elements described apply to all organizations. These concepts, principles and elements that will be mentioned in the study have been taken into account in terms of public sector organizations and tried to be explained by harmonizing them according to public sector organizations. The literature analysis led to the conclusion that Institutional Values, Capital Elements, Value-Value Creation Process, Business Model, and Key Performance Indicators are the fundamental components of Integrated Reporting.

For public sector organizations integrated reporting is needed for;

a. **Accountability:** It is the explanation to the appropriate authorities and the general public by people in charge of procuring and using the resources utilized in the provision of a service or in the manufacturing of a product, of how the resources are used in carrying out the tasks and attaining the goals and objectives.
b. **Transparency:** Transparency is a prerequisite for accountability. This principle, which is mentioned in Articles 7 and 8 of Law No. 5018, works as a whole with accountability and forms the basis of integrated reporting. Transparency is making decisions in a participative manner and ensuring that those who will be impacted by the decisions—internal and external stakeholders as well as other information users—have access to information..
c. **Sustainability:** The goal of sustainability is for businesses to generate value over the long term. The financial perspective alone is insufficient to attain this goal; economic, social, and environmental concerns must all be taken into account. Budgeting based on strategic performance and planning, as mandated

by Law No. 5018 and the Medium Term Program developed by the State Planning Organization, shapes public policies and practices in accordance with strategic objectives, improves predictability for public institutions, and ensures sustainability by laying out a roadmap for resource allocation within this framework. In Integrated Reporting, it is aimed to ensure the sustainability of public institutions by establishing the short, medium and long-term value of public institutions by linking the results goals and expectations of public institutions with financial data ("Turguter, 2015).

d. **Participation:** Participation shows the stakeholders who have an impact on the public sector's value creation and their results, as well as how organizations communicate transparently with their stakeholders through integrated reporting. A report that includes integrated reporting displays the effects of all stakeholders who have an impact on value generation. Using participatory techniques, strategic plans that must be created in accordance with Article 9 of Law No. 5018 are also created while taking the needs of public institutions into consideration. Therefore, participation, that is, involving stakeholders, is an arrangement inherent in the integrated report and the Law No. 5018.

4.2.3. Local and global integrated reporting practices in the public sector

Even though there are relatively few Integrated Reporting practices globally compared to other reporting kinds, their adoption rates are rising as a result of several regulatory mandates and voluntary principles. One of the top groups working on integrated reporting internationally is the International Integrated Reporting Council

(IIRC). The only thorough manual that details the content and fundamental ideas of the integrated report is the International Integrated Reporting Framework, which was released in 2013.

ERTA was established to contribute to the development of the Integrated Report locally. In 2013, Garanti Bank and Çimsa became the first member companies to join the pilot project network developed within the scope of IIRC in order to prepare an Integrated Report in our country. The demand of the private sector for Integrated Reporting, which is not very common in our country, is increasing day by day and the studies are making progress. For example, in 2016, the Industrial Development Bank of Turkey (TSKB) published the first integrated report of the Turkish finance sector and became the bank that introduced the concept of value creation model in this report, and this report was included in the sample reports by the IIRC. Furthermore, in 2016, Çimsa became the first company to publish an integrated report in Turkey. Aslan Cement, which published integrated reporting in the same year, followed suit, becoming the first company in the Turkish industry to make integrated reporting.

Although there is no movement linked to integrated reporting in public sector entities in our nation, the non-governmental organization Argüden Governance Academy produced Turkey's first integrated report in 2015. The first Integrated Report from the education sector was then prepared in 2017 by the YTU Finance Corporate Governance and Sustainability Center. Kadıköy Municipality Integrated Report, which is the first local government integrated report published by local governments in the world, is an important study for the public sector, the first of

which was published in 2018 and the second in 2020. In the table below, institutions that have prepared an Integrated Report in both the public and private sectors in our country are listed (ERTA, 2022).

Table 13 *Integrated Reporting in Turkey*

Year	Regulatory and Supervisory Institutions	Public Institutions	Private Sector-Companies	Non-Governmental Organizations	Local Authorities
2021	Istanbul Stock Exchange Central Registry Agency	Vakıfbank Ziraat Bank Halkbank Development Investment Bank	Garanti BBVA Türkiye İş Bank Turkish Industrial Development Bank Yapıkredi Akbank Çimsa Nuh Cement Oyak Mining Metallurgy Group Aksa Acrylic	Darüşşafaka Society Turkish Education Volunteers Foundation	

			Vestel Electronic Vestel White Appliances Turkcell Coca Cola Beverage Zorlu Energy		
2020	Istanbul Stock Exchange Central Registry Agency	Vakıfbank Ziraat Bank Halkbank Development Investment Bank YTU Finance Corporate Governance and Sustainability Center	Akademi Çevre Oyak Cement Oyak Mining Metallurgy Group Mazars Denge Allianz Turkey Garanti BBVA Türkiye İş Bank	Argüden Governance Academy Darüşşafaka Society Turkish Education Volunteers Foundation	Kadıköy Municipality

			Turkish Industrial Development Bank Yapıkredi Akbank Çimsa Nuh Cement Aksa Acrylic Turkcell Coca Cola Beverage		
2019	Istanbul Stock Exchange	Vakıfbank Ziraat Bank	Garanti BBVA Türkiye İş Bank Turkish Industrial Development Bank Yapıkredi Adana Cement Aslan Cement	Argüden Governance Academy Turkish Education Volunteers Foundation	Kadıköy Municipality

			Çimsa Nuh Cement Oyak Mining Metallurgy Group Mazars Denge Aksa Acrylic Allianz Turkey		
2018	Istanbul Stock Exchange	Yıldız Technique University	Garanti BBVA Türkiye İş Bank Turkish Industrial Development Bank Adana Cement Aslan Cement Çimsa Nuh Cement	Argüden Governance Academy Turkish Education Volunteers Foundation	

Note: This table is taken from " Türkiye'de Yayımlanan Entegre Raporlar", published by ERTA, retrieved from http://www.entegreraporlamatr.org/tr/entegre-raporlama/turkiyede-yayimlanan-entegre-raporlar.aspx.

As can be seen in the table above, it is seen that the integrated reporting models that have been published in our country since 2018 are used more in the private sector, and that especially the banking and cement companies are stable in this regard. The predominance of banks is also seen in the public sector. Kadıköy Municipality, which has taken the first step of the integrated reporting model in local governments and is still the only institution, is also a pioneer in the world in this field. In the following section, a brief evaluation of the integrated reports published by Kadıköy Municipality is made.

Kadıköy Municipality-Integrated Report:

In order to report the value and global future goals produced with the integrated thinking method, jointly and holistically, and to manage its resources accordingly, Kadıköy Municipality is the first municipality in the world to conduct a "Integrated Reporting" research. A pioneer in this field is Kadıköy Municipality, which has two integrated reports, the first of which was released in 2018 and the second in 2020.

Reviewing the combined report for the two periods reveals that, although the substance of the reports covers the previous year's activities, the information presented goes beyond that period to include Kadıköy Municipality's future vision and projections. In this sense, it seeks to improve stakeholder trust through increased accountability and openness. The reports include the "Municipal Integrated Reporting Model," which was created in compliance with the reporting guidelines published by the International Integrated Reporting Council. The aforementioned study invites

participation in this regard by including the views and recommendations gathered during the internal and external stakeholder engagement processes.

The principles of a comprehensive viewpoint, stakeholder participation and expectations, needs and requirements, strategy, efficient use of capital and resources, and value generation form the foundation of the Municipality Integrated Reporting Model. These ideas were created using the 2030 Sustainable Development Goals, the OECD's decent living index, and the EFQM's learning cycle. It is intended to develop a plan that will ensure the most efficient use of six capitals with a focus on value development (intellectual, human, social and relational, natural, financial, and derived capital).

The vast network of relationships the municipality has both domestically and internationally are highlighted in the context of social and relationship capital. The impact of the knowledge gained as a result of the social network on raising residents' quality of life is mentioned.

In the context of natural resource capital, it is claimed that the municipality works hard to establish new green spaces while also preserving the natural resources it already has in order to improve the quality of life for its residents. On the axis of citizen happiness, it is highlighted that there are now more female employees and that employee education levels have increased within the context of human resources capital. Along with the facilities that offer a range of services to the populace, service vehicles, equipment, and program licenses are taken into account while discussing created capital/service units. The integrated report's list of capitals is said to have been

chosen with the preservation of the environment and the use of green practices, the management of stakeholder expectations, involvement, and the continuation of service quality, in mind. Eleven values were chosen in order to fulfill the purpose of improving quality of life, and recommendations for these values were produced. Every value proposition has a connection to one or more SDGs. Another evaluation technique was the Municipal Governance Scorecard of Istanbul Districts from the viewpoint of the citizens.

In the Kadıköy Municipality integrated report, it was emphasized that while developing the strategy-value creation model, the historical and cultural makeup of the neighborhood, the dynamics of daily life, and the resident citizen profile were all taken into account. The value creation model would be realized by giving priority to the services, according to the report. The value produced in the social dimension and the value produced in the material dimension are the two categories under which the produced values are handled. The Sustainable Development Goals were established as value dimensions at the same time as these values. Kadıköy Municipality's value model is relevant to; healthy life, cultural and artistic development, Individual development, social development ,participation in governance and decision processes, livable environment, safe living, perception of quality life, income generating environment, development of work opportunities and housing opportunities.

When the Integrated Reports of the Kadıköy Municipality are assessed in terms of capital elements, guidelines, and content components, it becomes clear that the report lacks coherence, content elements, and questions and answers pertaining to the elements. The fact that it is the first and only integrated report published by local

governments, nonetheless, is extremely significant. The stakeholder matrix, materiality matrix, and business model in the assessed integrated report all demonstrate how the guidelines' flexibility and principle-basedness support an approach customized to local governments.

Although integrated reporting practices on a global scale are more common than in our country, integrated reporting studies for public sector organizations are available, albeit partially, and intensive studies are being carried out to develop them. The main integrated reporting studies published in the public sector on a global scale are mentioned below.

a. Fasset, South Africa

The South African Authority for the Financing and Accounting Services Industry Education and Training is known as Fasset. proactively deciding to create the Annual Integrated Report to reflect its financial and non-financial performance and adopting governance and transparency criteria. The 2013/2014 annual report of Fasset, which started its integrated reporting journey in 2011, was chosen as the best integrated report. By providing thorough explanations about its strategy, governance, risks, and opportunities in its integrated report, Fasset makes an open and accountable presentation while clearly outlining its good, terrible, positive, and negative performance and effects.

Fasset believes that since starting its Integrated Reporting journey, it has become more accountable, transparent, and performance-focused. All public entities

should use Integrated Reporting as the standard for reporting, according to Fasset. (CIMA, 2022).

b. Rosatom, Russian Federation

About 400 nuclear enterprises and R&D organizations working in the civil and defense sectors are members of Rosatom, the Russian Federation's state nuclear corporation. Rosatom decided to start its journey toward Integrated Reporting by establishing an industry-wide public reporting system based on generally accepted corporate reporting standards. The Organization's Integrated Reports help readers better comprehend how the financial and non-financial facets of its activities are intertwined. According to Rosatom, integrated reporting is a more useful tool for management to use when deciding on priorities in addition to corporate goals and societal demands.

c. NZ Post Group, New Zealand

In the face of competition from the commercial sector, New Zealand Post Group does business as a government corporation in a postal market that is controlled. NZ Post Group released its first integrated report in 2013 while taking part in the IIRC pilot program. The 2014 Group Report is broken down into six capitals. (CIMA, 2022); relationship, networks, expertise, people, environment, finances

d. NHS Greenwich Clinical Commissioning Group (GCCG), UK

All area residents in Greenwich, London, must get hospital, community, and mental health services from the NHS Greenwich Clinical Commissioning Group (GCCG). The UK National Health Service's first integrated report was the 2013/2014 annual report. This study tries to demonstrate to its audience why GCCG deserves their trust. As a result, the report explains how it is run, including how the organization came up with its strategy and settled on its therapeutic priorities. The report contributes to generating value in the short, medium, and long terms by describing governance frameworks, performance, and expectations in the context of external structure.

4.2.4. Motives for utilization of integrated reporting in local authorities

In order for the communication between the local government and its stakeholders to be continuous and constructive, information sharing should be done in line with the principles of transparency and accountability. The focus on greater accountability and governance makes the endeavor to increase reporting transparency desirable. (Nistor C. S., Stefanescu, Oprisor, & Crisan, 2019). Greater accountability and openness in the use of public resources are demanded from public entities. For those outside of governments, accurate and timely information regarding accomplishments and the use of public resources makes it simpler to analyze whether expenditure was fair, proper, and compatible with good stewardship. (Nistor, Stefanescu, & Crisan, 2019). Therefore, it is crucial for these organizations to make public a stronger response to stakeholders' expectations. (Garcia-Sanchez, Frias-

Aceituno, & Rodriguez-Dominguez, 2013), increasing public accountability by being more open about their operations (Abu Bakar & Saleh, 2015). For this purpose, integrated reporting provides a conceptual basis for local governments to be transparent and accountable to their stakeholders.

Municipalities must comply with rules and regulations in reporting activities. They publish a large number of institutional reports. These reports contain a lot of unnecessary information that is complex, difficult to understand, and repetitive. The information contained in the reports does not provide an understanding of the business model, risks, value creation for the future, and does not establish an information relationship that will perceive the risks and opportunities for the future. Integrating reporting creates a shared platform for governance, financial capital, intellectual capital, social capital, and environmental capital (Abeysekera, 2013).

Integrated reporting aims to present a large number of corporate reports in the public sector as a single report by establishing a relationship between the main components. Putting the information provided to the stakeholders in an understandable form by establishing the relationship between the main components and providing integration is one of the motivations that encourage the use of integrated reporting by municipalities.

Public services are created and provided in complex contemporary environments in which climate change, sustainable economic development, biodiversity and many other emerging issues constitute the driving forces of environmental and human developments (Guthrie & Martin-Sardesai, 2020).

Therefore, the required information of municipalities to be accountable is not limited to their financials, but involves their environmental and social impacts as well as the intersections between financial, social and environmental elements. Therefore integrated reporting is an effective reporting model for municipalities.

Based on the explanations above, the reasons that make integrated reporting necessary in local governments can be explained as follows:

a. To show that the resources of the municipalities are obtained and used effectively, economically and efficiently.
b. Increasing demands for transparency and accountability in municipalities.
c. To explain the value created by the municipalities to all their stakeholders.
d. Increasing importance of not only financial but also non-financial factors in predicting long-term sustainable and future-oriented value creation perspectives of municipalities.
e. Providing an environment of trust in order to increase the reputation of the municipality.
f. Due to the fact that the current reporting systems of the municipalities contain historical information, these reports do not create any residual value, are not suitable for future value estimations and are not sufficient to create and increase the trust environment for the stakeholders.

4.2.4.1. Integrated reporting in municipalities literature review

When the integrated reporting studies in the literature are examined, a large number of studies dealing with integrated reporting have been found. Therefore, the search criteria were narrowed down to integrated reporting and public sector and restructured. However, there are limited studies on the applicability of integrated reporting in the public sector and more specifically in municipalities. Information on the studies reached as a result of the literature research is given below.

The goal of the study of Nistor et al. (2019),"Approaching Public Sector Transparency Through An Integrated Reporting Benchmark" is to determine whether the key components of the emerging reporting trend align with those of the existing reporting set and applications in a hypothetical reporting organization. The study approach attempts to assess non-financial and financial data from an integrated perspective in the operations of organizations. The cluster analysis of the disclosure practices of the European Union local public administrations, along with an examination of the six-stage capital model from the IIRC framework and the eight key principles from the GRI guidelines, led to the conclusion that the sample has the highest explanatory power in Anglo-Saxon and Northern local public administrations. The study of Farneti et al. (2019), "The Influence of Integrated Reporting and Stakeholder Information Needs on the Disclosure of Social Information in a State-Owned Enterprise," examines the three types of social capital that the international integrated reporting framework emphasizes: intellectual, human, and social capital. It also examines how relationship capital has been adapted to integrated reporting and tests its impact on social explanations. An examination of the contents of the annual

reports and integrated reports that were released between 2009 and 2017 was undertaken as part of a case study that was conducted in accordance with the research's objectives. In order to examine the situation before and after integrated reporting, the study chose the years 2009–2017. The New Zealand Postal Administration reports were evaluated in the study using the semi-structured interview technique. Results from empirical research were examined in the context of stakeholder theory. According to the study's empirical findings, enhanced stakeholder interactions in the public sector can be understood by looking at how integrated reporting affects the disclosure of social information. The study shows that the integrated reporting framework's material assessment method promotes prioritization of and in relation to social issues discussed with stakeholders. The study of Guthrie et al. (2017), "Integrated Reporting and Integrated Thinking in Italian Public Sector Organizations," aims to investigate the connections between integrated reporting and organizational internal processes, particularly what internal mechanisms in organizations are primarily altered by integrated reporting disclosures and how they impact integrated thinking internally. Five Italian public sector organizations were examined as part of the study's scope, and data from official records and management interviews conducted using a semi-structured interview technique were used in the study. The study has led to the conclusion that businesses who implement integrated reporting also implement integrated thinking. In "Tweaking Public Sector Reporting With Integrated Reporting Concepts", Caruana and Grech (2019) identify the enthusiasm between current practices and integrated reporting in the annual departmental reports produced by Maltese government ministries. According to the study, integrated reporting principles and components can be gradually implemented in an effort to boost accountability and transparency.

Internalizing integrated thinking can also help the Maltese public sector break free from its silo mentality while also fostering higher value creation. The study came to the conclusion that comprehensive guidelines for the creation of integrated reports for Malta should be prepared. Balasingam et al. (2019), in the study titled "The Challenges in Adopting and Implementing Integrated Reporting in Public Listed Companies in Malaysia" aims to identify the current situation and potential challenges in integrated reporting in Malaysia. Within the parameters of the study, primary data were used, and the data set was compiled through questionnaires created with a 5-point Likert scale and used in publicly traded businesses. According to the study, while there may be cost-creating variables and challenges in adjusting to the integrated reporting process, the general consensus is that in the medium and long term, integrated thinking will boost efficiency for public institutions. In their study titled "Sustainability, Popular and Integrated Reporting in the Public Sector: A Fad And Fashion Perspective", Biondi and Bracci (2018) compare and contrast the many public accountability tools available. The goal of the study is to highlight the similarities and differences between the financial report, integrated report, and sustainability report released in the public sector as well as to show the development processes. In the study done using the conventional method, the comparative analysis method was applied for this purpose. Three questions were answered while making the comparisons. These three questions are what we are comparing, what we are comparing it for, and how we are comparing it. As a result of the study, they came to the conclusion that looking at sustainability reporting and integrated reporting from the point of view that they are only the most talked-about concepts of the last period without internalizing them will create a great obstacle to achieving the goals and objectives. Montevalco et al. (2018),in the study of "The Potential of Integrated

Reporting to Enhance Sustainability Reporting in The Public Sector", investigates the effects of integrated reporting on the sustainability reporting practices of a government-owned firm through content analysis and interviews with report authors. The results of the study demonstrate a consistent rise in both the volume and quality of sustainability disclosures.

When the studies reached as a result of the literature review are evaluated in general, the value creation aspect of integrated reporting practices and the adoption of integrated thinking in the public sector has been emphasized, and it has been seen that this situation has been mentioned to increase transparency, efficiency and effectiveness in the medium and long term. It is seen that the general opinion that emerged as a result of the literature review is compatible with the aim of our study.

5. A MODEL PROPOSAL FOR THE EVALUATION OF INTEGRATED REPORTING IN LOCAL GOVERNMENTS

With the widespread use of integrated reporting, how financial and social activities can be measured as a whole has begun to be discussed. The fact that financial performance measurement includes objective criteria and is widely used in evaluating the performance of companies has also shown its effect in the academic literature, many model proposals have been developed for financial performance measurement and many researches have been carried out. On the other hand, the fact that social data does not contain precise and objective information has brought along difficulties in its measurement, and for this reason, academic studies to measure social performance have only started to take shape after the 1960s, when the concept of social responsibility came to the fore. With the increasing interest in social performance, many measurement models have been developed to measure social performance, although they are not as objective and precise as financial performance criteria. Although many models have been developed separately to measure financial and social performance, a measurement model that combines the two on the same scale has not been developed.

In this section, an internationally applicable integrated reporting index model for local governments(for metropolis) that combines financial and social data on the same measurement scale has been proposed, based on this index model their integrated reporting index notes were calculated and compared between 2018-2020.

5.1.Aim, Target, and the Limits of the Study

The aim of the study is to propose an index model that can be used to measure the integrated performance of local governments in the national level, and to create the most suitable integrated reporting model for the use of local governments. The questions of the study are:

1. Is integrated reporting an applicable corporate reporting model in local governments?
2. How close are the current financial and social reports of local governments to the integrated report model?
3. What should be the content of an integrated reporting index that can be used by local governments?

The fact that social reporting is not given sufficient importance in our country, that the data is based on the declarations of the municipalities, and the data transferred to the annual reports are dependent on the decision of them, creates a limitation on the collection of social data.

5.1.1. Data collection methods

As of today, there are 30 Metropolitan and 519 Metropolitan District Municipalities in Turkey (T.C. İçişleri Bakanlığı, 2022). This study was initiated with a pilot study applied to 32 municipal personnel in the first place. The questionnaire design was revised according to the feedback and comments of the pilot study. In the second stage, questionnaires were sent to 29 Metropolitan (Diyarbakır and Mardin, which are under the administration of trustees, were not included in the study) and

126 Metropolitan District Municipalities (they were sorted by population and included municipalities with a population coverage of more than 50%), responses from 27 Metropolitan and 92 Sub-Provincial Municipality were received. During the implementation phase of the questionnaires, a one-to-one dialogue was established with the Heads of Departments, Deputy Mayors or Unit Managers, and information was provided on "Integrated Reporting" in order to raise awareness. The surveys were answered by the personnel of the corporate reporting units of the municipalities, who hold managerial, chief, expert or responsible positions. The questionnaire applied to the municipalities is included in Annex-3. The population coverage rates of the survey application are given in the table below.

Table 14 *List of Municipalities*

Metropol Name	**Total Number of Sub-Provincial Municipality Number**	**Selected Sub-Provincial Municipality Number**	**Population Coverage Rate**	**Sub-Provincial Municipalities Total Population**
Adana	15	4	79%	1,768,860
Ankara	25	7	77%	4,354,052
Antalya	19	5	73%	1,824,958
Aydın	17	3	52%	574,841
Balıkesir	20	4	55%	676,994
Bursa	17	3	65%	1,999,998
Denizli	19	2	63%	657,994
Erzurum	20	3	55%	422,832

Eskişehir	14	2	88%	783,611
Gaziantep	9	2	83%	1,721,475
Hatay	15	4	56%	911,692
İstanbul	39	34	96%	14,973,647
İzmir	30	7	61%	2,655,949
Kahramanmaraş	11	2	57%	654,521
Kayseri	16	2	69%	968,078
Kocaeli	12	5	66%	1,292,468
Konya	31	3	60%	1,346,330
Malatya	13	2	78%	624,405
Manisa	17	4	53%	757,022
Mersin	13	3	50%	911,500
Muğla	13	4	60%	594,287
Ordu	19	3	62%	464,835
Sakarya	16	3	50%	514,247
Samsun	17	3	52%	697,008
Şanlıurfa	13	4	59%	1,222,966
Tekirdağ	11	3	62%	649,474
Trabzon	18	2	56%	454,305
Van	13	3	58%	663,963
TOTAL	**492**	**126**		**45,142,120**

The biggest limitation of this survey applied within the scope of the study is that the municipalities are not very willing to participate in the survey due to their political concerns, expectations, attitudes and reservations, especially due to the

institutional structure and culture that has not yet been established in the district municipalities, and the lack of strong cooperation between the units, the importance of the prepared corporate reports was not noticed by the personnel and there is a possibility that the answers may not be evaluated objectively due to the lack of information about integrated reporting.

As the second part of the study, while creating the index model, a new scale was created by taking into account the social reporting indices examined in the previous sections as the GRI Standards of Integrated Reporting Council (GRI, 2022), the UNDP Sustainable Development Goals (UNDP, 2022), and the OECD's Better Life Index (OECD, 2022). For financial indicators, the ratios published by the General Directorate of Public Accounts were used (Muhasebat Genel Müdürlüğü, 2022). The instrument for measuring social reporting index criteria is given in Annex-1.

As a result of the results obtained, content analysis and financial performance measurement covering 29 metropolitan cities were carried out for index study and performance measurement. In order for the study results to be meaningful and comparable, only metropolitan municipalities are included in the integrated reporting measurement model proposal

The data on the measurement of the integrated performance of the local governments within the scope of the study were obtained from the financial, annual, and social reports of the municipalities. As a result of the research carried out in the

preparation of the index study, the municipalities that have prepared social reports other than the annual activity report are listed in the table below:

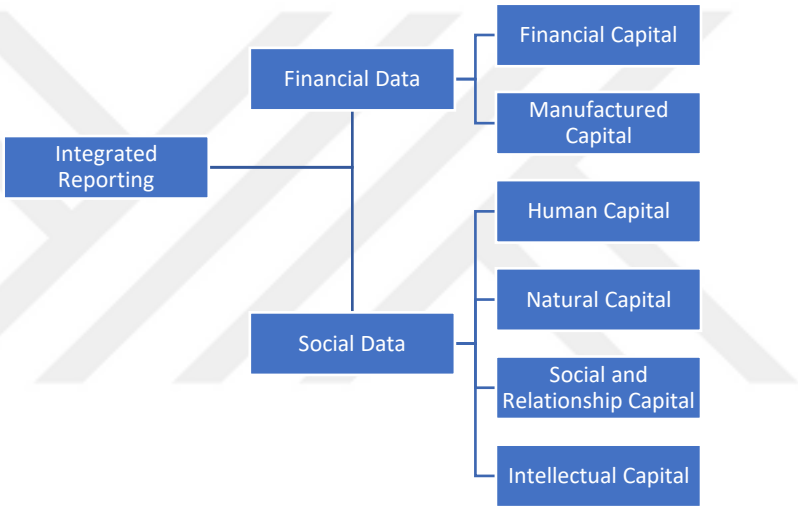
Table 15 *Municipalities with social reports*

The Metropol Municipality	**Name of the Social Report**
Sakarya	- Tourism Sustainability Report - Energy Sustainability Report - Smart Cities Report
Gaziantep	- Climate Change Action Plan - Ecological City Application and Design Guide
İzmir	- Gediz and Bakırçay Basin Sustainable Development Strategy - Küçükmenderes Basin Sustainable Development and Life Strategy - İzmir Sustainable Energy and Climate Action Plan
Bursa	- Bursa Sustainable Energy and Climate Change Adaptation Plan
Mersin	- Local Equality Action Plan

5.1.2. Constitution of the index model

While creating the index model, a new scale was created by taking into account the social reporting indices, intellectual capital and financial performance measurement criteria, which were examined in the previous sections, and the Integrated Reporting Framework published by the Integrated Reporting Council. The criteria determined for social and financial indicators are summarized in Figure 15.

Figure 15 *Integrated Reporting Components*



As can be seen in Figure 15 the index criteria are based on integrated reporting capitals. The index model is under the financial data main criterion; if financial capital, produced capital, social data are below the main criteria; It is classified into six sub-categories as human capital, natural capital, intellectual capital, and social and relationship capital.

Corporate Social Responsibility is a concept that states that institutions should act responsibly towards the environment (natural capital), employees (human capital) and society (social and relationship capital) while carrying out their activities, so the three basic capital elements of integrated reporting are natural capital, human capital.

and social and relational capital corporate social responsibility (CSR) index components.

5.1.2.1. CSR index criteria

While creating the index criteria for this section, a new index model was created by taking into account the indices, academic studies and integrated reporting framework examined in the previous sections. The index criteria created for the CSR components are included in Annex-1.

5.1.2.2.Financial capital index criteria

The fact that financial data contains precise and objective criteria, is widely used by the stakeholders of the institution in the evaluation of their performance, has also shown its effect in the academic literature, and many models have been developed to measure financial performance. However, the situation is not the same for the public sector. In the public sector, the financial performances of local governments are not internationally comparable. So much so that the purposes, services and performance criteria of local governments may differ within the country's own public administration system. Therefore, in this study, T.C. The Public Institutions Financial Analysis Guide developed by the Ministry of Finance was taken as a reference in the creation of the financial performance model. Information on the relevant criteria has been given in the previous sections.

5.1.2.3.Manufactured capital index criteria:

Produced capital is a concept that is not consumed together with the services and products produced, that contributes to the provision of products and services, that is owned, leased or controlled by the company, used instead of tangible assets and infrastructures. Examples are buildings, machines, technologies used, infrastructures.

Manufactured capital is a concept that can be obtained from the financial statements of institutions and cannot be separated from financial statements. It can be said that the companies with high tangible fixed assets investments have strong produced capitals. In this respect, the ratio of tangible fixed assets to total assets is included in the index criteria as a produced capital criterion.

5.1.2.4.Intellectual capital index criteria:

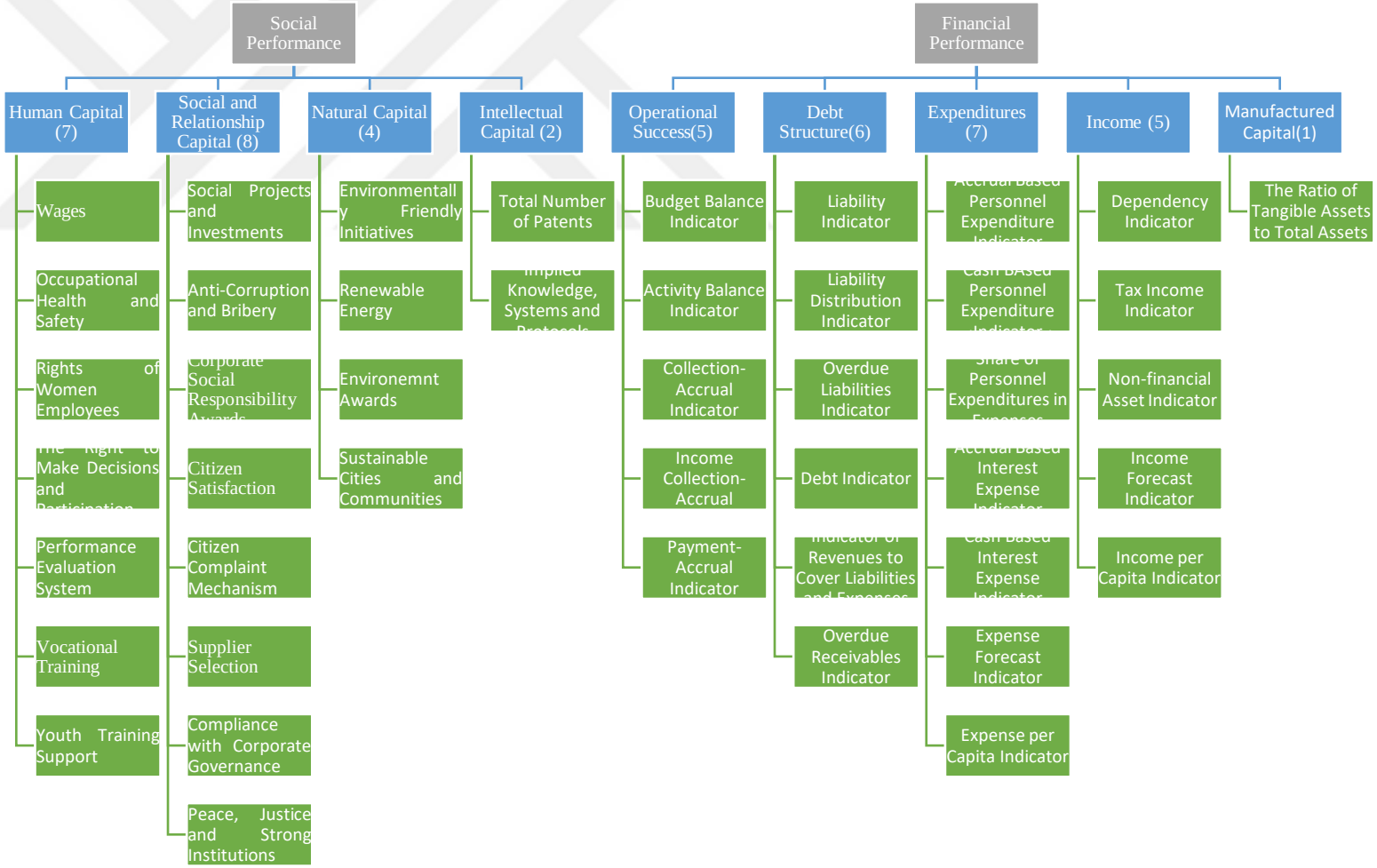
Although there are many different models for measuring intellectual capital, it is not possible to talk about the accuracy of a precise method since the studies in this field are new. In general, we can divide the methods of measuring intellectual capital into two groups. These; methods that measure intellectual capital on a business basis and methods that measure intellectual capital on the basis of its elements.

Although there are many different definitions and measurement methods in the literature, the Integrated Reporting Council has defined intellectual capital as information-based intangible assets that belong to the organization. In this respect, patents, copyrights, software, rights and licenses, tacit knowledge, systems,

procedures and protocols constitute the components of intellectual capital. Based on this definition, intellectual capital components are included in the study as determined in Annex-1.

The social and financial capitals and sub-capitals of the research is shown in Figure-16 below.

Figure 16 *Financial and Social Capitals and Sub-Capitals*



5.2. Research Plan

Analytical hierarchy process, one of the multi-criteria decision-making methods, was used in order to determine the importance levels/weights of the criteria determined in the study. In order to obtain the matrix reflecting the importance levels of the determined criteria, 12 experts were interviewed. The related information about the experts included are given in the table below:

Table 16- *Expert List*

Expert Number	**Title**
1	Prof. Dr.
2	Prof. Dr.
3	Prof. Dr.
4	Associate Prof.
5	Phd.
6	Phd.- Muratpaşa Municipality
7	Financial Services Manager- Ordu Metropolitan Municipality
8	Financial Services Manager- Konya Metropolitan Municipality
9	Strategy Development Manager- Antalya Metropolitan Municipality
10	Financial Services Manager- Bursa Metropolitan Municipality
11	Financial Services Manager-Tekirdağ Metropolitan Municipality
12	Strategy Development Manager- Hatay Metropolitan Municipality

5.3. Analysis of Data

5.3.1. Calculation of index scores

In order to calculate the human capital, social and relational capital, natural capital and intellectual capital grades of local governments, the qualitative data obtained from the annual reports and other information should be converted into quantitative data. Therefore, the index criteria are weighted as "0","1" and "2" points.

Capital ratings for the social performance of local governments were calculated in two stages. In the first stage, raw index grades were calculated for each capital item separately. The maximum possible score is 69. In the second stage, the grades calculated for each capital item were normalized and included in the analysis. Since the distribution range of the indicators considered in terms of financial capital is quite different, the reflection of the effect of change on the results is prevented by standardizing in the 0-1 range.

In this study, which was conducted to evaluate the performance of 29 municipalities in terms of social and financial capital between 2018-2020; MS Excel was used for the calculations related to the AHP technique.

5.3.2. Analysis of the research

5.3.2.1. Survey study results

The following hypotheses were used to test the survey results applied to the Metropolitan Municipalities and Metropolitan District Municipalities, and the survey results were analyzed in the SPSS-12 program.

The applied survey questions are included in Appendix-3. The first part of the questionnaire aims to reveal the demographic profile of the participant and the municipalities included, and the 5-point Likert scale in the second part is under the social performance measurement of the institution has been established in a structure that allows municipal personnel to evaluate their own institutions related to human capital, social and relationship capital, natural capital and intellectual capital components.

The distribution of 36 questions on a 5-point Likert scale according to capital criteria is as follows:

- **Human Capital Questions:** 1 ,2 ,3 ,4 ,5 ,6 ,7 ,8 ,9 ,10 ,11 ,12
- **Social and Relationship Capital Questions**: 13,14,15,16,17, 20, 22, 23, 24, 29, 30, 31, 32 ,33 ,35
- **Natural Capital Questions**: 26 ,27 ,28
- **Intellectual Capital Questions:** 18,19, 21, 25, 34, 36

On a 5-point Likert scale, participants were asked to rate the municipalities they worked for, based on the statements "1-Strongly Agree", "2-Disagree", "3-Undecided", "4-Agree", "5-Strongly Agree"

5.3.2.2. Findings on demographic characteristics

Table 17 *Gender*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Woman	37	31,1	31,1	31,1
	Man	65	54,6	54,6	85,7
	Not Known	17	14,3	14,3	100,0
	Total	119	100,0	100,0	

According to the result of the research, the 31.1% of the respondents were woman, 54.6% were man and 14.3% were not indicated their gender

Table 18 *Age*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Between 25-34	35	29,4	29,4	29,4
	Between 35-44	54	45,4	45,4	74,8
	Between 45-54	28	23,5	23,5	98,3
	55+	2	1,7	1,7	100,0
	Total	119	100,0	100,0	

When the age category is examined, 45.4% of the respondents were between 35-44 years old, 29.4% is between 25-34, and 23.5% is between 45-54 years old.

Table 19 *Education*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High School	1	,8	,8	,8
	Vocational School	6	5,0	5,0	5,9
	Undergraduate	77	64,7	64,7	70,6
	Post Graduate	30	25,2	25,2	95,8
	PHD.	5	4,2	4,2	100,0
	Total	119	100,0	100,0	

64.7% of the respondents have an undergraduate degree, 25.2% have post graduate degree while 5% graduated from vocational school.

Table 20 *Experience*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2-9 year	30	25,2	25,2	25,2
	10-19 year	54	45,4	45,4	70,6
	20-29 year	32	26,9	26,9	97,5
	30+	3	2,5	2,5	100,0
	Total	119	100,0	100,0	

When the work experience criterion is examined, it is seen that; 45.4% of the participants have between 10 and 19 years of experience followed by 26,9% between 20-29 years, 25.2% is between 2-9 year and 2.5% have more than 30 year work experience.

Table 21 *Position*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Director	44	37,0	37,0	37,0
	Supervisor	9	7,6	7,6	44,5
	Expert	20	16,8	16,8	61,3
	Responsible	46	38,7	38,7	100,0
	Total	119	100,0	100,0	

While 38.7% of the participants in charge with responsible, it is followed by director with 37%, 16.8% is expert and 7.6% is supervisor.

Table 22 *Employement in the Municipality*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 1 year	4	3,4	3,4	3,4
	2-9 year	58	48,7	48,7	52,1
	10-19 year	44	37,0	37,0	89,1
	20-29 year	10	8,4	8,4	97,5
	30+	3	2,5	2,5	100,0
	Total	119	100,0	100,0	

48.7% of the participants have been employed in the municipality between 2-9 years while 37% is between 10-19 years. These rates show that the participants have been working in the municipality for a long time and have sufficient knowledge and experience about the corporate culture, conditions, management style and practices of the municipalities they work for.

Table 23 *Total Number of Employee*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 750	20	16,8	16,8	16,8
	Between 750-1249	27	22,7	22,7	39,5
	Between 1250-1749	18	15,1	15,1	54,6
	Between 1750-2249	19	16,0	16,0	70,6
	2250+	35	29,4	29,4	100,0
	Total	119	100,0	100,0	

29.4% of the participants of the research are work in the municipalities which have more than 2250 personnel followed by 22.7% between 750-1249 personnel.

Table 24 *Municipality Status*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Metropolitan	27	22,7	22,7	22,7
	Sub-Provincial Municipality	92	77,3	77,3	100,0
	Total	119	100,0	100,0	

The 22.7% of participant municipality is metropolitan, while 77.3% is sub-provincial municipality.

5.3.2.3.Reliability and validity analysis

Table 25 *KMO an Bartlett's Test*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,933
Bartlett's Test of Sphericity	Approx. Chi-Square	3525,780
	df	630
	Sig.	,000

In the light of these data, the KMO test value was measured as 0.933. This value shows that the sample size of 119 people is sufficient in the study. The comparison values regarding the KMO value found are given below. Depending on the KMO value found, the following evaluations are made about the sample size.

• "bad" between 0.50-0.60

• "weak" between 0.60-0.70

• "medium" between 0.70-0.80

• "good" between 0.80-0.90

• "perfect" above 0.90

If the KMO value is lower than 0.50, more questionnaires should be included in the process (Akdağ, 2021).In addition, considering the significance value of the Bartlett test results as in the Chi-square test, it can be said that the data come from a multivariate normal distribution from the P:0.00<0.05 comparison.

Table 26 *Reliability Statistics*

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,968	,971	36

In the evaluation of the alpha coefficient (α) (Özdamar, 2004);

• If $0.00 \leq \alpha < 0.4$, the scale is unreliable.

• If $0.4 \leq \alpha < 0.6$, the scale has low reliability.

• If $0.6 \leq \alpha < 0.8$, the scale is quite reliable.

• If $0.8 \leq \alpha < 1$, the scale is a highly reliable scale.

In the reliability test for the 36-item scale, α = Cronbach's Alpha value was found to be 0.968. If we compare this value according to the criteria we have given above, it is seen that the reliability of the social performance index is at a high level.

Table 27 Human Capital KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,869
Bartlett's Test of Sphericity	Approx. Chi-Square	668,434
	df	66
	Sig.	,000

In the light of these data, the KMO test value was measured as 0.869. This value shows that the sample size of 119 people is sufficient in the study.

Table 28 *Human Capital Reliability Statistics*

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,881	,888	12

In the reliability test for the 12-item scale, α = Cronbach's Alpha value was found to be 0.968. If we compare this value according to the criteria we have given above, it is seen that the reliability of human capital is at a high level.

Table 29 *Social and Relationship Capital KMO and Bartlett's Test*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,939
Bartlett's Test of Sphericity	Approx. Chi-Square	1358,027
	df	105
	Sig.	,000

In the light of these data, the KMO test value was measured as 0.939. This value shows that the sample size of 119 people is sufficient in the study.

Table 30 *Social and Relationship Capital Relaibility Statistics*

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,945	,951	15

In the reliability test for the 15-item scale, α = Cronbach's Alpha value was found to be 0.945. If we compare this value according to the criteria we have given above, it is seen that the reliability of social and relationship capital is at a high level.

Table 31 *Natural Capital KMO and Bartlett's Test*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,682
Bartlett's Test of Sphericity	Approx. Chi-Square	84,619
	df	3
	Sig.	,000

In the light of these data, the KMO test value was measured as 0.682. This value shows that the sample size of 119 people in the study was weak.

Table 32 *Natural Capital Reliability Statistics*

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,736	,753	3

In the reliability test for the 3-item scale, α = Cronbach's Alpha value was found to be 0.736. If we compare this value according to the criteria we have given above, it is seen that the reliability of natural capital is at a very reliable level.

Table 33 *Intellectual Capital KMO and Bartlett's Test*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,864
Bartlett's Test of Sphericity	Approx. Chi-Square	316,011
	df	15
	Sig.	,000

In the light of these data, the KMO test value was measured as 0864. This value shows that the sample size of 119 people in the study is good and sufficient.

Table 34 *Intellectual Capital Reliability Statistics*

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,852	,865	6

In the reliability test for the 6-item scale, α = Cronbach's Alpha value was found to be 0.852. If we compare this value according to the criteria given above, it is seen that the reliability of intellectual capital is at a high level.

Table 35 *Scale Questions Mean and Deviations*

Scale Questions	N	Mean	Median	Mode	Std. Deviation	Variance
1	119	3.916	4	4	1.0049	1.010
2	119	3.790	4	4	1.0960	1.201
3	119	4.025	4	4	.9156	.838
4	119	3.630	4	3	1.0725	1.150
5	119	3.966	4	5	1.1194	1.253
6	119	3.479	4	4	1.1921	1.421
7	119	4.378	5	5	.8335	.695
8	119	4.218	4	5	.9492	.901
9	119	4.244	4	5	.8827	.779
10	119	3.622	4	4	1.0969	1.203
11	119	2.462	2	2	1.1774	1.386
12	119	3.361	3	3	1.2124	1.470
13	119	3.815	4	4	1.0812	1.169
14	119	4.420	5	5	.8285	.686
15	119	4.244	4	5	.9294	.864
16	119	4.143	4	4	.9047	.818
17	119	3.647	4	5	1.2927	1.671
18	119	4.176	4	5	.9080	.825
19	119	3.303	3	5	1.2990	1.687
20	119	3.866	4	5	1.1639	1.355
21	119	4.176	4	5	.9446	.892

22	119	4.193	4	5	.9503	.903
23	119	4.370	4	5	.7115	.506
24	119	4.025	4	4	.9608	.923
25	119	4.437	5	5	.8698	.757
26	119	4.126	4	4	.8978	.806
27	119	3.723	4	5	1.2346	1.524
28	119	4.017	4	4	.9204	.847
29	119	4.235	4	5	.9086	.826
30	119	4.244	4	4	.8127	.660
31	119	4.160	4	4	.7917	.627
32	119	4.084	4	4	.9259	.857
33	119	4.571	5	5	.7080	.501
34	119	3.807	4	4	1.1068	1.225
35	119	4.202	4	5	.9350	.874
36	119	4.126	4	5	.9791	.959

Considering the averages of the 36 questions that make up the 5-point Likert scale, the questions that the municipal personnel stated as having the highest importance when evaluating their institutions and the capitals containing the questions are as follows:

a. With an average of 4,571, the most important question for municipalities is the 33rd question, and the related question is under the scale of **social and relationship capital**.

b. With an average of 4,437, the most important question for institutions is the 25th question, and the related question is under the scale of **intellectual capital.**

c. With an average of 4,420, the most important question for institutions is the 14th question, and the related question is under the scale of **social and relationship capital.**

d. With an average of 4,378, the most important question for institutions is the 7th question, and the related question is under the scale of **human capital.**

e. With an average of 4,370, the most important question for institutions is the 23rd question, and the related question is under the scale of **social and relationship capital.**

f. With an average of 4,244, the most important question for institutions is the 15th and 30th questions, and the related question is under the scale of **social and relationship capital.**

g. With an average of 4,235, the most important question for institutions is the 29th question, and the related question is under the scale of **social and relationship capital.**

h. With an average of 4,218, the most important question for institutions is the 8th question, and the related question is under the scale of **human capital.**

i. With an average of 4,202, the most important question for institutions is the 35th question, and the related question is under the scale of **social and relationship capital.**

j. With an average of 4,193, the most important question for institutions is the 22nd question, and the related question is under the scale of **social and relationship capital**

When we examine the criteria by which municipal employees rank their importance in terms of their institutions, there are 7 social and relationship capital, 2 human capital and 1 intellectual capital assessments on the basis of the first 10 criteria. According to these results; it can be said that municipal employees state that their institutions give importance to social and relational capital sub-criteria the most.

Table 36 *Capitals*

Scale Questions	N	Mean	Median	Mode	Std. Deviation	Variance
Human Capital	119	3.758	4	3,66	0.693	.480
Social and Relationship Capital	119	4.148	4	5	0.706	.499
Natural Capital	119	3.955	4	5	0.832	.693
Intellectual Capital	119	4.004	4	5	0.780	.608

Table 37 *Comparison Tests*

Municipality Status						
Variable	**Groups**	**Number**	**Mean**	**Std. Dev.**	**P**	**Degree of Freedom**
Human Capital	Metropolitan	27	3.85	0.66	0.884	117
	Sub-Province	92	3.73	0.70		
Social and Relationship Capital	Metropolitan	27	4.28	0.63	0.703	117
	Sub-Province	92	4.11	0.73		
Natural Capital	Metropolitan	27	4.21	0.68	0.272	117
	Sub-Province	92	3.88	0.86		
Intellectual Capital	Metropolitan	27	4.14	0.77	0.752	117
	Sub-Province	92	3.97	0.78		
Socail Capital Index	Metropolitan	27	4.11	0.64	0.988	117
	Sub-Province	92	3.94	0.70		

*Independent sample t test (Independent-Sample T Test) was applied.

**(There is a significant difference if $p < 0.05$).

According to the independent sample t-test result, it cannot be said that all indexes or scales of employees differ according to the type of municipality. ($P = \ldots. > 0.05$)

Table 38 *Have you ever heard integrated reporting before?*

Have you heard Integrated Reporting model before?						
Variable	Groups	Number	Mean	Std. Dev.	P	Degree of Freedom
Human Capital	Yes	70	3.86	0.73	0.435	117
	No	49	3.61	0.61		
Social and Relationship Capital	Yes	70	4.23	0.77	0.169	117
	No	49	4.03	0.59		
Natural Capital	Yes	70	4.06	0.89	0.173	117
	No	49	3.80	0.73		
Intellectual Capital	Yes	70	4.10	0.84	0.232	117
	No	49	3.86	0.67		
Social Performance Index	Yes	70	4.07	0.75	0.142	117
	No	49	3.85	0.57		

*Independent sample t test (Independent-Sample T Test) was applied.

**(There is a significant difference if $p < 0.05$). *Independent sample t test (Independent-Sample T Test) was applied.

**(There is a significant difference if $p < 0.05$).

According to the independent sample t-test result, it cannot be said that all indexes or scales differ depending on whether the employees have heard of the Integrated Reporting model of the municipality or not. (P = …. > 0.05)

Another result obtained from the table is that while 70 of the 119 participants had heard of the Integrated Reporting Model before, 49 stated that they had not. It is significant that the Integrated Reporting model is highly known by local government employees.

Table 39 *Do you think that the financial and social reports published by your municipality are close to the integrated reports?*

Do you think that the financial and social reports published by your municipality are close to the integrated reports?						
Variable	Groups	Number	Mean	Std. Dev.	P	Degree of Freedom
Human Capital	Yes	75	3.89	0.64	0.472	117
	No	44	3.53	0.72		
Social and Relationship Capital	Yes	75	4.29	0.61	0.141	117
	No	44	3.90	0.80		
Natural Capital	Yes	75	4.12	0.78	0.737	117
	No	44	3.68	0.86		
Intellectual Capital	Yes	75	4.16	0.72	0.789	117
	No	44	3.73	0.81		
Social Performance Index	Yes	75	4.12	0.61	0.397	117
	No	44	3.73	0.75		

*Independent sample t test (Independent-Sample T Test) was applied.

**(There is a significant difference if $p < 0.05$).

According to the independent sample t-test results, it cannot be said that the employees think that all indexes or scales are close to the integrated reports with financial and social content published by their municipalities. (P = …. > 0.05)

%63 of the respondents thinks that financial and social reports published by their municipalities are close to integrated reporting.

Table 40 *Do you think the Integrated Report format is applicable by your municipality?*

Do you think the Integrated Report format is applicable by your municipality?						
Variable	Groups	Number	Mean	Std. Dev.	P	Degree of Freedom
Human Capital	Yes	84	3.92	0.61	0.848	117
	No	24	3.50	0.62		
Social and Relationship Capital	Yes	84	4.31	0.59	0.769	117
	No	24	3.80	0.68		
Natural Capital	Yes	84	4.11	0.74	0.427	117
	No	24	3.60	0.86		
Intellectual Capital	Yes	84	4.17	0.68	0.430	117
	No	24	3.66	0.81		
Socail Capital Index	Yes	84	4.14	0.58	0.684	117
	No	24	3.66	0.66		

*Independent sample t test (Independent-Sample T Test) was applied.**(There is a significant difference if p < 0.05).

According to the independent sample t-test results, it cannot be said that the employees think that all indexes or scales are close to the integrated reports with financial and social content published by your municipality. (P = …. > 0.05)

Another result obtained from the table is that 84 out of 119 respondents, 71%, think that Integrated Reporting is applicable in local governments.

Table 41 *The Effect of Subscales on Social Performance Index*

Independent Variables	Beta	Std. Dev.	Std. Beta	P	R square
Constant (β0)	1.581	0.000		0.000	
Human Capital (β1)	.333	0.000	.336	0.000	
Social and Relationship Capital (β2)	.417	0.000	.429	0.000	0.989
Natural Capital (β3)	.083	0.000	.101	0.000	
Intellectual Capital (β4)	.167	0.000	.189	0.000	

*Dependent Variable: Social Performance Index

Whether other scales affect the social performance index, and if so, the regression equation that may occur depending on this has been calculated.

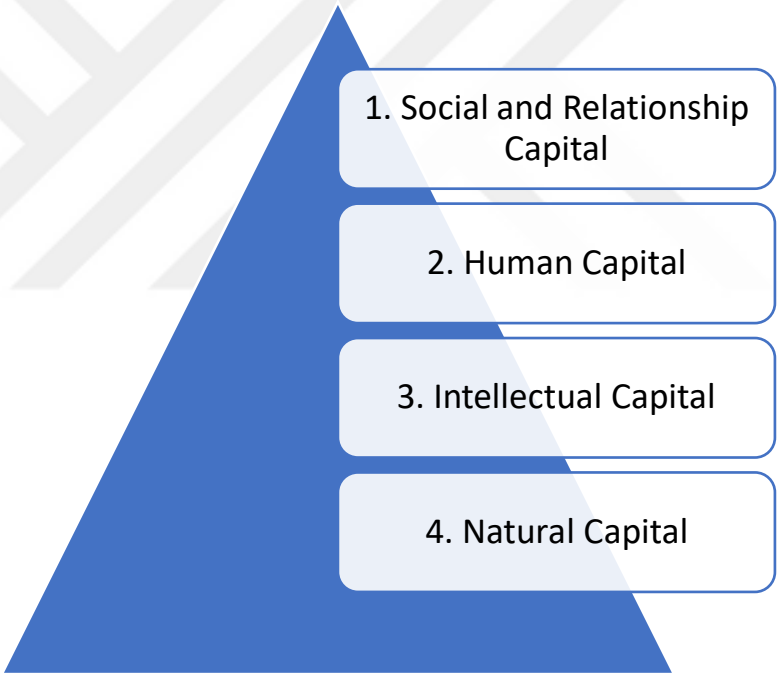
Social capital index = 1.581 + 0.333 (Human Capital) + 0.417 (Social Relationship capital) + 0.83 (Natural Capital) + 0.167 (Intellectual Capital)

According to the table, Social performance index and subscales (; P=0.000 < α=0.001), the regression coefficients found for the simple linear regression model are significant and not equal to zero.

98.9% of the change in the Social Performance Index is determined by the subscales. It is seen that all of the sub-scales affect the Social Performance Index positively.

When the degree of impact of the capital criteria on the Social Performance Index is examined, the integrated reporting capital of the municipal employees; social and relational capital, human capital, natural capital and intellectual capital are as follows:

Figure 17 *Results*



5.4. Integrated Reporting Model Development and Performance Measurement Through Multi-Criteria Decision Making Method for Local Authorities

Before explaining the analysis results of the model, which is aimed to be developed for integrated performance measurement for local governments within the

scope of the study, information about multi-criteria decision making methods will be given in the next section. Then the research results will be explained.

5.4.1. Multi-criteria decision making method

5.4.1.1.Decision theory

People have to make decisions both in their business and private lives. For example; The manager, who will make the purchase decision for a company, has to make a purchase decision for the energy-friendly washing machine he will buy for his home.

The most basic task of business managers is decision making. Managers have made their decisions in the past; based on their experience, intuition, and limited knowledge. However, over time, increasing competition, cost, complexity of relations, etc. For rational reasons, in addition to experiences, intuitions and limited information, the decision process should be evaluated analytically in order to make rational decisions.

By making a decision, that is, by making a choice among the available alternatives, managers actually explain the outcome of a process. Stages of the decision-making process (Koçel, 2001):

- Goal setting or problem identification,
- Examining goals and problems, determining priorities,
- Determination of alternative,
- Examining and valuing alternatives,

It can be listed as determining the selection criteria and making a choice.

Decision problems are the problems of choosing the best possible alternative among all available alternatives; It includes alternatives, current events, probabilities of current events, outcomes and criteria.

5.4.1.2.Decision types

It is possible to group and classify the decisions made in the management of enterprises according to different criteria. The most commonly used classifications regarding decision types are:

- Programmable and non-programmable decisions,
- Strategic and operational decisions,
- Individual and group decisions,
- Lower and upper level decisions,
- Decisions made under conditions of certainty and uncertainty.

A decision taken may be included in one of the above classifications or may be included in several of them. For example, most decisions made at higher levels are strategic, non-programmable, and made under conditions of uncertainty.

Decisions; events, according to the relationship between the probability of events occurring:

- Decision making in case of certainty,
- Decision making in case of risk,
- Decision making in case of uncertainty,

- Decision making with partial information,
- Competitive decision making.

5.4.2. Multi-criteria decision making

In today's world, people who have to make decisions, both individually and on a larger scale, act by considering more than one criterion while making their decisions. For example; While taking a price-based decision, long-term relationships are taken into account instead of only the cost dimension, sustainability, environmental awareness, etc. A decision-making process is operated in which more than one variable is taken into account, which also takes into account the parameters.

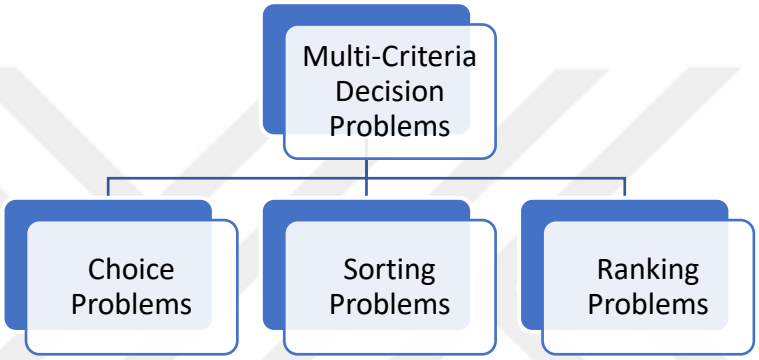
We can categorize the choice difficulties as short-, medium-, and long-term when we look at them in the context of time. Long-term choices are large-scale, strategic choices intended to infuse the business with new ideas. These are choices that affect more management practices and medium-term decisions that interfere with techniques of practices. On the other hand, operationally speaking, short-term decisions are those that govern daily activity (Ishizaka & Nemery, 2013).

Multi-criteria decision-making is the structure in which multiple disciplines such as mathematics, management, informatics, psychology, social sciences and economics come together and the methods that enable the decision maker to evaluate the decision problem with more than one dimension and make a decision are brought together.

5.4.2.1.Multi-criteria decision-making problems

Three basic categories can be used to evaluate multi-criteria decision-making issues. These issues are ones with choosing, sorting, and ranking, shown in Figure 18 below. (Vassilev, Genova, & Vassileva, 2005).

Figure 18 *Multi-Criteria Decision-Making Problems*



Note. This figure is taken from "*A Brief Survey of Multicriteria Decision Making Methods"*, Vassilev, Genova and Vassileva, *Bulgarian Academy of Sciences Cybernetics and Information Technologies*, 2005, p. 4.

a. **Choice Problems:** The goal of selection problems is to select the best alternative from a set of several alternatives that are difficult to compare to one another or have equal weights. The person a management chooses for a particular project is an example of such an issue. The goal is to select the best solution for the middle problem from the available possibilities.
b. **Sorting Problems:** Alternatives are categorized in these issues based on specific standards or preferences. Reassembling alternatives that exhibit comparable traits and behaviors is the major goal here. For instance, classifying an employee's performance at work as strong, average, or weak and then evaluating them accordingly is a classification challenge.

c. **Ranking Problems:** Alternatives are ranked from good to terrible in ranking problems in a quantifiable or definable manner. This sorting procedure can have many different parts. One example of this multi-part structure would be the factors considered while rating the top universities in the world.

5.4.2.2. Multi-criteria decision making techniques

Although there are many techniques used in the solution of multi-criteria decision making problems today, computer programs developed for the application of these techniques, thanks to the developing technology, bring great convenience to researchers, managers and decision makers trying to solve the problem.

The techniques created in accordance with the aforementioned problem kinds will be listed on a table and categorized in this part. Table 43 below lists the multi-criteria decision-making issues and solutions (Ishizaka & Nemery, 2013).

Table 42 *Multi-Criteria Decision Making Problems and Techniques*

Choice Problems	**Sorting Problems**	**Ranking Problems**
AHP	AHP	AHPSort
ANP	ANP	UTADIS
MAUT/UTA	MAUT/UTA	UTADIS
MACBETH	MACBETH	ELECTE-Tri
PROMETHEE	PROMETHEE	
ELECTRE I	ELECTRE II	

TOPSIS	TOPSIS	
Goal Programming		

Note. This table is taken from "Multi-Criteria Decision Analysis Methods and Software", by Ishizaka and Nemery, published by Wiley, 2013

1. **Analytical Hierarchy Process (AHP):** By exposing the choice problem's hierarchical structure, AHP assesses decision alternatives in terms of criteria. AHP enables the decision-maker to identify the optimal alternative and determine the significance of the criteria in relation to the goal.
2. **Analytic Network Process (ANP):** ANP is a method of decision-making that uses a network structure rather than a top-down, one-way hierarchy and considers the interaction between criteria.
3. **Vise Kriterijumska Optimizacija I Kompromisno Resenje (VIKOR):** A method called the VIKOR approach was created for the optimization of intricate multi-criteria systems. When there are competing criteria, the VIKOR technique focuses on selecting and organizing the possibilities (Hwang & Yoon, 1981).
4. **Elimination Et Choice Translating Reality (ELECTRE):** One of the multi-scale decision-making techniques is the ELECTRE approach. The approach is based on assessments of pairwise superiority between various criteria. This method enables researchers and decision-makers to incorporate a large number of quantitative and qualitative factors into the decision-making process, weight the criteria in accordance with their objectives, and choose the best choice by averaging their weights.
5. **Preference Ranking** Organizational Method for Evaluations of Enrichment (PROMETHEE): Picking the best option from the various options is

challenging. Some criteria should be eliminated while others should be enhanced because each choice can be superior to one another in different ways. The class of multi-criteria decision issues includes choosing the option that is most appropriate for the purpose or ranking these alternatives. A multi-criteria priority determination method called PROMETHEE was created to find the best solution for the decision maker's request in selection and ranking issues.

6. **Data Envelopment Method:** Utilizing resources efficiently is necessary given the current economy's shifting dynamics and highly competitive environment. The extent to which the decision-making units utilize their resources efficiently determines whether they will continue to exist and whether the goals they have set will be met.
7. **Grey Relational Analysis (GRI):** The choices we have made throughout the years have brought us to where we are now and have created repercussions that we must live with. Decisions made at a level that will have an impact on both a person and a nation are very significant in terms of the outcomes they produce and how legally binding those outcomes are. Because of this, study has been conducted on decision-making as a crucial aspect of human existence.
8. **Multi-Objective Optimization on basis of Ratio Analysis (MOORA):** For multi-objective optimization with discrete options, MOORA is advised. This approach makes use of the matrix containing the alternatives' solutions for the uses to which ratios are put to use. It serves as a benchmark.
9. **Measuring Attractiveness by a Categorical Based Evaluation Technique (MACBETH):** MACBETH, a multivariate decision-making methodology, is a

strategy that demonstrates to the decision-maker the relative preference level of many possibilities. The methodology mostly relies on qualitative comparisons of the possibilities and their criteria. In the MACBETH technique, pairwise comparisons make use of phrases like "weak" and "strong," which are based on semantic assessments.

10. **Utilite Additives (UTA):** UTA, a regression-based approach, employs techniques from linear programming to produce optimal utility functions that are in line with the decision-preferences. maker's One of the simplest ways to express the aggregation-decomposition strategy is the UTA method. A collection of techniques known as the aggregation-decomposition approach helps decision support systems find a general model that is appropriate for the given structure.
11. **STEM:** The STEM method is presented as a solution technique for multi-objective linear programming problems. In the method, it can be used easily when the decision maker does not have enough information about the relative importance of the objective functions.
12. **Potentially All Pairwise Rankings of All Possible Alternatives (PAPRIKA):** It is used in solving decision problems about ranking, choosing between alternatives or prioritizing by calculating the weight values determined according to the criteria and attributes with the PAPRIKA method. With the help of weight values, it is ensured that the attributes and criteria are ordered in order of importance.

    In this study, AHP method is used for the integrated model creation. Detailed information about the AHP method is given below.

5.4.2.2.1. Analytical hierarchy process (AHP)

Thomas L. Saaty created the Analytical Hierarchy Process (AHP) at the Wharton School of Business in the 1970s to address challenging multi-criteria decision-making issues. When determining the relative priority levels for each criterion, the technique calls for the decision maker's (expert) input. By responding to questionnaires created using Saaty's 1–9 scale, decision-makers assess criteria and sub-criteria. The priority order of the decision options is determined by considering each criterion. (Anderson, Sweeney, & Williams, 2008).

There are numerous methods for making multi-criteria decisions. The key benefits of AHP over conventional methods are its simplicity and ability to be successfully utilized in complicated decision-making situations that involve both subjective and objective assessments (Timor, 2011).

AHP narrows down the multidimensional problem to just one dimension by determining the relative weights of the criteria and sub-criteria. The ranking's priority vectors are used to make decisions in order to select the best result out of a large number of options. Numerous decision-makers (managers, engineers, financial specialists, marketing experts, etc.) may participate in an enterprise decision. With AHP, a single outcome can be obtained by combining the judgments of individuals (groups) with various levels of experience, education, and knowledge (Saaty, 2008).

AHP is a useful tool for solving decision-making issues and evaluating decision alternatives. Applications like estimate, resource allocation, and ranking among criteria with varying degrees of relevance all regularly employ AHP (Forman

& Selly, 2002). being able to compare criteria in pairs utilizing the AHP eigenvalue method; It is a multi-criteria decision-making tool that performs the numerical scale's calibration in order to measure performance both quantitatively and qualitatively (Vaidya & Kumar, 2006).

a. Scale Used in AHP Method

While using the AHP technique, criteria and alternatives are compared in pairs by experts. Saaty's 1-9 scale is frequently used in this comparison. Table shows the significance of Saaty's scale (Timor, 2011).

Table 43 *Table of significance levels used in comparisons*

Significance Level	Description	Explanation
1	Equally Important	Both factors are equally important
3	Moderately Important	According to experience and judgment, one factor is slightly more important than the other.
5	Strongly Important	One factor is strongly more important than the other.
7	Very Strongly Important	One factor is strongly more important than the other
9	Absolutely Important	One of the factors is much more important than the other.

2,4,6,8	Represents Intermediate Values	They are the intermediate values of the degrees found in the explanations above in the preference between the two factors.
Mutual Values	If a value (x) is assigned when comparing i with j; The value to assign when comparing j with i will be (1/x).	

Note. This table is taken from *"Analitik Hiyerarşi Prosesi"*, M. Timor, *Türkmen Kitabevi*, 2011.

b. Solution Stages of the AHP Method

Pairwise comparisons of the items at the appropriate level should be performed in the phase that follows the formation of the decision problem's hierarchical structure in order to determine the priority values of the criteria at each level of the hierarchy.

c. Mathematical Infrastructure of AHP Method

Pairwise comparisons are used to determine the weights (w) of the criteria. Decision-makers are not required to compare numbers. For pairwise comparisons in the literature, Saaty's scale of 1–9 is typically employed. Positive comparison values are all present. The diagonal entries of the comparison matrix are assigned the value 1. It is compared to itself, which is why.

If comparing n criteria based on their relative weights of importance is something you want to do, with criteria $a_1, a_{2,\ldots,} a_n$ and weights $w_a, w_{2,\ldots,} w_n$, the

general structure of the pairwise comparison matrix will be as shown below (Tzeng & Huang, 2011):

$$A = \begin{bmatrix} a_{11} \cdots & a_{1j} \cdots & a_{1n} \\ \vdots & \vdots & \vdots \\ a_{i1} \cdots & a_{ij} \cdots & a_{in} \\ \vdots & \vdots & \vdots \\ a_{n1} \cdots & a_{nj} \cdots & a_{nn} \end{bmatrix} \qquad \textit{Equation 1}$$

Here $a_{ij} = \frac{1}{a_{ji}}$ (according to reciprocity) and $a_{ij} = \frac{a_{ik}}{a_{jk}}$ In real problems, the result $\frac{w_i}{w_j}$ is often unknown. Therefore, what needs to be solved in AHP is to find the value of a_{ij} as $a_{ij} \cong \frac{w_i}{w_j}$ (Tzeng & Huang, 2011).

The general form of the weight matrix is given below

$$W = \begin{array}{c} \\ w_1 \\ \vdots \\ w_i \\ \vdots \\ w_n \end{array} \begin{array}{c} \begin{array}{ccccc} w_1 & \cdots & w_j & \cdots & w_n \end{array} \\ \begin{bmatrix} w_1/w_1 \cdots & w_1/w_j \cdots & w_1/w_n \\ \vdots & \vdots & \vdots \\ w_i/w_1 \cdots & w_i/w_j \cdots & w_i/w_n \\ \vdots & \vdots & \vdots \\ w_n/w_1 & w_n/w_j & w_n/w_n \end{bmatrix} \end{array} \qquad \textit{Equation 2}$$

Multiplying the W by the w values;

$$W.w = \begin{array}{c} \\ w_1 \\ \vdots \\ w_i \\ \vdots \\ w_n \end{array} \begin{array}{c} \begin{array}{ccccc} w_1 & \cdots & w_j & \cdots & w_n \end{array} \\ \begin{bmatrix} w_1/w_1 \cdots & w_1/w_j \cdots & w_1/w_n \\ \vdots & \vdots & \vdots \\ w_i/w_1 \cdots & w_i/w_j \cdots & w_i/w_n \\ \vdots & \vdots & \vdots \\ w_n/w_1 \cdots & w_n/w_j \cdots & w_n/w_n \end{bmatrix} \end{array} \begin{bmatrix} w_1 \\ \vdots \\ w_i \\ \vdots \\ w_n \end{bmatrix} = n \begin{bmatrix} w_1 \\ \vdots \\ w_i \\ \vdots \\ w_n \end{bmatrix} \qquad \textit{Equation 3}$$

or as shown below

$$\textit{Equation 4}\ (W - nI)w = 0 \quad \textit{(4)}$$

The solution of the above equation is the eigenvalue finding problem. Their relative weights are calculated with the w eigenvector found based on Λ_{Max}which satisfies the $(Aw = \Lambda_{Max}I)w = 0$ equation. Here $\Lambda_{Max}$is the largest eigenvalue of the matrix A and the eigenvector w is obtained by the equation $(A - \Lambda_{MaxI})w = 0$ depending on Λ_{Max}.

Additionally, two parameters, Consistency Index (CI) and Consistency Ratio (CR), are applied to guarantee the accuracy of relative weights as well as the consistency of subjective perceptions. The following formula is used to calculate the Consistency Index (CI).

$$CI = \frac{(\Lambda_{Max} - n)}{(n-1)} \quad \textit{Equation 5}$$

Here $\Lambda_{Max}$is the largest eigenvalue and n is the total number of features (criteria). In order to obtain a reliable result, the CI value should not exceed 0.1 (Tzeng & Huang, 2011).

The following formula is used to calculate the consistency ratio:

$$CR = \frac{CI}{RI} \quad Equation\ 6$$

RI stands for "Random Value Index". It is derived from a large sample of a randomly generated cross-comparison matrix. The RI values according to the different element numbers (n).

Consistency ratio (CI) is expected to be below 0.1 for reliable and realistic results.

d. Constitution of the Hierarchical Structure

In the formation of the hierarchical structure, first of all, the purpose of the decision problem should be determined. In other words, it starts from the top level of the hierarchy. Because criteria and alternatives will be shaped according to the purpose. The purpose should be clear and understandable.

Uncertainties and other influencing criteria can be incorporated into the hierarchical structure. Experience and intuition can be used to determine the criteria. AHP is not only a tool for decision makers in structuring complexity, it is also used to combine objective and subjective criteria in the decision process. AHP is a balancing decision methodology because the performance of an alternative that is underestimated by more than one criterion may be counterbalanced by other criteria.

e. Constitution of Decision Matrix in AHP

For a simpler understanding of the creation of the decision matrix, it will be explained through an example. The numerical ratio "1" in the decision matrix is

always used to compare the alternative with itself. In the rows and columns of the comparison matrix, there are 1st, 2nd, ... alternatives, respectively. Below are the responses to the sample comparison questionnaire for the 3 criteria and the comparison matrix.

Table 44 *Comparison survey example*

Net fees	9 X	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Performance fees
Net fees	9	8	7	6	5	4	3	2	1 X	2	3	4	5	6	7	8	9	Job security
Performance fees	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9 X	Job security

A: Net fees

B: Performance fees

C: Job security

Table 45 *A Comparison Matrix*

Criteria	A	B	C
A	1,00	9,00	1,00
B	0,11	1,00	0,11
C	1,00	9,00	1,00

This resulting matrix will then be transformed into a priorities vector. The sum of the elements of this matrix is 1. A comparison vector is available for each criterion. For each element of the comparison matrix, the "Matrix of Priorities" is combined with alternatives in rows and decision criteria in columns to form "Matrix of All Priorities". Finally, the "Fitness Ratio" is calculated.

Table 46 *A Comparison Matrix (Continues)*

Criteria	A	B	C
A	1,00	9,00	1,00
B	1/9	1,00	0,11
C	1/1	1/(0,11)	1,00

It is sufficient to compare only the elements on the diagonal of the matrix with each other. Since the calculation of elements below the diagonal depends on the elements above the diagonal, they do not need to be asked again.

f. Consistency in AHP

In AHP, the consistency ratio is calculated for pairwise comparisons. Acceptance of weight values (w) is appropriate where the consistency ratio is less than 0.1 (Saaty & Sağır, The Encyclicon: A Dictionary of Decisions with Dependence and Feedback Based on the Analytic Network Process, 2005).

1. Eigenvalues and Eigenvectors of the Matrix

For the square matrix $A_{n*n}$with real elements and the non-zero vector x_{n*1}, if there is a scalar Λ that implements the equality of $Ax = \Lambda x$ then this nonzero vector x_{n*1} is an eigenvector. The Λ scalar is an eigenvalue of the A_{n*n} square matrix. Eigenvectors and eigenvalues are only defined for square matrices (Tulunay, 1991). Also, since the following equation will be valid for every scalar, a zero vector cannot be an eigenvector, but an eigenvalue can be zero.

$$AO = \Lambda 0 \quad \textit{(7) Equation 7}$$

For a square matrix with real elements A_{n*n} for a solution of the $(A - \Lambda I)\vec{x} = 0$ homogeneous linear system of equations other than $\vec{x} = \vec{0}$, the following condition must be fulfilled.

$$\begin{bmatrix} a_{11} - \Lambda & a_{12} & \cdots & a_{1n} \\ a_{21} & a_{22} - \Lambda & \cdots & a_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{n1} & a_{n2} & \cdots & a_{nn} - \Lambda \end{bmatrix} = 0 \quad \textit{Equation 8}$$

Accordingly, the general form of the characteristic equation is shown as an n-degree equation in terms of Λ by expanding the determinant as follows.

$$c_n\Lambda^n + c_{n-1}\Lambda^{n-1} + \cdots + c_1\Lambda + c_0 = 0 \quad c \neq 0 \qquad \textit{Equation 9}$$

2. Eigenvalue and Eigenvector in AHP

Consistency of pairwise comparisons made by decision makers is one of the most important elements of AHP. According to the AHP method, the eigenvalues and eigenvectors of the comparison matrix help to determine the order of priority. The eigenvector corresponding to the largest eigenvalue determines the priorities (Timor, 2011). The solution to this equation is the eigenvalue finding problem.

$$(W - nI)w = 0 \quad \textit{Equation 10}$$

3. Consistency in AHP

In the AHP technique, while calculating the importance or priority values of the elements depending on the pairwise comparison matrix, the pairwise comparisons made are based on subjective grounds, so mistakes and inconsistencies may arise. A consistency ratio of less than 0.1 is considered good.

The Consistency Index (CI) is calculated using the formula below.

$$CI = \frac{(\Lambda_{maks} - n)}{(n-1)} \quad \textit{Equation 11}$$

The following formula is used to calculate the Consistency Ratio (CR).

$$CR = \frac{CI}{RI} \quad \textit{Equation 12}$$

The largest value among the eigenvalues of a square matrix is expressed by Λ_{max} (In order to calculate Λ_{max}, each element of the entire priority matrix is divided by the elements of the priorities vector, and the new matrix elements obtained are averaged). RI represents the random value index and is used in operations by selecting the appropriate value from the values given in Table 39.

All these processes counted in AHP can be accessed directly by matrix calculations or in a computer environment. With Excel or Expert Choice, Super Decision etc. can be done with software packages.

Table 47 *Random value index table*

Number of Decision Alternatives (n)	1	2	3	4	5	6	7	8	9	10
Random Value Index	0	0	0.52	0.89	1.11	1.25	1.35	1.40	1.45	1,49

4. Group Decision Making in AHP

In the application of the AHP technique, instead of resorting to the judgment of a single person, the judgment of a group of experts on that subject is generally applied. While forming the group judgment, if the group members are independent from each other and in different environments, information about each member's

judgment is obtained and this information is combined mathematically. The mathematical combination of personal judgments is accomplished by taking the geometric mean of the elements of the pairwise comparison matrices. The consistency ratio of the created group matrix is expected to be below 0.1.

There are two important issues in group decision making. The first important issue is that the individual judgments within the group are combined to form a single judgment that represents the entire group. The second issue is the construction of a group preference from individual preferences. The mutual comparison axiom plays a role in forming group judgments by combining many individual judgments.

5.4.3. Results of AHP

5.4.3.1. Findings on social capital main criteria

Table 48 *AHP Summary Results*

Expert	Human Cap.	Social and Relationship Cap.	Natural Cap.	Intell. Cap.	Aver. Lamb. Max	(CI)	(CR)
1	0,055	0,171	0,401	0,373	4,123	0,041	0,046
2	0,192	0,172	0,077	0,559	4,112	0,039	0,043
3	0,080	0,438	0,438	0,045	4,162	0,054	0,060
4	0,151	0,387	0,373	0,090	4,236	0,079	0,087
5	0,659	0,135	0,095	0,110	4,061	0,021	0,023
6	0,103	0,480	0,140	0,277	4,223	0,075	0,082

7	0,045	0,293	0,197	0,465	4,146	0,049	0,054
8	0,145	0,054	0,227	0,574	4,266	0,089	0,099
9	0,151	0,133	0,107	0,609	4,188	0,063	0,069
10	0,254	0,159	0,048	0,538	4,218	0,073	0,081
11	0,690	0,162	0,063	0,086	4,255	0,085	0,094
12	0,436	0,169	0,291	0,103	4,261	0,087	0,097

In the dimension of social performance, 4 sub-criteria and 21 indicators were evaluated. Consistency Ratio of the experts are below 0,1 which means, the results are reliable and realistic (Tzeng & Huang, 2011). Groupe decision is taken for the calculation of the importance of 4 sub-criteria. The results are given in Table 41 below:

Table 49 *Pairwise comparisons of social performance sub-criteria*

	Human Capital	**Social and Relationship Capital**	**Natural Capital**	**Intellectual Capital**	**Weights**
Human Capital	1	1	1	1	0,2464
Social and Relationship Capital	1	1	2	1	0,2964
Natural Capital	1	0,5	1	1	0,2188

Intellectual Capital	1	1	1	1	0,25

Considering the importance degrees of the sub-dimensions; **Social and Relationship Capital** has the greatest impact on social performance of local authorities, followed by;

1. Intellectual Capital,
2. Human Capital, and
3. Natural capital respectively.

Table 50 *Local Authorities Social Performance Results between 2018-2020*

	2018(%)	**2019(%)**	**2020(%)**	**Total**
Human Capital				
Wages	0	6,64	1,95	8,59
Occupational Health and Safety	4,05	2,56	6,08	12,69
Rights of Woman Employees	0,03	0,61	3,55	4,19
The Right to Make Decisions and Participation	0,51	0,21	0,28	1
Performance Evaluation System	0,47	0,35	0,04	0,86
Vocational Training	3,24	1,89	6,28	11,41
Youth Training Support	0	0,04	0,03	0,07
TOTAL	**8,3%**	**12,3%**	**18,21%**	**38,81**

Social and Relationship Capital	**2018(%)**	**2019(%)**	**2020(%)**	**Total**
Social Projects and Investments	46,06	31,14	10,75	87,95
Anti-Corruption and Bribery	0,87	0,79	6,28	7,94
Corporate Social Responsibility Award	0,04	0,05	0,28	0,37
Citizen Satisfaction	0,67	0,51	1,38	2,56
Citizen Complaint Mechanism	1,49	0,87	7,33	9,69
Supplier Selection	0,27	0,49	0,00	0,76
Compliance with Corporate Governance	1,83	1,49	8,75	12,83
Peace, Justice and Strong Institutions	3,87	2,99	2,72	9,58
TOTAL	**55,1**	**38,33%**	**37,49%**	**128,68**
Natural Capital	**2018(%)**	**2019(%)**	**2020(%)**	**Total**
Environmentally Friendly Initiatives	5,13	3,92	14,52	23,57
Renewable Energy	5,92	4,63	8,50	19,05
Environment Awards	1,08	0,26	0,88	2,22
Sustainable Cities and Communities	9,34	7,68	5,32	22,34
TOTAL	**21,47%**	**16,49%**	**29,22%**	**67,18**

Intellectual Capital	**2018(%)**	**2019(%)**	**2020(%)**	**Total**
Patents and Copyright Indicator	7,41	16,50	3,84	27,75
Implied Knowledge, Systems and Protocols	7,72	6,11	11,23	25,06
TOTAL	**15,13%**	**22,61%**	**15,07%**	**52,81**

The social performance results of the 30 metropolitan cities within the scope of the study between the years 2018-2020 are explained in the table. The information was obtained from the annual reports published by local governments in the relevant years.

When the main criteria of the metropolitan municipalities within the scope of the study are examined, it is seen that the rate of disclosure of human capital and natural capital criteria has increased over the years, there has been a slight decrease in social and relationship capital, and a decrease in intellectual capital.

In the analysis made specifically for the main criterion of human capital, the highest rate of explanation is about occupational health and safety, and the vocational training sub-criterion ranks second. The rights granted to female employees have increased over the years. The sub-criterion explained with the lowest rate is youth training support.

The points that draw attention in the examination made specifically for the main criterion of social and relational capital; although the social projects and investments sub-criterion has the highest percentage rate, the rate of disclosure has

decreased over the years. The second highest sub-criteria in disclosure was compliance with corporate governance, and the sub-criterion with the lowest disclosure rate was the corporate social responsibility awards and then supplier selection.

In the examination made on the basis of the main criterion of natural capital, the importance given by local governments to natural capital activities has increased over the years. In particular, the sub-criterion of environmentally friendly initiatives is increasing at a remarkable level. The criteria with the lowest disclosure rate was environmental awards.

Finally, according to the main criteria of intellectual capital analysis; it is seen that the patent and copyright sub-criteria are less explained over the years, whereas the implied knowledge, systems and protocols sub-criterion is more explained in the annual reports by local governments.

Table 51 *Performance Evaluation in General Social Performance Measure*

	2018	**2019**	**2020**
İstanbul	0,036	0,026	0,060
Ankara	0,103	0,157	0,340
İzmir	0,338	0,860	2,140
Bursa	0,262	0,923	1,622
Antalya	0,517	0,750	1,171
Adana	0,212	0,367	1,048

Konya	0,153	0,323	0,558
Şanlıurfa	0,146	0,421	0,383
Gaziantep	0,206	0,474	0,420
Kocaeli	0,617	0,320	0,493
Mersin	0,544	0,477	0,684
Diyarbakır	0,314	0,240	0,285
Hatay	0,198	0,328	0,353
Manisa	0,142	0,144	0,275
Kayseri	0,149	0,183	0,632
Samsun	0,202	0,141	0,478
Balıkesir	0,303	0,236	0,423
Kahramanmaraş	0,247	0,067	0,181
Van	0,155	0,089	0,183
Aydın	0,122	0,066	0,136
Tekirdağ	0,121	0,123	0,305
Denizli	0,212	0,288	0,348
Sakarya	0,377	0,777	0,761
Muğla	0,589	0,971	1,066
Eskişehir	0,481	1,148	1,140
Trabzon	0,331	0,469	0,775
Malatya	0,464	0,381	0,513
Erzurum	0,273	0,441	0,345
Ordu	0,233	0,747	0,472

When the performances between 2018-2020 over the average score of the social performance dimension are examined; It has been observed that the performances have increased over the years in Ankara, İzmir, Bursa, Antalya, Adana, Konya, Hatay, Manisa, Kayseri, Tekirdağ, Denizli, Trabzon and Muğla.

Table 52 *Findings on Human Capital*

Expert	Wages	Occupational Health and Safety	Rights of Woman Employees	The Right to Make Decisions and Participation	Performance Evaluation System	Vocational Education	Youth Training Support	Average Lambda Max	(CI)	(CR)
1*	0,250	0,120	0,140	0,110	0,120	0,120	0,120	7,050	0,008	0,006
2*	0,030	0,030	0,440	0,080	0,050	0,140	0,240	7,523	0,087	0,066
3	0,75	0,230	0,060	0,060	0,130	0,030	0,070	8,548	0,258	0,195
4*	0,080	0,160	0,300	0,081	0,085	0,066	0,225	7,268	0,045	0,034
5	0,450	0,150	0,030	0,090	0,100	0,120	0,060	9,992	0,499	0,377
6*	0,380	1,320	1,600	1,280	0,420	0,600	1,410	7,358	0,060	0,045
7	0,020	0,400	0,122	0,136	0,182	0,052	0,091	11,248	0,708	0,536
8*	0,104	0,063	0,056	0,134	0,293	0,319	0,032	7,490	0,082	0,062
9*	0,065	0,181	0,118	0,216	0,264	0,102	0,053	7,535	0,089	0,067
10	0,046	0,141	0,390	0,188	0,096	0,046	0,092	15,064	1,344	1,018
11	0,387	0,048	0,047	0,107	0,225	0,103	0,082	14,917	1,320	1,000
12*	0,143	0,143	0,143	0,143	0,143	0,143	0,143	7,000	0,000	0,000

For the group decision calculations, experts marked with an asterisk were included in the calculation, and experts with CR>0.1 were excluded from the analysis. The results are given in Table 55 below:

Table 53 *Pairwise comparisons of human capital*

	Wages	**Occupational Health and Safety**	**Rights of Woman Employees**	**The Right to Make Decisions and Participation**	**Performance Evaluation System**	**Vocational Education**	**Youth Training Support**	**Weights**
Wages	1	1	1	1	1	1	1	0,1408
Occupational Health and Safety	1	1	1	1	1	1	1	0,1408
Rights of Woman Employees	1	1	1	2	1	2	2	0,1943
The Right to Make Decisions and Participation	1	1	0,5	1	1	1	1	0,1278
Performance Evaluation System	1	1	1	1	1	1	1	0,1408
Vocational Education	1	1	0,5	1	1	1	1	0,1278
Youth Training Support	1	1	0,5	1	1	1	1	0,1278

In the human capital sub-criterion, the rights of **Rights of Woman Employees Indicator** shows the greatest impact followed by;

1. Wages Indicator, Occupational Health and Safety Indicator and Performance Evaluation System Indicators have equal impacts.
2. The Right to Make Decisions and Participation, Vocational Education, Youth Training Support Indicators have the equal impacts.

Table 54 *Performance Evaluation in the Human Capital Subscale*

	2018	**2019**	**2020**
İstanbul	0,060	0,009	0,166
Ankara	0,018	0,104	0,130
İzmir	0,039	0,169	0,140
Bursa	0,060	0,127	0,091
Antalya	0,039	0,082	0,107
Adana	0,039	0,040	0,120
Konya	0,018	0,063	0,018
Şanlıurfa	0,060	0,063	0,041
Gaziantep	0,060	0,072	0,106
Kocaeli	0,073	0,087	0,107
Mersin	0,066	0,133	0,121
Diyarbakır	0,018	0,040	0,023
Hatay	0,039	0,040	0,107
Manisa	0,018	0,018	0,084
Kayseri	0,060	0,072	0,107
Samsun	0,018	0,018	0,098
Balıkesir	0,018	0,046	0,098
Kahramanmaraş	0,018	0,000	0,000
Van	0,018	0,040	0,000
Aydın	0,039	0,082	0,018
Tekirdağ	0,053	0,133	0,107

Denizli	0,074	0,144	0,124
Sakarya	0,087	0,077	0,079
Muğla	0,060	0,098	0,074
Eskişehir	0,054	0,106	0,120
Trabzon	0,052	0,053	0,096
Malatya	0,087	0,040	0,096
Erzurum	0,018	0,076	0,079
Ordu	0,060	0,040	0,121

When the performances between 2018-2020 over the average score of the human capital sub-dimension are examined; It has been observed that the performances have increased over the years in Ankara, Antalya, Adana, Gaziantep, Kocaeli, Hatay, Manisa, Kayseri, Samsun, Balıkesir, Eskişehir, Erzurum and Trabzon, while the performance has decreased over time in Kahramanmaraş.

Table 55 *Findings on Social and Relationship Capital*

Expert	Social Projects and Investments	Anti-Corruption and Bribery	Corporate Social Responsibility Award	Citizen Satisfaction	Citizen Complaint Mechanism	Supplier Selection	Compliance with Corporate Governance	Peace, Justice and Strong Institutions	Average Lamda max	(CI)	(CR)
1*	0,136	0,279	0,029	0,139	0,132	0,025	0,119	0,141	8,911	0,130	0,062
2*	0,029	0,196	0,024	0,242	0,233	0,053	0,118	0,105	9,098	0,157	0,056
3	0,166	0,096	0,144	0,249	0,196	0,042	0,054	0,054	14,796	0,971	0,689
4*	0,144	0,084	0,143	0,120	0,125	0,048	0,245	0,091	8,237	0,034	0,024
5*	0,258	0,074	0,040	0,086	0,057	0,276	0,126	0,082	11,194	0,456	0,324
6*	0,085	0,387	0,055	0,056	0,026	0,029	0,153	0,210	9,116	0,159	0,01
7	0,073	0,386	0,037	0,176	0,057	0,021	0,131	0,120	12,268	0,610	0,432
8	0,063	0,150	0,017	0,312	0,198	0,063	0,105	0,091	12,992	0,713	0,506
9	0,061	0,088	0,060	0,127	0,056	0,037	0,285	0,285	9,136	0,162	0,109
10	0,087	0,210	0,164	0,104	0,121	0,131	0,108	0,075	23,165	2,166	1,537
11	0,050	0,088	0,036	0,166	0,098	0,014	0,358	0,190	13,220	0,746	0,529
12	0,073	0,477	0,019	0,065	0,047	0,065	0,095	0,159	9,763	0,252	0,179

For the group decision calculations, experts marked with an asterisk were included in the calculation, and experts with CR>0.1 were excluded from the analysis. Results are given in the table below:

Table 56 *Pairwise comparisons of social and relationship capital*

	Social Projects and Investments	Anti-Corruption and Bribery	Corporate Social Responsibility Award	Citizen Satisfaction	Citizen Complaint Mechanism	Supplier Selection	Compliance with Corporate Governance	Peace, Justice and Strong Institutions	Weights
Social Projects and Investments	1	0,5	2	1	1	3	1	1	0,1287
Anti-Corruption and Bribery	2	1	4	2	2	4	1	2	0,2264
Corporate Social Responsibility Award	0,5	0,25	1	0,5	1	1	0,5	0,5	0,0684
Citizen Satisfaction	1	0,5	2	2	1	4	1	1	0,1496

Citizen Complaint Mechanism	1	0,5	1	1	1	2	1	1	0,1138
Supplier Selection	0,333	0,25	1	0,25	0,5	1	0,5	0,5	0,0548
Compliance with Corporate Governance	1	1	2	1	1	2	1	1	0,1360
Peace, Justice and Strong Institutions	1	0,5	2	1	1	2	1	1	0,1221

In the social and relationship capital sub-criterion; **Anti-Corruption and Bribery Indicator** has a significant impact followed by;

1. Citizen Satisfaction Indicator,
2. Compliance with Corporate Governance,
3. Social Projects and Investments,
4. Peace, Justice and Strong Institutions,
5. Citizen Complaint Mechanism,
6. Corporate Social Responsibility Awards and
7. Supplier Selection.

Table 57 *Performance Evaluation in Social and Relational Capital Sub-Criteria*

	2018	**2019**	**2020**
İstanbul	0,134	0,145	0,143
Ankara	0,057	0,059	0,148
İzmir	0,080	0,115	0,139
Bursa	0,073	0,069	0,068
Antalya	0,091	0,062	0,100
Adana	0,007	0,088	0,129
Konya	0,062	0,057	0,053
Şanlıurfa	0,040	0,060	0,072
Gaziantep	0,062	0,088	0,095
Kocaeli	0,081	0,097	0,068
Mersin	0,096	0,124	0,114
Diyarbakır	0,084	0,049	0,034
Hatay	0,029	0,048	0,087
Manisa	0,029	0,046	0,073
Kayseri	0,076	0,071	0,057
Samsun	0,043	0,045	0,077
Balıkesir	0,049	0,049	0,061
Kahramanmaraş	0,039	0,029	0,047
Van	0,016	0,026	0,105
Aydın	0,038	0,029	0,067
Tekirdağ	0,040	0,083	0,111

Denizli	0,037	0,079	0,082
Sakarya	0,081	0,109	0,101
Muğla	0,073	0,061	0,076
Eskişehir	0,088	0,131	0,109
Trabzon	0,087	0,033	0,101
Malatya	0,047	0,038	0,043
Erzurum	0,042	0,076	0,052
Ordu	0,052	0,076	0,067

When the performances between 2018-2020 are analyzed over the average score of the social and relational capital sub-dimension; It has been observed that the performances have increased over the years in Ankara, İzmir, Adana, Şanlıurfa, Gaziantep, Hatay, Manisa, Samsun, Balıkesir, Van, Tekirdağ, Denizli, and decreased over time in Bursa, Konya, Diyarbakır and Kayseri.

Table 58 *Findings on Natural Capital*

Expert	Environmentally Friendly Initiatives	Renewable Energy	Environment Awards	Sustainable Cities and Communities	Average Lambda max	CI	CR
1*	0,286	0,286	0,143	0,286	4,000	0,000	0,000
2	0,170	0,292	0,075	0,463	5,017	0,339	0,377
3	0,185	0,457	0,091	0,267	4,416	0,139	0,154
4*	0,250	0,250	0,250	0,250	4,000	0,000	0,000
5	0,302	0,341	0,224	0,134	6,655	0,885	0,983
6*	0,312	0,280	0,128	0,280	4,020	0,007	0,008
7*	0,318	0,318	0,045	0,318	4,001	0,00025	0,0002
8	0,256	0,186	0,069	0,488	4,357	0,119	0,132
9*	0,200	0,200	0,200	0,400	4,000	0,000	0,000
10	0,240	0,579	0,050	0,131	5,873	0,624	0,694
11	0,035	0,612	0,104	0,249	5,358	0,453	0,503
12*	0,121	0,294	0,061	0,524	4,240	0,080	0,089

For the group decision calculations, experts marked with an asterisk were included in the calculation, and experts with CR>0.1 were excluded from the analysis.

Renewable Energy and Environmentally Friendly Initiatives have a significant and equal impact on the natural capital sub-criterion, followed by;

1. Sustainable Cities and Communities, and
2. Environment awards.

Table 59 *Pairwise comparisons of natural capital*

	Environmentally Friendly Initiatives	**Renewable Energy**	**Environment Awards**	**Sustainable Cities and Communities**	**Weights**
Environmentally Friendly Initiatives	1	1	2	1	0,2887
Renewable Energy	1	1	2	1	0,2887
Environment Awards	0,5	0,5	1	1	0,1756
Sustainable Cities and Communities	1	1	1	1	0,247

Table 60 *Findings on Intellectual Capital*

Expert	Patents and Copyright Indicator	Implied Knowledge, Systems and Protocols	Average Lambda max	CI	CR
1*	0,500	0,500	2,000	0,000	0,000
2*	0,250	0,750	1,999	0,000	0,000
3*	0,500	0,500	2,000	0,000	0,000
4*	0,333	0,667	2,000	0,000	0,000
5*	0,333	0,667	2,000	0,000	0,000
6*	0,667	0,333	2,000	0,000	0,000
7*	0,500	0,500	2,000	0,000	0,000
8*	0,833	0,167	2,000	0,000	0,000
9*	0,167	0,833	2,000	0,000	0,000
10*	0,875	0,125	2,000	0,001	0,005
11*	0,500	0,500	2,000	0,000	0,000
12*	0,250	0,750	1,999	0.000	0,000

In the intellectual capital sub-criterion; **Implied Information, Systems, Procedures and Protocols and Patents and Copyrights** have the same significant impact.

Table 61 *Pairwise comparisons of natural capital*

	Patents and Copyright Indicator	**Implied Knowledge, Systems and Protocols**	**Weights**
Patents and Copyright Indicator	1	1	0,5
Implied Knowledge, Systems and Protocols	1	1	0,5

Table 62 *Performance Evaluation in Natural and Intellectual Capital Suc-Criteria*

	Natural Capital			Intellectual Capital		
	2018	2019	2020	2018	2019	2020
İstanbul	0,261	0,228	0,433	0,778	0,722	0,926
Ankara	0,011	0,279	0,346	0,333	0,389	0,574
İzmir	0,109	0,422	0,433	0,389	0,389	0,593
Bursa	0,176	0,216	0,433	0,389	0,444	0,926
Antalya	0,250	0,194	0,183	0,389	0,389	0,426
Adana	0,096	0,194	0,366	0,000	0,444	0,519
Konya	0,107	0,205	0,250	0,056	0,444	0,500
Şanlıurfa	0,096	0,098	0,087	0,111	0,111	0,019
Gaziantep	0,175	0,260	0,366	0,444	0,389	0,852
Kocaeli	0,216	0,205	0,250	0,389	0,444	0,500
Mersin	0,119	0,022	0,154	0,111	0,389	0,426
Diyarbakır	0,022	0,107	0,087	0,000	0,333	0,352
Hatay	0,107	0,119	0,366	0,000	0,389	0,519
Manisa	0,098	0,022	0,250	0,000	0,000	0,500
Kayseri	0,205	0,120	0,183	0,444	0,389	0,759
Samsun	0,183	0,119	0,183	0,056	0,333	0,426
Balıkesir	0,226	0,045	0,250	0,389	0,556	0,500
Kahramanmaraş	0,107	0,022	0,000	0,056	0,000	0,000
Van	0,109	0,022	0,183	0,000	0,000	0,426
Aydın	0,107	0,107	0,087	0,000	0,000	0,352
Tekirdağ	0,022	0,033	0,000	0,000	0,000	0,000

Denizli	0,172	0,119	0,154	0,000	0,389	0,426
Sakarya	0,109	0,303	0,337	0,389	0,778	0,852
Muğla	0,120	0,205	0,337	0,056	0,444	0,852
Eskişehir	0,109	0,216	0,087	0,389	0,778	0,685
Trabzon	0,183	0,098	0,087	0,056	0,333	0,352
Malatya	0,411	0,173	0,173	0,056	0,333	0,370
Erzurum	0,087	0,281	0,183	0,000	0,389	0,426
Ordu	0,109	0,377	0,366	0,056	0,389	0,519

When the performances between 2018-2020 over the average score of the natural capital sub-dimension are examined; In Ankara, İzmir, Bursa, Adana, Konya, Gaziantep, Hatay, Sakarya, Muğla, the performances increased over the years, in Antalya, Kahramanmaraş, Aydın, Trabzon and Malatya.

When the performances between 2018-2020 over the average score of the intellectual capital sub-dimension are examined; Ankara, Izmir, Bursa, Antalya, Adana, Konya, Kocaeli, Mersin, Diyarbakir, Hatay, Manisa, Samsun, Van, Aydın, Denizli, Sakarya, Muğla, Trabzon, Malatya, Erzurum and Ordu where the performances increased over the years, Şanlıurfa, and Kahramanmaraş, on the other hand, it was observed that the performance decreased over time.

Findings Regarding Financial Capital Main Criteria

Table 63 *AHP Summary Results*

Expert	Operational Success	Debt Structure	Expenditures	Revenues	Average Lambda max	CI	CR
1*	0,500	0,167	0,167	0,167	3,999	0,000	0,000
2*	0,238	0,590	0,070	0,107	4,231	0,077	0,086
3*	0,177	0,246	0,282	0,296	4,185	0,062	0,069
4	0,177	0,246	0,282	0,296	4,185	0,062	0,122
5	0,058	0,165	0,401	0,376	4,331	0,110	0,123
6*	0,157	0,097	0,201	0,124	4,191	0,900	0,100
7*	0,329	0,133	0,481	0,058	4,191	0,064	0,071
8	0,580	0,129	0,053	0,238	4,740	0,247	0,274
9*	0,392	0,317	0,108	0,183	4,088	0,029	0,032
10	0,562	0,137	0,041	0,260	5,586	0,529	0,588
11	0,556	0,163	0,142	0,139	7,141	1,047	1,163
12*	0,240	0,254	0,212	0,295	4,186	0,062	0,069

In the financial capital dimension, 5 sub-criteria (manufactured capital was not taken into consideration because it consists of only one indicator) and 24 indicators were evaluated. For the group decision calculations, experts marked with an asterisk were included in the calculation, and experts with CR>0.1 were excluded from the analysis.

Considering the importance degrees of the sub-dimensions; were obtained in the sub-dimensions of **Operational Success** has a significant impact on financial performance followed by;

1. Income Indicator,
2. Debt Structure Indicator and Expenditures Indicator (have equal impacts), respectively.

Table 64 *Pairwise comparisons of financial performance*

	Operational Success	Debt Structure	Expenditures	Revenues	Weights
Operational Success	1	1	2	2	0,3458
Debt Structure	1	1	1	1	0,2458

Expenditures	0,5	1	1	1	0,2042
Revenues	0,5	1	1	1	0,2042

Table 65 *Descriptive Statistics on Financial Indicators*

	2018		**2019**		**2020**	
	Min	Max	Min	Max	Min	Max
1. Budget Balance Indicator	-,74	,15	-,35	2,19	-,34	,32
2. Activity Balance Indicator	-,61	,47	-,20	,96	-,39	,54
3. Liability Indicator	,24	2,86	,10	2,92	,15	3,02
4.Liability Distribution Indicator	,05	,98	,00	1,00	,08	,82
5. Overdue Liabilities	,00	,29	,00	,30	,00	1,20
6. Overdue Receivables	,00	,78	,00	1,57	-,31	1,74
7.Accrual Based Personnel Expenditure Indicator	,07	,27	,06	,86	,05	,25
8.Cash Based Personnel Expenditures Indicator	,05	,25	,06	,30	,06	,20
9. Indicator Of The Share Of Personnel Expenditures In Expenses	,05	1,02	,05	1,07	,06	1,55

10.Accrual Based Interest Expense Indicator	,00	,51	,00	,47	,00	,39
11. Cash Based Interest Expense Indicator	,00	,18	,00	,25	,00	,17
12. Debt Indicator	,01	1,45	,00	4,80	,03	2,45
13. Indicator Of Revenues To Cover Liabilities And Expenses	,23	1,06	,28	1,29	-1,62	1,47
14. Dependency Indicator	,54	,95	,01	,94	,60	,97
15. Tax Income Indicator	,00	,03	,00	,03	,00	,04
16.Non-Financial Asset Indicator	-,85	3,18	-1,74	2,41	-3,73	13,36
17.Collection-Accrual Indicator	,00	1,66	,78	1,26	,35	1,80
18. Tax And Similar Income Collection-Accrual Indicator	,00	1,38	,48	9,10	,00	1,12
19. Payment-Accrual Indicator	,00	1,30	-,06	1,92	,56	2,33
20. Income Forecast Indicator	,57	1,50	,60	1,24	,68	1,26
21. Expense Forecast Indicator	,70	1,57	,56	1,16	,59	1,00

22. Income Per Capita Indicator	441,21	1366,29	465,81	1344,38	530,62	1563,80
23. Indicator Of Expenses Per Capita	505,88	1497,40	404,24	1590,96	447,86	1712,20
24. Ratio Of Tangible Assets To Total Assets	,61	,97	,62	,97	,55	,95

Since the change intervals of the 24 indicators determined to evaluate the financial capital are ratios, the indicators are standardized in the range of 0-1 in order to eliminate the reflection of this effect on the performance.

Table 66 *Performance Evaluation in General Financial Capital Measure*

	2018	**2019**	**2020**
İstanbul	0,499	0,431	0,488
Ankara	0,517	0,283	0,576
İzmir	0,527	0,497	0,492
Bursa	0,493	0,323	0,446
Antalya	0,520	0,310	0,351
Adana	0,385	0,492	0,494
Konya	0,498	0,297	0,538
Şanlıurfa	0,430	0,343	0,461
Gaziantep	0,532	0,561	0,547
Kocaeli	0,702	0,426	0,762
Mersin	0,490	0,368	0,544
Diyarbakır	0,392	0,262	0,423
Hatay	0,507	0,292	0,403
Manisa	0,455	0,387	0,599
Kayseri	0,488	0,327	0,474
Samsun	0,498	0,399	0,531
Balıkesir	0,713	0,387	0,532
Kahramanmaraş	0,451	0,415	0,541
Van	0,495	0,353	0,514
Aydın	0,356	0,249	0,490
Tekirdağ	0,515	0,334	0,467
Denizli	0,384	0,455	0,649

Sakarya	0,499	0,313	0,387
Muğla	0,526	0,333	0,551
Eskişehir	0,463	0,375	0,497
Trabzon	0,508	0,283	0,315
Malatya	0,640	0,434	0,608
Erzurum	0,640	0,449	0,516
Ordu	0,442	0,345	0,351

When the performances between 2018-2020 over the total score of the financial capital dimension are examined; It has been observed that the performances in Adana and Denizli have increased over the years.

Table 67 *Findings Regarding Operational Success*

Expert	Budget Balance	Activity Balance	Collection-Accrual	Tax and Similar Income Collection-Accrual	Payment-Accrual Indicator	Average Lamda max	Consistency Index (CI)	Consistency Rate (CR)
1*	0,333	0,333	0,111	0,111	0,111	4,999	0,000	0,000
2	0,111	0,534	0,178	0,039	0,139	6,182	0,295	0,264
3	0,260	0,470	0,142	0,079	0,048	5,844	0,211	0,188
4*	0,195	0,110	0,220	0,256	0,220	5,059	0,015	0,013
5	0,099	0,099	0,099	0,235	0,468	8,365	0,841	0,751
6	0,262	0,278	0,158	0,161	0,141	7,623	0,656	0,586
7*	0,439	0,359	0,067	0,067	0,067	5,014	0,004	0,003
8	0,468	0,221	0,162	0,055	0,093	5,488	0,122	0,109
9*	0,221	0,255	0,246	0,108	0,170	5,178	0,044	0,040

10	0,106	0,224	0,478	0,093	0,099	10,426	1,357	1,211
11	0,317	0,297	0,058	0,306	0,021	7,734	0,684	0,610
12	0,448	0,229	0,148	0,102	0,073	5,570	0,143	0,127

For the group decision calculations, experts marked with an asterisk were included in the calculation, and experts with CR>0.1 were excluded from the analysis.

Budget Balance Indicator has a significant impact on the operational success sub-criterion followed by;

1. Activity Balance,
2. Collection Accrual Indicator, Tax and Similar Income Collection-Accrual Indicator,
3. Payment-Accrual Indicator.

Table 68 *Pairwise comparisons of operational success*

	Budget Balance	**Activity Balance**	**Collection-Accrual**	**Tax and Similar Income Collection-Accrual**	**Payment-Accrual Indicator**	**Weights**
Budget Balance	1	1	2	2	3	0,3064
Activity Balance	1	1	2	2	2	0,2814
Collection-Accrual	0,5	0,5	1	1	1	0,1407
Tax and Similar Income Collection-Accrual	0,5	0,5	1	1	1	0,1407
Payment-Accrual Indicator	0,333	0,5	1	1	1	0,1307

Table 69 *Performance Evaluation in terms of Operational Success*

	2018	**2019**	**2020**
İstanbul	0,228	0,094	0,187
Ankara	0,274	0,122	0,328
İzmir	0,238	0,081	0,107
Bursa	0,262	0,090	0,184
Antalya	0,183	0,078	0,136
Adana	0,160	0,290	0,233
Konya	0,252	0,129	0,267
Şanlıurfa	0,278	0,112	0,251
Gaziantep	0,275	0,280	0,220
Kocaeli	0,317	0,151	0,358
Mersin	0,171	0,106	0,247
Diyarbakır	0,245	0,110	0,273
Hatay	0,263	0,074	0,136
Manisa	0,166	0,110	0,250
Kayseri	0,252	0,114	0,231
Samsun	0,250	0,134	0,209
Balıkesir	0,262	0,110	0,235
Kahramanmaraş	0,145	0,109	0,267
Van	0,269	0,133	0,260
Aydın	0,194	0,093	0,253
Tekirdağ	0,250	0,089	0,200
Denizli	0,080	0,125	0,274

Sakarya	0,319	0,164	0,211
Muğla	0,288	0,105	0,287
Eskişehir	0,205	0,112	0,203
Trabzon	0,302	0,083	0,109
Malatya	0,349	0,095	0,235
Erzurum	0,229	0,052	0,169
Ordu	0,214	0,121	0,083

When the performances between 2018-2020 over the total score of the operational success dimension are examined; It has been observed that the performances in Denizli have increased over the years.

Table 70 *Findings Regarding Debt Structure*

Expert	Liability Indictor	Liability Distribution	Overdue Liabilities	Overdue Receivables	Debt Indicator	Indictor of Revenues to Cover Liabilities and Expenses	Average Lamda Max	CI	CR
1	0,069	0,080	0,167	0,070	0,106	0,509	6,678	0,136	0,109
2	0,099	0,347	0,044	0,135	0,129	0,245	7,529	0,306	0,247
3*	0,141	0,160	0,160	0,141	0,116	0,282	6,081	0,016	0,013
4	0,400	0,210	0,120	0,052	0,091	0,127	6,718	0,144	0,116
5	0,149	0,060	0,259	0,023	0,351	0,158	8,903	0,581	0,751
6*	0,086	0,148	0,192	0,204	0,040	0,330	6,485	0,097	0,078
7*	0,128	0,051	0,189	0,189	0,189	0,255	6,470	0,094	0,076
8*	0,037	0,052	0,235	0,101	0,129	0,446	7,569	0,314	0,210
9*	0,101	0,088	0,142	0,071	0,110	0,488	6,135	0,027	0,022
10	0,367	0,083	0,112	0,254	0,117	0,066	10,417	0,883	0,712

11	0,106	0,063	0,097	0,193	0,388	0,153	12,130	1,226	0,989
12*	0,051	0,086	0,207	0,207	0,224	0,224	6,119	0,024	0,019

For the group decision calculations, experts marked with an asterisk were included in the calculation, and experts with CR>0.1 were excluded from the analysis.

In the debt structure sub-criterion, the **Overdue Liabilities and Indicator of Revenues to Cover Liabilities and Expenditures** have a significant and equal impacts, followed by;

1. Overdue Receivables Indicator,
2. Liability Indicator, Debt Indicator,
3. Liability Distribution.

Table 71 *Pairwise comparisons of debt structure*

	Liability Indictor	**Liability Distribution**	**Overdue Liabilities**	**Overdue Receivables**	**Debt Indicator**	**Indictor of Revenues to Cover Liabilities and Expenses**	**Weights**
Liability Indictor	1	1	1	1	1	0,5	0,1462
Liability Distribution	1	1	0,5	1	1	0,5	0,1296
Overdue Liabilities	1	2	1	1	2	1	0,2075
Overdue Receivables	1	1	1	1	1	1	0,1629
Debt Indicator	1	1	0,5	1	1	1	0,1462
Indictor of Revenues to Cover Liabilities and Expenses	2	2	1	1	1	1	0,2075

Table 72 *Performance Evaluation in Debt Structure Criterion*

	2018	**2019**	**2020**
İstanbul	0,029	0,048	0,060
Ankara	0,028	0,034	0,036
İzmir	0,044	0,045	0,097
Bursa	0,086	0,108	0,126
Antalya	0,147	0,143	0,131
Adana	0,137	0,109	0,167
Konya	0,098	0,061	0,105
Şanlıurfa	0,040	0,048	0,066
Gaziantep	0,106	0,146	0,124
Kocaeli	0,103	0,068	0,098
Mersin	0,141	0,121	0,144
Diyarbakır	0,047	0,035	0,058
Hatay	0,095	0,089	0,136
Manisa	0,116	0,128	0,125
Kayseri	0,083	0,073	0,076
Samsun	0,120	0,089	0,135
Balıkesir	0,153	0,118	0,159
Kahramanmaraş	0,146	0,108	0,113
Van	0,089	0,088	0,103
Aydın	0,088	0,080	0,093
Tekirdağ	0,090	0,087	0,117
Denizli	0,170	0,149	0,142

Sakarya	0,062	0,068	0,104
Muğla	0,066	0,046	0,061
Eskişehir	0,109	0,105	0,150
Trabzon	0,035	0,039	0,096
Malatya	0,089	0,165	0,122
Erzurum	0,170	0,100	0,113
Ordu	0,105	0,080	0,125

When the performances between 2018-2020 over the total score of the debt structure dimension are examined; It has been observed that the performances have increased over the years in Istanbul, Ankara, Izmir, Bursa, Şanlıurfa, Hatay, Sakarya and Trabzon.

Table 73 *Findings Regarding Expenditures*

Expert	Accrual Based Personnel Expenditure Indicator	Cash Based Personnel Expenditure	Indicator of the Share of Personnel Expenditures in Expenses	Accrual Based Interest Expense	Cash Based Interest Expense	Expense Forecast Indicator	Expense per Capita	Average Lamda max	CI	CR
1*	0,049	0,107	0,139	0,135	0,174	0,164	0,233	7,478	0,080	0,060
2	0,064	0,215	0,057	0,080	0,140	0,417	0,027	9,111	0,352	0,267
3*	0,406	0,040	0,180	0,066	0,131	0,101	0,075	7,773	0,129	0,098
4*	0,125	0,088	0,139	0,213	0,213	0,107	0,115	7,371	0,062	0,047
5	0,176	0,117	0,162	0,084	0,113	0,327	0,022	14,452	1,242	0,941
6	0,066	0,348	0,071	0,150	0,152	0,187	0,025	8,519	0,253	0,192
7	0,125	0,070	0,080	0,080	0,125	0,439	0,080	7,896	0,149	0,113
8	0,076	0,138	0,326	0,059	0,082	0,136	0,183	12,917	0,986	0,747
9*	0,107	0,068	0,099	0,195	0,138	0,294	0,099	7,405	0,067	0,051
10	0,277	0,016	0,137	0,038	0,193	0,081	0,258	12,618	0,936	0,709
11	0,091	0,075	0,164	0,041	0,023	0,234	0,373	9,768	0,461	0,349
12	0,138	0,138	0,194	0,116	0,101	0,152	0,161	8,068	0,178	0,135

For the group decision calculations, experts marked with an asterisk were included in the calculation, and experts with CR>0.1 were excluded from the analysis.

Accrual Based Interest Expenditures in Expenses Indicator has a significant impact on the expenditures sub-criterion, followed by;,

1. Indicator of the Share of Personnel Expenditures in Expenses
2. Expense Forecast Indicator, Expense per Capita, Cas Based Interest Expense
3. Cash Based Personnel Expenditure
4. Accrual Based Personnel Expenditure

Table 74 *Pairwise comparisons of expenditures*

	Accrual Based Personnel Expenditure Indicator	Cash Based Personnel Expenditure	Indicator of the Share of Personnel Expenditures in Expenses	Accrual Based Interest Expense	Cash Based Interest Expense	Expense Forecast Indicator	Expense per Capita	Weights
Accrual Based Personnel Expenditure Indicator	1	1	0,5	0,5	1	1	1	0,1171
Cash Based Personnel Expenditure	1	1	0,5	1	1	1	1	0,1290
Indicator of the Share of Personnel Expenditures in Expenses	2	2	1	0,5	1	1	1	0,1610
Accrual Based Interest Expense	2	1	2	1	1	1	1	0,1755
Cash Based Interest Expense	1	1	1	1	1	1	1	0,1392
Expense Forecast Indicator	1	1	1	1	1	1	1	0,1392
Expense per Capita	1	1	1	1	1	1	1	0,1392

Table 75 *Findings Regarding Income*

Expert	Dependency Indicator	Tax Income Indicator	Non-Financial Asset Indicator	Income Forecast Indicator	Income per Capita Indicator	Average Lamda max	CI	CR
1*	0,217	0,285	0,087	0,143	0,268	5,411	0,103	0,092
2	0,092	0,242	0,124	0,505	0,037	5,879	0,220	0,196
3	0,379	0,191	0,068	0,104	0,257	5,667	0,167	0,149
4*	0,239	0,350	0,108	0,194	0,108	5,102	0,025	0,023
5	0,139	0,262	0,039	0,473	0,087	6,391	0,348	0,311
6	0,041	0,427	0,138	0,337	0,057	5,458	0,114	0,102
7	0,326	0,081	0,081	0,326	0,185	5,672	0,168	0,150
8	0,098	0,415	0,038	0,283	0,167	6,521	0,380	0,339
9*	0,250	0,125	0,125	0,250	0,250	5,000	0,000	0,000
10*	0,487	0,323	0,089	0,048	0,054	5,283	0,071	0,063
11	0,086	0,271	0,053	0,093	0,497	6,751	0,438	0,391
12	0,575	0,098	0,045	0,166	0,117	5,735	0,184	0,164

For the group decision calculations, experts marked with an asterisk were included in the calculation, and experts with CR>0.1 were excluded from the analysis.

In the income sub-criterion, **Dependency Indicator** has a significant impact on financial performance of the local authorities, followed by;

1. Tax Income Indicator,
2. Income per Capita Indicator,
3. Income Forecast Indicator,
4. Non-Financial Asset Indicator.

Table 76 *Pairwise comparisons of income*

	Dependency Indicator	**Tax Income Indicator**	**Non-Financial Asset Indicator**	**Income Forecast Indicator**	**Income per Capita Indicator**	**Weights**
Dependency Indicator	1	2	3	2	2	0,3494
Tax Income Indicator	0,5	1	2	2	1	0,2158
Non-Financial Asset Indicator	0,33	0,5	1	1	1	0,1304
Income Forecast Indicator	0,5	0,5	1	1	1	0,1422
Income per Capita Indicator	0,5	1	1	1	1	0,1622

Table 77 *Performance Evaluation in Expenditures and Income Measures*

	Expenditure			**Revenues**		
	2018	**2019**	**2020**	**2018**	**2019**	**2020**
İstanbul	0,007	0,020	0,025	0,236	0,269	0,217
Ankara	0,017	0,017	0,017	0,197	0,109	0,195
İzmir	0,024	0,018	0,025	0,221	0,353	0,264
Bursa	0,019	0,007	0,022	0,126	0,117	0,114
Antalya	0,020	0,017	0,026	0,169	0,071	0,059
Adana	0,021	0,020	0,023	0,067	0,073	0,070
Konya	0,020	0,016	0,019	0,128	0,091	0,148
Şanlıurfa	0,022	0,020	0,019	0,091	0,161	0,125
Gaziantep	0,016	0,017	0,011	0,136	0,118	0,191
Kocaeli	0,017	0,018	0,019	0,264	0,190	0,289
Mersin	0,021	0,017	0,025	0,156	0,124	0,128
Diyarbakır	0,025	0,021	0,025	0,075	0,096	0,067
Hatay	0,024	0,018	0,023	0,124	0,110	0,108
Manisa	0,023	0,015	0,022	0,149	0,135	0,202
Kayseri	0,016	0,017	0,017	0,137	0,123	0,151
Samsun	0,022	0,017	0,022	0,107	0,159	0,165
Balıkesir	0,013	0,017	0,019	0,285	0,141	0,119
Kahramanmaraş	0,021	0,017	0,021	0,139	0,182	0,140
Van	0,025	0,018	0,023	0,112	0,114	0,128
Aydın	0,022	0,018	0,021	0,052	0,058	0,124
Tekirdağ	0,025	0,019	0,025	0,150	0,139	0,125

Denizli	0,022	0,016	0,020	0,112	0,166	0,213
Sakarya	0,017	0,016	0,020	0,101	0,064	0,053
Muğla	0,026	0,020	0,025	0,146	0,161	0,178
Eskişehir	0,021	0,023	0,022	0,128	0,135	0,122
Trabzon	0,023	0,017	0,021	0,148	0,143	0,089
Malatya	0,013	0,019	0,021	0,188	0,155	0,230
Erzurum	0,014	0,015	0,020	0,226	0,282	0,214
Ordu	0,019	0,017	0,021	0,104	0,127	0,122

When the performances between 2018-2020 over the total score of the expenditures dimension are examined; It has been observed that the performances have increased over the years in Istanbul, Kocaeli, Kayseri, Balikesir, Malatya and Erzurum.

When the performances between 2018-2020 over the total score of the income dimension are examined; It has been observed that the performances have increased over the years in Samsun, Van, Aydın, Denizli and Muğla.

Table 78 *Performance Evaluation on the Scale of Manufactured Capital*

	2018	**2019**	**2020**
İstanbul	0,807	0,810	0,779
Ankara	0,719	0,712	0,679
İzmir	0,779	0,792	0,821
Bursa	0,882	0,884	0,863
Antalya	0,838	0,844	0,802

Adana	0,766	0,772	0,766
Konya	0,869	0,835	0,750
Şanlıurfa	0,882	0,867	0,737
Gaziantep	0,771	0,785	0,904
Kocaeli	0,913	0,922	0,901
Mersin	0,776	0,727	0,616
Diyarbakır	0,664	0,844	0,718
Hatay	0,675	0,743	0,773
Manisa	0,900	0,865	0,841
Kayseri	0,844	0,852	0,745
Samsun	0,881	0,859	0,774
Balıkesir	0,848	0,823	0,904
Kahramanmaraş	0,897	0,885	0,858
Van	0,733	0,713	0,660
Aydın	0,815	0,734	0,809
Tekirdağ	0,800	0,794	0,775
Denizli	0,884	0,818	0,836
Sakarya	0,733	0,752	0,656
Muğla	0,742	0,616	0,550
Eskişehir	0,887	0,862	0,813
Trabzon	0,922	0,912	0,893
Malatya	0,612	0,844	0,827
Erzurum	0,879	0,911	0,816
Ordu	0,971	0,969	0,949

When the performances between 2018-2020 are analyzed over the score of the produced capital dimension; It has been observed that the performances have increased over the years in İzmir, Gaziantep and Hatay, while the performance has decreased over time in Ankara, Konya, Şanlıurfa, Mersin, Manisa, Samsun, Kahramanmaraş, Van, Tekirdağ, Muğla, Eskişehir, Trabzon and Ordu.

6. CONCLUSION

Municipalities are institutions set up to address regional requirements. In general, they are the world's most accessible administrative units to the general population. These systems play a significant role in human life because the services they provide have a direct impact on human life. There are currently a lot of parties interested in the services provided by the towns. The effectiveness and efficiency of all financial and non-financial transactions directly affect the sustainability of services. Transparency and accountability with regard to the services provided are crucial. The statute contains provisions relating financial occurrences. However, in order to keep up with global trends, it is now necessary to reinterpret the requirements using a modern perspective.

The constitution of more sensitive public institutions to the needs of the citizens, made them more transparent and flexible. Increasing interest in the performance of public sector organizations and their impact on the external environment forced them to produce social reports. There has been much discussion on whether the current format for reporting in the public sector ultimately meets the needs of the various user groups which differ greatly in terms of the knowledge, skill, maturity, and information needed.

Over the past few years, considerable measures have been taken to improve public sector reporting such that the majority of users may now find it more helpful and understandable. Two distinct methods of providing information to users within this discussion have drawn increasing interest on a global scale. The first is popular

reporting, which strives to conveniently and amiably inform residents about the state or local government's financial situation. Popular reports should give information on public sector accounting in a clear, succinct, and straightforward manner (Governmental Accounting Standards Board, 1987). Integrated reporting, commonly referred to as "one report," is discussed in the second part. (Eccles & Krzus, 2010).

The aim of this study is to develop an integrated reporting model at the national level for local governments and to make integrated performance measurements. Within the scope of the study, firstly, the concept of financial reporting and social reporting was emphasized, and in the second part, financial and social performance measurement methods were explained. In the third chapter, the development and current status of integrated reporting in the public sector was mentioned, and the motivations for the implementation of the integrated report for local governments are explained. In the fourth part, firstly, the results of a survey study which was conducted for 27 metropolitan and 92 metropolitan district municipalities explained to interpret the social components of integrated reporting from the perspectives local government employees. Within the scope of the second part of study research, a content analysis study, covering 29 metropolitan municipalities was conducted.

The index model created within the scope of the criteria prepared was used to calculate the social and financial performance scores of 29 metropolitan municipalities in Turkey. It was submitted to the opinion of 12 experts. The opinions received from the experts were analyzed with AHP, one of the multi-criteria decision-making methods. According to the results of the analysis, financial and social

integrated performance models for municipalities constituted. The results are shared in the figures below.

The financial performance rating consists of the sum of the financial capital and manufactured capital grades obtained from the financial statements. Social performance, on the other hand, consists of the grade totals of human capital, natural capital, social and relational capital and intellectual capital obtained from social data.

In order to calculate the performance scores, the financial reports and annual reports of 29 metropolitan municipalities between the years 2018-2020 were examined. The data related to social reporting used in the research were surrounded by parametric data with grades between 0-2 points and normalized to be used in the analyses. Data on financial reporting has also been subjected to normalization.

Figure 19 *Social Performance Model*

Under the social performance model, 4 capital of integrated reporting evaluated. According the results of main criteria analysis, for a municipality social and relationship capital has a significant impact on social performance and followed by intellectual capital, human capital and natural capital. When the results of expert opinions compared with the results of the survey applied to municipality personnel, similarities are found. According to the results of the survey applied to the municipality personnel, the capital criteria ranking is; social and relationship capital, human capital, intellectual capital and natural capital. Both results show that for the Municipalities the most important capital is social and relationship capital and the least important one is natural capital. But the results of the content analysis prepared by the annual reports of the Municipalities between 2018-2020, reveals a different evaluation from the above results. The total capital index scores of Municipalities are given in the tables below:

Table 79 *Social Capital*

SOCIAL CAPITAL			
	2018	**2019**	**2020**
Social Projects and Investments	186	204	233
Anti-Corruption and Bribery	13	18	26
Corporate Social Responsibility Awards	1	2	5
Citizen Satisfaction	9	10	16
Consumer Complaint Mechanism	29	26	30
Supplier Selection	1	3	3
Compliance with Corporate Governance	15	20	30
Peace, Justice and Strong Institutions	52	62	62

TOTAL	306	345	405

Table 80 *Natural Capital*

NATURAL CAPITAL			
	2018	**2019**	**2020**
Environmentally Friendly Initiatives	18	22	38
Renewable Energy	19	23	27
Environment Awards	5	2	12
Sustainable cities and communities	117	149	181
TOTAL	159	196	258

Table 81 *Human Capital*

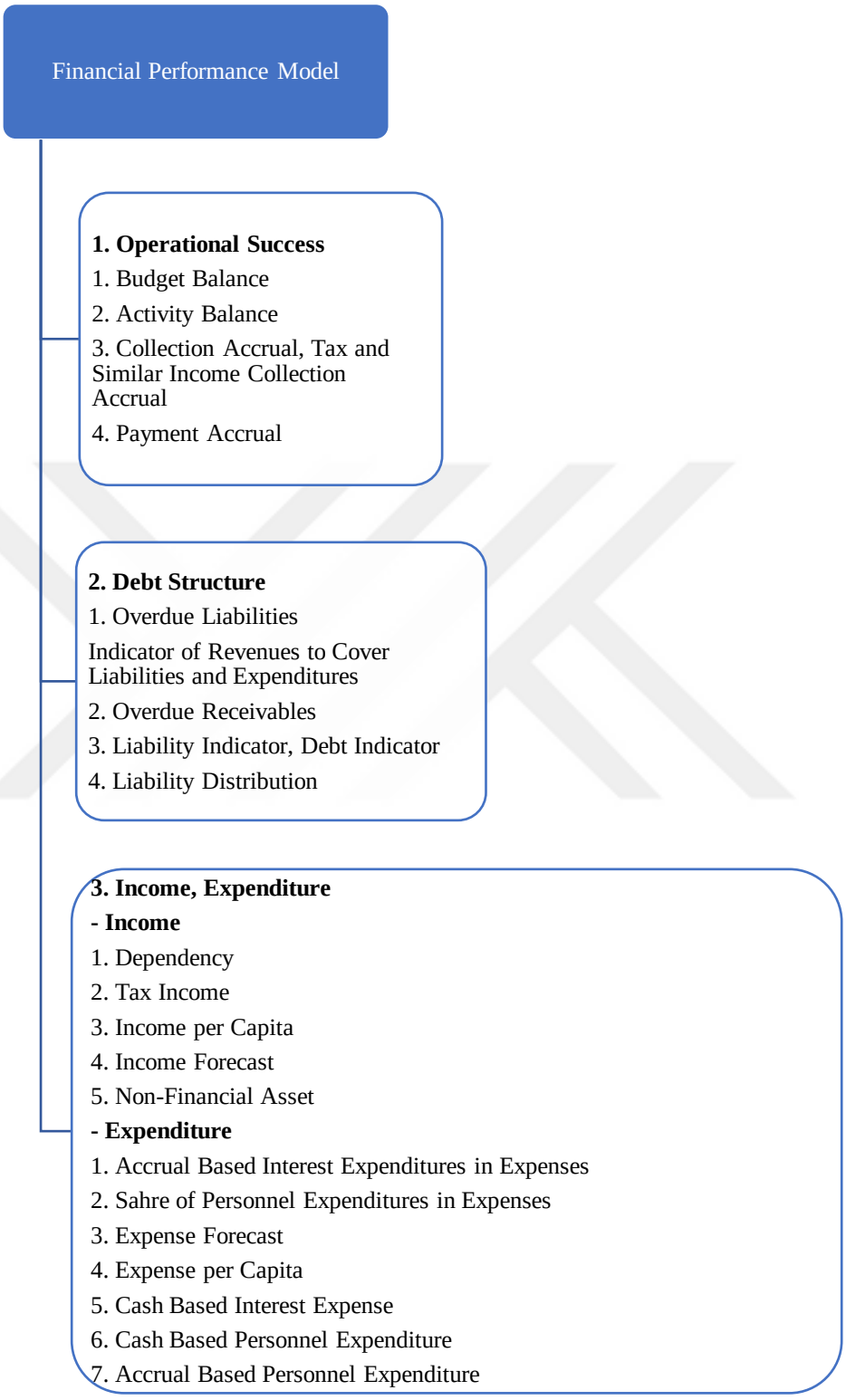
HUMAN CAPITAL			
	2018	**2019**	**2020**
Wages	0	25	38
Occupational Health and Safety	31	29	25
Rights of Women Employees	1	7	15
The Right to Make Decisions and Participation	1	2	7
Performance Evaluation System	5	6	11
Vocational Training	29	26	27
Youth Training Support	0	1	2
TOTAL	67	96	125

Table 82 *Intellectual Capital*

INTELLECTUAL CAPITAL			
	2018	**2019**	**2020**
Total Number of Patents	5	10	13
Implied Knowledge, Systems and Protocols	12	26	33
TOTAL	17	36	46

According to the results of the capital index calculations, the ranking of annual reports of the Municipalities is; social and relationship capital, natural capital, human capital, and intellectual capital. The results of the index model reveals that the annual reports include mostly social and relationship capital, which is parallel to the results of the expert views and survey of the municipality personnel. But as the second capital, natural capital, is explained at a high rate in the annual reports of municipalities and has a different order from the results obtained within the scope of this study. This means that three different point of different groups have different integrated models for Municipalities; one is the municipality as the service giver, the other one is the personnel and the last one is the experts in the area. For the integrated modal proposal we accept the result of Expert's because, the expert view is an impartial and objective point of view. Also, it is highlighted by the International Integrated Reporting Council that it is suggested for each capital indicator to have close numbers (IIRC, 2015). This suggestion is this recommendation is in line with the results obtained from expert opinions.

Figure 20 *Financial Performance Model*



As a result of the research on local governments providing public services in our country, a model of social capital and financial capital, which are the two main criteria of integrated performance, was developed and performance measurements of local governments were made using this developed model. During the preparation of the mentioned analyzes, the annual reports and financial reports published by local governments in our country were interpreted according to the integrated report model, and the content of the integrated reporting index for local governments, which is the main purpose of the study, was prioritized in line with expert opinion. The aim of the integrated reporting index proposed in the study is to raise awareness on the subject and to ensure that the corporate reports used in local governments are more accountable, more transparent and more understandable in line with new trends and changes in the world. This study is expected to be a pioneer for studies on the same subject.

The suggestion presented to the new studies to be done would be to provide more expert opinion and to include local government top managers in the study, especially in expert opinion.

According to the results of the survey conducted on 119 municipal personnel, 63% of the participants stated that their institutions' annual reports are compatible with the integrated report. Again, 71% of the same participants stated that the integrated reporting model is applicable in municipalities. Although these answers given by the municipality employees do not prove the main questions of the study, they support it. In fact, there is no criterion with a zero score in the scoring of social capital indicators created from studies in the literature. This means that the social capital and financial capital criteria of the integrated report are presented in the annual and financial reports published by the municipalities. Again, although the rates

determined as financial performance criteria are not directly explained in the municipal financial reports, they can be obtained from the data published from these sources. The answers of two questions of the research; "Is integrated reporting an applicable corporate reporting model in local governments?" and “How close are the current financial and social reports of local governments to the integrated report model?” could be seen in the index model created. In the study it was seen that local governments present the information needed by the integrated report in their corporate reports. So, it could be applicable by the municipalities. However, the only problem here is the presentation style, content and the meaningfulness of much of the information given. In addition, since the annual reports published by the municipalities contain information based on the previous year, there are more than one report and these reports do not allow for a common interpretation, and are not a product of the integrated thinking and values of the institution, although it contains the information needed by the integrated report in terms of content. Also, these reports are not structurally understandable. Especially, annual reports prepared in long pages and do not easy to read and understand and do not have the integrity of social and financial information. They cannot clearly express the basic values of municipalities and the social and financial results produced within the scope of them. As a result, the answer of this question could be; the annual and financial reports published by the municipalities include the integrated report’s capital criteria, but the report is not compatible with the integrated reporting framework and they are not close to the current corporate reports of the municipalities.

ANNEXES

Annex-1

Criteria	Scoring			Descriptions	References
Human Capital					
Wages				This criterion is discussed under two headings as overtime wages and additional payments.	
-Overtime Wages	0: There is no explanation.	1: In the industry average	2: Above the industry average	Under this criterion, the place of overtime wages in the sector average was investigated	- (ILO, 2022)
-Additional Payments	0:Not available	1: Available		Under these criteria, explanations related to premiums, dividends, social assistance and similar payments, which are considered as motivation-enhancing other than overtime wages, were evaluated.	- (GRI, 2021)
Occupational Health and Safety				The measures taken by the company to protect the health and safety of its employees are evaluated under this criterion. The examination was carried out under 2 criteria, namely physical working conditions and education	- (GRI, 2021) - (United Nations, 2021)
-Physical Working Conditions	0: There is no explanation.	1:These is a positive statement, but there is	2: There is a certificate	The measures taken by the company regarding occupational health and safety and whether the company has the OHSAS certificate; which	- (OECD, 2003) - (GRI, 2021)

		no certificate.		certifies the compliance of the company with certain standards for the health and safety of the employees, has been evaluated in this criterion.	- (United Nations, 2021)
-Occupational Health and Safety Education	0: There is no explanation	1: There is an education			
Rights of Women Employees				Policies implemented by the company for the inclusion of women in working life were evaluated under this criterion. It has been examined in 2 sub-criteria as positive discrimination and female workforce in management.	
-Positive Discrimination	0: There is no explanation.	1: There is positive discriminatio n		Under this criterion, in addition to legal sanctions, statements regarding whether positive discrimination is made against female employees are evaluated.	- (GRI, 2021)
-Female Workforce in Management	0: Not available	1: %20	2: More than %20	Members of the board of directors and female employees in the senior management were evaluated under this criterion.	- (GRI, 2021)
The Right to Make Decisions and Participate in Management	0: No Explanation/Ri ghts	1: The right has been granted.		Explanations about whether the employees of the companies participate in the decision-making phase are evaluated under this criterion.	- (GRI, 2021) - (OECD, 2003)

Workforce Satisfaction Survey	0: No explanation/survey is not held.	1: A survey is held		Explanations about whether the companies hold surveys in which employees evaluate the company and working conditions are evaluated under this criterion.	- (GRI, 2021)
Performance Evaluation System	0: No description / no system available	1: Superiors evaluate subordinates	2: Subordinates also have the opportunity to evaluate superiors.	Explanations on whether there is a process for evaluating the performance of the employees and whether an over-the-top evaluation is allowed are evaluated under this criterion.	(GRI, 2021)
Disabled Employees	0: Within legal limits	1: In addition to the limit specified by the law, disabled employees are employed.	2: Positive discrimination is practiced for disabled employees.	Statements regarding positive discrimination applied beyond the laws regarding disabled employees were evaluated under this criterion.	- (GRI, 2021)
Vocational Education	0: No explanation/no training opportunity.	1: Training opportunity is available.		All kinds of practice and training opportunities for the Professional development of the employees are evaluated under this criterion.	- (OECD, 2003) - (GRI, 2021)
Youth Training Support	0: No explanation/no training opportunity.	1: Training opportunity is available.		Programs to creating opportunities for the youth who are not in education, employment and training in order to prevent future erosion of skills and job discouragement.	- (United Nations, 2021)
Social and Relational Capital					

Social Projects and Investments				Statements of companies regarding their social projects are evaluated under this criterion	- (United Nations, 2021) - (OECD, 2021)
-Poverty	0: Not available	1: Available	2: More than 1 project	Projects to end poverty in all forms everywhere	
-Zero Hunger	0: Not available	1: Available	2: More than 1 project	Projects to end hunger, achieve food security and improved nutrition and promote sustainable agriculture	
-Good Health and Well-being	0: Not available	1: Available	2: More than 1 project	Projects to ensure healthy lives and promote well-being for all at all ages	
Education	0: Not available	1: Available	2: Includes all ages, genders	Projects to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	
Gender Equality	0: Not available	1: Available	2: More than 1 project	Projects to achieve gender equality and empower all women and girls	
Partnerships for the Goals	0: Not available	1: Available		International projects and collaborations to strengthen the means of implementation and revitalize the global partnership for sustainable development	
Culture/Art	0: Not available	1: Available	2: Projects are exclusive	Projects to protect cultural and natural World heritage	
Anti-Corruption and Bribery	0: No description available	1: Combat measures		The statements regarding the measures taken by the companies in the fight against	- (GRI, 2021)

		have been taken		corruption and bribery are evaluated under this criterion.	- (United Nations, 2021) - (OECD, 2003)
Corporate Social Responsibility Awards	0: No explanation/reward	1: There is an award.	2: International award(s) exist(s)	The explanations regarding the awards received by the companies as a result of their social responsibility activities in the relevant period are evaluated under this criterion.	- (GRI, 2021)
Quality Certificates	0: No description/certificate available	1: Certificate available		The explanations regarding the companies' quality documents related to their own sector apart from ISO 9001 are evaluated under this criterion.	- (OECD, 2003) - (GRI, 2021) - (United Nations, 2021)
Citizen Satisfaction				Explanations regarding the surveys conducted to measure consumer satisfaction were evaluated under this criterion. The criterion is grouped under two subheadings.	- (GRI, 2021)
-Citizen satisfaction research	0: No research	1: Research is available		The statements made by the companies regarding the application status of these surveys are evaluated under this criterion.	
Consumer Complaint Mechanism	0: Available	1: Not available	2: ISO 10002 certification is available.	The explanations regarding whether the companies have a system in which they can submit their customers' complaints and whether they have ISO 10002 certificate	- (GRI, 2021)

				are evaluated under this criterion.	
Supplier Selection				The criteria on which the companies choose the suppliers they work with while carrying out their activities are evaluated in this criterion.	
-Equality	0: No description	1: There are equal selection criteria.		Explanations on whether there is a policy of providing equal opportunities to each supplier, away from monopolization, were evaluated under this criterion.	- (Cauxroundtable, 2021)
Compliance with Corporate Governance Principles	0: No description	1: There is an explanation		The company's compliance report with corporate governance principles has been evaluated under this criterion. (Transparency, accountability, fairness, responsibility)	- (OECD, 2003)
Peace, justice and strong institutions					
Participatory budget	0: Not available	1:Available			- (Caldas, Dollery, & Marques, 2020)
Cooperation and Collaboration with local communities	0: Not available	1: Available		Existence of operations with implemented local community engagement, impact assessments, and/or development programs	- (GRI, 2021)

Decision making capacity	0: Not available	1: Available		The decision-making mechanism should be sensitive to needs, inclusive and representative (existence of citizen parliaments)	- (United Nations, 2021)
Natural Capital					
Ratios				The rates at which environmental impacts are measured are evaluated under this criterion.	
-CO2 ((Greenhouse Gas) emissions.	0: No description	1: Within legal limits	2: ISO 14064 Certificate is available.	The explanations of the companies regarding the greenhouse gas emission rates were evaluated under this criterion.	- (GRI, 2021)
-Electricity Usage	0: No description	1: Within legal limits	2: TS16001 Certificate is available.	The explanations regarding the measures taken by the companies for their electricity consumption are evaluated under this criterion.	- (GRI, 2021)
-Water Usage	0: No description	1: Within legal limits	2: Additional measures and augmentation systems are available.	The explanations regarding the availability of waste water management systems for the savings measures for the water usage of the companies were evaluated under this criterion.	- (GRI, 2021)
Environmental Management System ISO 14001	0: No description/no certificate is available	1: There is certificate		The explanations regarding whether it has an environmental management system certificate given by ISO and accepted in the international platform are evaluated under this criterion.	- (OECD, 2003)

Environmentally Friendly Initiatives	0: No explanation	1: There is explanation		The statements about the initiatives of the companies that affect the environment positively are evaluated under this criterion.	- (United Nations, 2021) - (OECD, 2003)
Renewable Energy	0: No explanation/not used	1: Is used		The explanations regarding the support given by the companies to all kinds of renewable energy sourced and whether they use these sources in their activities are evaluated under this criterion.	- (GRI, 2021)
Environmental Impact	0: No explanation/no adverse effects	1: No adverse effects	2: There is a positive effect	The explanations regarding the positive and negative contributions of the companies to the environment, depending on their field of activity or their mode of operation, are evaluated under this criterion.	- (OECD, 2003)
Environment Awards	0: Not available	1: Available		The explanations regarding the awards received by the companies due to their contribution to the environment in the relevant activity period are evaluated under this criterion.	- (Özbay & Selvi, 2014)
Sustainable cities and communities					
-Ecology dimension	0: Not available	1: Available	2: Developed Projects are Available	Initiatives to ensuring access to safe and inclusive green spaces and public spaces and reducing the environmental impact of cities	- (United Nations, 2021)

-Planned Urbanization Dimension	0: Not available	1: Available	2: Developed Systems are Available	Initiatives for; - Safe and accessible housing, - Accessible and sustainable transportation systems, - Inclusive and sustainable urbanization	- (United Nations, 2021)
-Disaster and Emergency Dimension	0: Not available	1: Available		Initiatives for; - Reducing the negative effects of natural disasters - Implementing policies for inclusion, resource efficiency and disaster risk reduction.	- (United Nations, 2021)
Responsible consumption and production	0: Not available	1: Available		Initiatives for significant reduction of waste generation and promoting a universal understanding of sustainable lifestyles	- (United Nations, 2021)
Climate Action	0: Not available	1: Available		Initiatives to integrate climate change-related measures into policies and plans	- (United Nations, 2021)
Intellectual Capital					
Patents and Copyrights					
-Number of new products	0: No description	1: There is an explanation.		The explanations regarding the number of new products put into production or put into service by the company during the year are evaluated under this criterion.	- (Roos, Roos , Edvinsson, & Dragonetti, 1998) - (Bontis, 1998)

-Total number of patents	0: No description	1: There is an explanation.	2: It is above the industry average.	The explanations about the total number of patents and the nature of the patents and the total number of trademarks are evaluated under this criterion.	- (Integrated Reporting Council, 2021)
-Research and development expenses	0: There is no description	1: There is an explanation		Explanations about the nature and status of Research and Development expenses are evaluated under this criterion.	- (Striukova, Unerman, & Guthrie, 2008) - (Prusak, 2001)
-Implied knowledge, systems and procedure and protocols	0: There is no description	1: There is an explanation		The explanations about the company culture and management processes are evaluated under this criterion.	- (Integrated Reporting Council, 2021)
Investments in information technologies	0: There is no description	1: There is an explanation		Information about the details of information technologies and the amount of investment made in information technologies are evaluated under this criterion.	- (Wang & Chang, 2006) - (Seviby, 2008) - (Stewart, 1997) - (Seetharaman, Low, & Saravanan, 2004)
Company culture, management processes	0: There is no description	1: There is an explanation		Disclosures about company culture and management processes are evaluated under this criterion.	- (Goh, 2005)

Annex-2

Metropols and sub-provincial municipalities list

Number	Municipality Type	Name
	Metropol	
1		Adana
2		Ankara
3		Antalya
4		Balıkesir
5		Bursa
6		Denizli
7		Erzurum
8		Eskişehir
9		Gaziantep
10		Hatay
11		İstanbul
12		İzmir
13		İzmit
14		Kahramanmaraş
15		Kayseri
16		Kocaeli
17		Konya
18		Malatya
19		Manisa
20		Mersin

21		Muğla
22		Ordu
23		Sakarya
24		Samsın
25		Tekirdağ
26		Trabzon
27		Urfa
28		Van
	Sub-Provincial	
1	Adana	Yüreğir
2		Sarıçam
3	Ankara	Altındağ
4		Çankaya
5		Etimesgut
6		Gölbaşı
7		Yenimahalle
8	Antalya	Alanya
9		Kepez
10		Konyaaltı
11		Manavgat
12		Muratpaşa
13	Aydın	Efeler
14		Söke
15	Balıkesir	Altıeylül

16		Karasi
17	Bursa	Nilüfer
18		İnegöl
19		Osmangazi
20		Yıldırım
21	Denizli	Merkezefendi
22		Pamukkale
23	Erzurum	Aziziye
24		Yakutiye
25	Eskişehir	Odunpazarı
26		Tepebaşı
27	Gaziantep	Şehitkamil
28		Şahinbey
29	Hatay	Defne
30		İskenderun
31	İstanbul	Ataşehir
32		Avcılar
33		Bahçelievler
34		Bakırköy
35		Beykoz
36		Beylikdüzü
37		Büyükçekmece
38		Çekmeköy
39		Esenler

40		Esenyurt
41		Fatih
42		Kadıköy
43		Kağıthane
44		Küçükçekmece
45		Maltepe
46		Pendik
47		Sancaktepe
48		Sarıyer
49		Silivri
50		Sultanbeyli
51		Sultangazi
52		Şişli
53		Tuzla
54		Ümraniye
55		Üsküdar
56		Zeytinburnu
57	İzmir	Bayraklı
58		Bornova
59		Buca
60		Çiğli
61		Karabağlar
62		Karşıyaka
63		Konak

64	Kahramanmaraş	Dulkadiroğlu
65		Onikişubat
66	Kayseri	Kocasinan
67		Melikgazi
68	Kocaeli	Darıca
69		Gebze
70		Gölcük
71		Körfez
72	Konya	Karatay
73		Meram
74		Selçuklu
75	Malatya	Battalgazi
76		Yeşilyurt
77	Manisa	Akhisar
78		Şehzadeler
79		Turgutlu
80		Yunusemre
81	Mersin	Mezitli
82		Tarsus
83		Toroslar
84	Muğla	Fethiye
85	Ordu	Altınordu
86		Ünye
87	Sakarya	Adapazarı

88	Samsun	İlkadım
89	Tekirdağ	Çorlu
90	Trabzon	Akçaabat
91		Ortahisar
92	Van	Tuşba

Annex-3

Sayın Katılımcı,

Bu araştırmanın amacı, ülkemizdeki yerel yönetimler için ‘entegre rapor’ un uygulanabilir bir kurumsal raporlama modeli olup olmadığını belirlemek, yerel yönetimler için entegre rapor modeli geliştirmek ve yerel yönetimlerin entegre performanslarını ölçmektir. Lütfen, sorulan sorulara ilişkin olarak verilen seçenekler arasında durumunuza en uygun olan seçeneği işaretleyiniz ve anketi doldurduktan sonra cigdem.akbas@gmail.com adresine geri gönderiniz. Sizin görüşleriniz bizim için çok önemlidir. Araştırmamıza gösterdiğiniz ilgi için şimdiden teşekkür ederiz...

Çiğdem AKBAŞ
Yeditepe Üniversitesi
İşletme Anabilim Dalı
Muhasebe Doktora Öğrencisi

1. Cinsiyetiniz:
   - Kadın
   - Erkek
   - Diğer
2. Yaşınız:
   - 18-24 yaş arası
   - 25-34 yaş arası
   - 35-44 yaş arası
   - 45-54 yaş arası
   - 55 yaş ve üzeri
3. Eğitim durumunuz:
   - Lise
   - Ön lisans
   - Lisans

- Yüksek Lisans
- Doktora
- Diğer (lütfen belirtiniz)

4. Toplam çalışma tecrübeniz:

- 1 yıldan az
- 2-9 yıl
- 10-19 yıl
- 20-29 yıl
- 30 yıl ve üzeri

5. Çalıştığınız belediyedeki göreviniz nedir, belirtiniz.

……

6. Bu belediyede kaç yıldır çalışıyorsunuz?

- 1 yıldan az
- 2-9 yıl
- 10-19 yıl
- 20-29 yıl
- 30 yıl ve üzeri

7. Çalıştığınız belediyenin faaliyet gösterdiği il

……

8. Çalıştığınız belediyenin statüsü nedir?

- Büyükşehir belediyesi
- Büyükşehir ilçe belediyesi
- İl belediyesi
- İlçe belediyesi

- Belde belediyesi

9. Belediyenizde çalışan personel sayısı nedir?

- 750 kişiden az
- 750-1249 kişi
- 1250-1749 kişi
- 1750-2249 kişi
- 2250'den fazla

10. Belediyenizde hangi kurumsal raporlama modelleri hazırlanmaktadır? Belirtiniz

……

11. "Entegre Raporlama" modelini daha önceden duydunuz mu?

- Evet
- Hayır

12. Halihazırda belediyenizce yayınlanan finansal ve sosyal içerikli raporların "Entegre Rapor" formatına yakın olduğunu düşünüyor musunuz?

- Evet
- Hayır

13. Entegre Rapor formatının belediyenizce uygulanabilir olduğunu düşünüyor musunuz? Cevabınızı nedeni ile açıklayınız

- Evet
- Hayır

……

14. Lütfen aşağıda verilen ifadeleri okuyarak kendinize en uygun işaretleyiniz (1-Kesinlikle katılmıyorum / 2-Katılmıyorum / 3-Kararsızım / 4-Katılıyorum / 5-Kesinlikle katılıyorum)

	1	2	3	4	5
1. Belediyemiz, çalışanların mesleki anlamda kendilerini geliştirmelerine yönelik her türlü uygulama ve eğitim olanağını sunmaktadır					
2. Belediyemiz, çalışanların yaşam kalitesini artıran sosyal haklar (ulaşım-yemek-spor vs.) sağlamaktadır					
3. Belediyemiz, çalışanlarına hayatlarını sürdürmek için yeterli bir net ücret vermektedir.					
4. Belediyemizin tüm çalışanlara eşit fırsatlar sunduğuna inanıyorum					
5. Belediyemizde prim ödemeleri, sosyal yardımlar, ikramiyeler, bayram ya da yılbaşı gibi özel günlerde yapılan yardımlar ya da motivasyonu artırmaya yönelik parasal yardımları bulunmaktadır					
6. Belediyemizde çalışanlarının performanslarını değerlendirmeye yönelik bir sistem bulunmaktadır					
7. Belediyemizde çalışanlara iş sağlığı ve güvenliği konusunda eğitim verilmekte, gerekli tüm ekipmanlar sağlanmaktadır					

8. Belediyemizde kadın çalışanlara doğum izni, emzirme izni ve doğum sonrası ücretsiz izin hakları gibi yasalarla korunan haklarının yanında kadınlara yönelik pozitif ayrımcılık uygulamaları da bulunmaktadır					
9. Ülkemizde engelli çalışanların hakları yasalarla korunmaktadır. Belediyemizde engelli çalışanlara yönelik yasaların ötesinde pozitif ayrımcılık uygulanmaktadır					
10. Belediyemiz çalışanlarına insan hakları konusunda eğitim verilmektedir					
11. Belediyemiz yönetiminde yer alan kadın çalışanların sayısı erkek çalışanlara eşit ya da daha fazladır					
12. Belediyemizde üst yönetim performansını değerlemeye yönelik bir sistem bulunmaktadır					
13. Belediyemiz, temsilciler ya da anket uygulamaları, araştırma, toplantı ve öneri sistemleri gibi yollarla çalışanları kurum yönetimine dahil etmektedir					

14. Belediyemiz hizmetleri hakkında vatandaşlara tam ve doğru bilgi sunmaktadır					
15. Belediyemiz belirli dönemlerde vatandaş memnuniyeti anketleri düzenlemektedir					
16. Vatandaş memnuniyet anket sonuçları yönetim kararlarında etkilidir					
17. Belediyemiz vatandaşlara ulusal/uluslararası standartlara uygun hizmetler sunmaktadır ilgili kalite sertifikası vardır					
18. Belediyemiz sosyal sorumluluk konusunda stratejiler ya da politikalar belirlemiş*tir*					
19. Belediyemiz, kurumsal sosyal sorumluluk faaliyetlerini açıkladığı, faaliyet raporundan bağımsız, ayrı bir raporlama yapmaktadır					
20. Belediyemiz kaliteli faaliyetleri nedeniyle ödüllendirilmiştir					
21. Belediyemizin satın alma süreçlerinde uygulanan mal ve hizmet kalite standartları bulunmaktadır					
22. Belediyemizin tedarikçi seçimlerinde uyguladığı *adil ve tarafsız* politikaları ve uyum şartları vardır					

23. Belediyemiz toplumun ihtiyaçları doğrultusunda topluma katkı sağlayacak organizasyon ve projelere katkı sağlamaktadır					
24. Belediyemiz işsizlere iş imkanı sağlamak için çaba göstermektedir					
25. Belediyemiz devlete karşı yasal yükümlülüklerini zamanında ve eksiksiz yerine getirmeye önem verir					
26. Belediyemiz çevreye olan olumsuz etkileri azaltan çeşitli programlar uygulamaktadır					
27. Belediyemiz ilgili faaliyet döneminde çevreye katkı dolayısıyla ödüllendirilmiştir					
28. Belediyemizde elektrik ve su tüketimlerine yönelik tasarruf önlemleri alınmaktadır					
29. Belediyemiz gelecek nesillere yönelik yatırımlar yapmaya çalışır					
30. Belediyemiz sivil toplum kuruluşlarına ihtiyaç duydukları desteği sağlar					
31. Sivil toplum kuruluşlarının doğrudan ve dolaylı olarak Belediyemizi ilgilendiren uyarıları mutlaka dikkate alınır					
32. Belediyemiz sorumluluk bilinci taşıyan projelerde diğer belediyelerle birlik ve dayanışma içindedir					

33. Belediyemiz muhtarlarla işbirliği ve dayanışma halindedir. Muhtarların mahalleleri ile ilgili getirdiği sorun ve öneriler dikkate alınır.					
34. Belediyemizde iç kontrol sistemi etkindir					
35. Belediyemizde yolsuzluk ve rüşvetle mücadele yönünde çalışmalar yapılmakta, önlemler alınmaktadır					
36. Belediyemizin etik ilkeleri vardır ve bu ilkeler tüm çalışanlar tarafından dikkate alınmaktadır					

Katkılarınızdan dolayı teşekkür ederiz.

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