

# COVID-19 IN AUDIT REPORTS: A STUDY ON THE EFFECTS OF BUSINESS AND AUDITOR CHARACTERISTICS\*

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## ABSTRACT

This study aims to determine which auditor or business characteristics are associated with the mention of COVID-19 in audit reports. In this context, 475 audit reports of the 2020 financial statements were examined, and reports that mentioned COVID-19 in key audit matters, the emphasis of matter, or other matters paragraphs were identified. As a result of the logistic regression analysis, it was determined that COVID-19 was mentioned more in the audit reports of the larger firms, firms in the sustainability index or the manufacturing sector, and the audits carried out by the Big 4. On the other hand, the gender of the auditor, indexing in the corporate governance index, and the profit of the enterprise are the variables whose effect cannot be determined. The study's findings are significant in that they shed light on several elements influencing the auditor's decision-making process and assess whether the explanation paragraphs are effective preventing the uniformity of the audit reports.

**Keywords:** COVID-19, Audit Reports, Key Audit Matters, Emphasis of Matter Paragraph; Other Matters Paragraph

**JEL Classification:** M40, M42

## DENETİM RAPORLARINDAKİ COVID-19 AÇIKLAMALARI İLE İLİŞKİLİ FAKTÖRLER

### ÖZ

Bu çalışmanın amacı denetim raporlarında COVID-19'dan bahsedilmesinin işletmenin ya da denetçinin hangi özellikleri ile ilişkili olduğunu tespit etmektir. Bu kapsamda 2020 finansal tablolarına ait 475 denetim raporu incelenerek, kilit denetim konularında, dikkat çeken hususlar ya da diğer hususlar paragraflarında COVID-19'dan bahsedilen raporlar tespit edilmiştir. Yapılan lojistik regresyon analizi

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sonucu sürdürülebilirlik endeksinde yer alan işletmelerde, denetim şirketinin 4 büyüklerden biri olması durumunda, firma büyüklüğü arttıkça ve imalat sektöründeki işletmelerin denetim raporlarında COVID-19'dan daha fazla bahsedildiği tespit edilmiştir. Denetçi cinsiyeti, kurumsallık endeksinde yer alma, işletmenin kârı ise etkisi tespit edilemeyen değişkenlerdir Çalışmanın bulguları, denetçinin karar verme sürecini etkileyen çeşitli unsurlara ışık tutması ve açıklama paragraflarının denetim raporlarını tekdüzelikten çıkarmada etkili olup olmadığını değerlendirmesi açısından önemlidir.

**Anahtar Kelimeler:** COVID-19, Denetim Raporu, Kilit Denetim Konuları, Dikkat Çeken Hususlar Paragrafı, Diğer Hususlar Paragrafı

**JEL Sınıflandırması:** M40, M42

## GENİŞLETİLMİŞ ÖZET

### AMAÇ VE MOTİVASYON

Son yıllarda kullanılmaya başlanan kilit denetim konuları, dikkat çeken hususlar ve diğer hususlar paragraflarında nelerden bahsedileceği denetçi yargısına bağlı, mesleki muhakemelere dayalı bir sürecin sonunda belirlendiğinde denetçinin özellikleri, işletmenin özellikleri ya da içinde bulunulan koşullar gibi pek çok farklı değişken, denetim raporunda yer verilecek konuları ve bunların nasıl ifade edileceğini etkilemektedir. Hangi faktörlerin bu süreçte etki sahibi olduğunu bilmek, daha şeffaf, bilgilendirici ve kaliteli denetim raporlarının oluşması ve finansal bilgi kullanıcılarının elde ettikleri faydanın artması bakımından önem arz etmektedir. Bu anlayıştan yola çıkarak, bu çalışma pandemi döneminde denetim raporlarının kilit denetim konuları, dikkat çeken hususlar ve diğer hususlar paragraflarında COVID-19'dan bahsedilmesini etkileyen değişkenleri tespit etmek için oluşturulmuştur.

### ARAŞTIRMA STRATEJİSİ VE YÖNTEMİ

Literatür taramasına göre, denetim raporlarında pandemi sürecine ilişkin açıklama yapma ihtiyacı hissedilen durumların ya da bu açıklamayı yapan denetçilerin ortak bir özelliklerinin bulunup bulunmadığına ilişkin ise herhangi bir çalışma bulunmamaktadır. Bu paragraflardaki açıklamaların finansal bilgi kullanıcılarında yarattığı etki ve pandeminin ekonomik yansımaları göz önüne alındığında ortak noktalarının tespit edilmesi önemli bir ilk adım olacaktır.

Çalışmanın analiz kısmında COVID-19'un bir risk unsuru olarak algılanarak denetim raporlarında yer verilme durumunu tahmin edebilmek amacıyla lojistik regresyon yönteminden yararlanılmıştır. Analiz sürecinde kullanılan bağımlı değişkenlerin tek kategorilik yapıda olması, bağımsız değişkenlerin ise genel olarak normal dağılıma sahip olmamaları bu yöntemin seçilmesindeki en önemli nedendir. Çalışma kapsamında 2020 yılında yayınlanmış 475 denetim raporu incelenmiş, 87 tanesinde Covid-19'dan bahsedildiği tespit edilmiştir. Literatür çalışmalarından yola çıkılarak, “denetim firmasının dört

büyük olması, işletmenin büyüklüğü, işletmenin karlılığı, denetçinin cinsiyeti, işletmenin kurumsal yönetim endeksinde olması, işletmenin sürdürülebilirlik endeksinde olması, işletmenin içinde bulunduğu sektör” değişkenlerinin bağımsız denetim raporunda COVID-19’den bahsedilmesini etkileyip etkilemedikleri araştırılmıştır. İlk aşamada kurumsal yönetim, sürdürülebilirlik, dört büyük denetim şirketi, cinsiyet, kar durumu ve sektör kategorik değişkenleri ile firma büyüklüğü kontrol değişkeninin yer aldığı en geniş kapsamlı model kurgulanmıştır. Sonraki süreçte en uygun modelin tespiti için aralarında korelasyon olan ve/veya istatistiksel olarak anlamsız değişkenler elenmiş ve nihai modeller belirlenmiştir.

### **BULGULAR VE TARTIŞMA**

Yapılan lojistik regresyon analizi sonucu sürdürülebilirlik endeksinde yer alan işletmelerde, denetim şirketinin 4 büyüklerden biri olması durumunda, firma büyüklüğü arttıkça ve işletmenin imalat sektöründe yer alması halinde denetim raporlarındaki açıklama paragraflarında (kilit denetim konuları, dikkat çeken hususlar ve diğer hususlar) COVID -19’den daha fazla bahsedildiği tespit edilmiştir. Sadece kilit denetim konuları bağlamında ise sürdürülebilirlik endeksinde yer almanın, denetim şirketinin 4 büyüklerden biri olmasının ve firma büyüklüğünün COVID-19’den kilit denetim konularında bahsedilmesi ile anlamlı bir ilişkisinin olduğu tespit edilmiştir. Denetçi cinsiyeti, kurumsallık endeksinde yer alma, işletmenin karı ise bu süreçte herhangi bir etkisi tespit edilemeyen değişkenlerdir.

Dört büyüklerin yaptıkları denetimlerde, daha büyük ve sürdürülebilirlik endeksindeki işletmelerde konuya daha fazla yer verilmesi COVID-19’un firmanın gördüğü etkiden ziyade işletme yönetimi ve denetçi tutumundan dolayı denetim raporlarında yer aldığını göstermektedir. Bir denetimin 4 büyükler tarafından yapılması halinde denetim raporlarında Covid-19’dan daha sık bahsedilmesi, Camargo (2012)’nin tespit ettiği gibi 4 büyüklerin adil sunumu etkileyebilecek durumları bildirme olasılıklarının daha fazla olmasıyla açıklanabileceği gibi farklı çalışmalarda ortaya konan 4 büyükler tarafından yapılan denetimlerinin daha kaliteli olmasıyla (Francis & Yu, 2009; Öztürkçü Akçay ve Bilen, 2020; Öner ve İrkörücü,2020), daha bağımsız çalışabilmeleriyle (Carcello, Hermanson & Huss, 2000), risk almaktan kaçınma eğilimlerinin daha az olmasıyla açıklanabilir (Dye,1993). Şeffaflık, paydaşlara verilen önem ve denetim kalitesi arttıkça denetçilerin pandemi ve etkilerinden bahsetme olasılığı da artmıştır. Ayrıca pek çok çalışma tarafından ortaya konan KAM’ların sayı ve içeriğinin sektörler arasında farklılık gösterdiğine ilişkin bulgular (Kavut ve Güngör, 2018; Abdullatif ve Al-Rahahleh, 2020; Karapınar ve Dölen, 2020), bu çalışmayla da desteklenmiştir. Büyüklük ve Covid-19’dan bahsedilme arasındaki ilişki, bu firmaların daha karmaşık olması ve daha denetçinin daha fazla açıklama yapma ihtiyacı hissetmesi ile açıklanabilir.

## SONUÇ VE ÖNERİLER

Çalışma sonuçları bir konunun denetim raporlarına aktarılma sürecinin rastgele ya da tamamen denetçiye bağlı olarak değil farklı değişkenlerin etkisinde ve bir desen izleyerek oluştuğunu göstermesi bakımından önemlidir. Kilit denetim konularının yarattığı etkiyi ortaya koyan çeşitli çalışmalar olmakla birlikte, literatürde diğer hususlar ve dikkat çeken hususlar paragrafları ile ilgili çalışmalara rastlanmamıştır. Gelecek çalışmalarda bu konuların seçimi ve finansal bilgi kullanıcıların karar verme süreçlerine etkilerinin incelenmesi yararlı olacaktır. Ayrıca COVID-19 sürecinin denetim sürecinin yarattığı etkilerin önümüzdeki dönemlerde de devam edip etmeyeceğinin araştırılması, denetimdeki “yeni normalin” varlığını tespit etmek açısından önemlidir.

## 1. INTRODUCTION

World Health Organization (WHO) declared the Coronavirus 19 (COVID-19) pandemic by March 11, 2020. With the number of cases increasing daily, authorities implement a variety of mandatory policies to protect the health of their residents. Measures include the imposition of barriers on intercountry movement and later on intercity movement, temporary closure of schools, theaters, cafes, and restaurants. As part of the personal precautions to prevent transmission, residents are obliged to avoid indoor or congested places. Personal and governmental measures aim to protect micro and macro-economic actors from the coronavirus pandemic.

Despite these measures, the consequences of the COVID-19 are rapidly declining the economic systems and overall business activities. The business actors are obliged to prepare financial statements in this unique environment. However, financial difficulties arising from restrictions increase doubtful accounts, contract production, demand, liquidity issues, significant revenue losses, and increased interest burdens. With these issues, businesses posted extremely unusual financial statements than those in previous years.

Apart from the considerable changes in numbers and content, financial statements have become more vulnerable to errors and fraud as a result of the pandemic. The additional expenditures are incurred because of preventive measures. Moreover, switching to home-office employment has disorganized the internal control system. The unexpected surge in online sales has resulted in recording numerous financial events that the businesses have never encountered previously. These unforeseen circumstances have increased the likelihood of material misstatements in financial statements, especially when combined with significant uncertainties and disparate financial records.

Auditors whose primary task is to provide reasonable assurance about financial statements face a greater risk of material misstatement than they have ever encountered. With this new natural consequence, auditors are forced to update their risk assessment and response practices. The auditor is obliged to conduct research on the effects of COVID-19 on business activities and financial statements

and communicate these effects objectively to financial information users to follow standard audit procedures in such a chaotic environment.

Audit firms and regulatory organizations have started giving solutions to these issues to assist auditors in effectively navigating this procedure. In addition, audit firms offer guidelines by highlighting critical changes and new risks in financial statements and demonstrating the diversifications in audit procedures. Audit firms also offer suggestions regarding the explanations about audit reports and convey these changes to the financial information users. Many of these recommendations emphasize the importance of key audit procedures and offer strategic tools to inform users about the financial information and disclosures related to COVID-19. These paragraphs have been used in recent years to minimize the uniformity of audit reports and provide a report that alerts, guides, and enlightens users. With the emergence of COVID-19, these paragraphs have become critical tools that auditors use in communicating to users regarding the impact of the pandemic on financial information, auditing, and financial statements.

Unless it is contrary to International Auditing Standards, the inclusion of any matter in the audit reports, such as the pandemic, is a subjective decision of the auditor and is based on professional judgment. Moreover, various factors such as the auditor's personality, business characteristics, or the general economic conjuncture can affect the auditor's professional judgment. Thus, these factors can affect the information that will be disclosed in the audit report. Identifying the factors that influence this decision-making is crucial for auditors and regulators to create more transparent, informative, and quality audit reports, thereby increasing the benefit to financial information users. Based on this understanding, the present study explores the factors to consider and be included when preparing COVID-19 audit reports. The findings are significant as they shed light on several elements influencing the auditor's decision-making and assess whether the explanation paragraphs are effective at removing the audit from uniformity. In this context, 475 audit reports covering 2020 financial statements are analyzed, and COVID-19 statements in audit reports are investigated.

The present study discussed why and how COVID-19 impacted the audit process and reports. Second, prior research on the impact of COVID-19 on auditing was reviewed. Finally, after presenting the analysis results of the selected sample, the findings were analyzed, and an evaluation was given.

## **2. AUDIT AND COVID-19**

Personal measures and government-imposed bans impacted all business lines directly or indirectly during the pandemic. The audit sector has also been impacted by these restrictions and regulations in a variety of ways, including increased business risks, critical accounting adjustments, and audit procedures. Therefore, this section discusses the impact of COVID-19 on the audit process and audit

reports.

### **2.1. Effects of COVID-19 on the Audit Process**

COVID-19 did not significantly affect the financial statements of the business community until March 11, 2020, when WHO announced that COVID-19 was pandemic (KPMG Report 2020, 1). As a result, audit firms determined that it was permissible to treat COVID-19 as a non-adjusting post-balance sheet event in their December 2019 financial statements and provide relevant explanations in the footnotes (KPMG Report 2020, 1).

Following the global spread of the disease, many companies started incorporating the impact of COVID-19 on asset and liability measurement, gain and loss recognition, the potential impact on the businesses, and related disclosures on their financial statements issued after March 2020 (Pricewaterhouse Coopers Report 2020). In addition, numerous regulating authorities and organizations globally began offering advice, explanations, and instructions for auditors to devise strategies to avert the pandemic from impairing audit quality. For instance, The Institute of Chartered Accountants of India (ICAI), one of the joint ventures of the Accounting Standards Board and the Auditing and Assurance Standards Board, published a report titled "Impact of Coronavirus on Financial Reporting and the Auditors Consideration" in March 2020. The report mentions the issues that listing firms should pay special attention to due to the pandemic (ICAI Report 2020). In addition, regulatory agencies in many countries published similar applicable suggestions and explanations to safeguard auditors' health and enhance the trustworthiness of audit reports<sup>1</sup>.

In Turkey, the Public Oversight Accounting and Auditing Standards Authority (PO) published the announcement named "The Effect of the COVID-19 Outbreak on the Independent Audits Carried Out" on March 31, 2020. According to the report, it was necessary to make the guiding statements public in order to assist auditors during the pandemic. The pandemic, it is stated, may necessitate different practices or explanations regarding the following issues during the audit process (kgk.gov.tr):

- 1- Adoption of the New Audit Contract
- 2- Audit Planning and Risk Assessment Process
- 3- Materiality
- 4- Audit Evidence
- 5- Continuity of the Business

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<sup>1</sup> Some of the suggestions and announcements dated March 2020: Australian Government Coronavirus Guidance <https://auasb.gov.au/implementation-support/coronavirus-covid-19-guidance/>, FRC COVID-19 Bulletin March 2020 <https://www.frc.org.uk/about-the-frc/covid-19/covid-19-bulletin-march-2020>, Accountancy Europe <https://www.accountancyeurope.eu/publications/coronavirus-crisis-implications-on-reporting-and-auditing/>

6- Group Audits

7- Key Audit Issues

8- Potential Impacts on the Auditor's Report

9- Events after the Balance Sheet Date.

The impact of pandemics on auditing can be viewed in two ways when early recommendations are considered. The first is the impact of COVID-19 on enterprises' financial statements. Significant changes in enterprise revenues are remarked across all sectors. Moreover, new costs are imposed by regulations, and there is a deterioration of general macroeconomic indicators. Accounting estimates are much more uncertain in that economic environment, and enterprises' rapid digitalization efforts have significantly increased the risk of material misstatement. Similarly, factors such as the transfer of businesses to a home-office environment, the expansion of remote access to computer programs, and shifts in working hours have rendered many businesses' internal control systems ineffective, thereby increasing control risks (www.pwc.be). Given the current situation, auditors have become critical in assessing these new risks and estimating their implications. Therefore, remarkable changes are shown in the scope and type of work to be done.

The second impact of the pandemic on the audit profession is the difficulties encountered while conducting the audit profession. Auditors face various obstacles during the audits since one of the auditors' requirements is to be physically present at the firms when conducting their auditing service. For example, examining inventories has been the subject of discussion since the pandemic has emerged (Dohrer 2020). International Standards on Auditing (ISA) 501 requires auditors to participate in the inventory count because inventories are classified as current assets in the financial statements. However, Para A12 allows the auditor to apply alternative audit procedures if the inventory is located in a place that may threaten the auditor's safety (ISA 501- A12). In many countries, COVID-19 does not make it possible for auditors to participate in inventory counts due to government restrictions and concerns about the safety of personnel (Institute of Chartered Accountants in England and Wales (IACEW) Report 2020a). As a result, regulators and auditing firms have published numerous resources to present strategies for implementing the aforementioned alternative audit procedures rarely used before<sup>2</sup>.

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<sup>2</sup>For detailed information; IAASB Guidance for Auditors During The Coronavirus Pandemic, <https://www.iaasb.org/focus-areas/guidance-auditors-during-coronavirus-pandemic>; IFAC Summary of Covid-19 Audit Considerations <https://www.ifac.org/knowledge-gateway/supporting-international-standards/discussion/summary-covid-19-audit-considerations>; FRC Guidance for Auditors and Matters to Consider Where Engagements are Affected by Coronavirus, <https://www.frc.org.uk/getattachment/ae0044e3-a7bf-4b75-8aa2-4e39e20f525b/Bulletin-Coronavirus-Guidance-December-2020.pdf>; CPA Canada Audit Considerations Related to the COVID-19 Pandemic, <https://www.cpacanada.ca/-/media/site/operational/rg-research-guidance-and-support/docs/02455-rg-audit-considerations-related-covid-19.pdf?la=en&hash=3894574CFB88585EE301CA69B89049D7B852A8AA>

During the quarantine and restrictions, the audit team is required to conduct interviews and discussions with management. While these interviews and discussions are typically conducted in person, video conferences have become indispensable auditing tools during the pandemic. A similar format is used to organize meetings with the audit team (Merton 2020).

The Association of Chartered Certified Accountants (ACCA) described the pandemic as a "trigger" event requiring more frequent impairment testing and skepticism in audit procedures. It has been stated that due to the uncertain economic conditions affecting future business performance and accounting assumptions and estimates, the valuation of financial statement elements will likely be complex. Thus, auditors should accept an increased audit risk in asset valuation (ACCA Report 2020, 2). In addition, the report recommended that auditors should consider changes in the organization's internal control system due to COVID-19 and determine whether reliance on controls is reassessed (ACCA Report 2020, 3). In summary, current constraints or risks have necessitated the adoption of new audit procedures and standardized audit practices.

## **2.2. Effects of COVID-19 on Audit Reports**

The International Federation of Accountants (IFAC) has predicted that during the COVID-19 period, there will be an increase in material misstatements in financial statements when sufficient and appropriate audit evidence cannot be obtained. Therefore, audit reports containing a modified opinion may increase (IFAC Report 2020a). In addition, the material uncertainty related to concern paragraphs will be more added in the audit reports, and COVID-19 will be mentioned in related paragraphs (ICAEW Report 2020b).

### **2.2.1. Audit Opinion**

Apart from the effect of COVID-19's economic uncertainty on accounting estimates and business risks, the application of accounting policies that the entity has not adequately evaluated may result in material misstatements in the financial statements. In this case, the audit opinion might change to a modified opinion. For example, not disclosing the privileges provided by the "COVID-19-Related Rent Concessions" amendments in The International Financial Reporting Standards (IFRS) 16 Leases Standard in this process or failure to perform impairment tests on financial statement items may cause material misstatements. In addition, the auditor may be required to express a modified opinion if the auditor is unable to obtain sufficient appropriate audit evidence regarding the claims in the financial statements due to existing restrictions. The possible effects of COVID-19 on audit opinions are exemplified in Table 1.



In addition to the possibility that COVID-19 may affect the audit opinion, financial information users must evaluate the audit opinions disclosed in this period considering the pandemic. While the auditor's qualified opinion resulting from failure to obtain sufficient and appropriate audit evidence due to failure to perform audit procedures is a distress signal for the entity under normal circumstances, obtaining such opinions under restraint conditions should be considered a technical limitation (PwC Report 2020).

**Table 1. The Emergence of a Modified Opinion Due to COVID-19**

<b>Qualified opinion on financial statements due to material misstatement</b>	<b>Qualified opinion due to failure to obtain sufficient appropriate audit evidence on the financial statements</b>
The disclosures in the financial statements are not appropriate or sufficient. Example: Financial statements where it does not include all required disclosures that appropriately describe the effects of the COVID-19 pandemic on the business, including the risks, estimates, and accounting policies involved.	Circumstances beyond the entity's control or related to the nature or timing of the auditor's work. For example, the auditor's ability to access accounting records or obtain audit evidence may be restricted by government lockouts and travel bans during the COVID-19 pandemic (for example, access to information or individuals, information that may be relevant to the organization, or components including partners and joint ventures).
Failure to properly apply the entity's accounting policies. For example, recognizing and measuring assets and liabilities without considering the effects of the pandemic following an entity's accounting policies.	

Source: (IFAC Report 2020b)

### **2.2.2. Material Uncertainty Related to Going Concern**

As the fluctuations in the global economy and the measures taken increase the uncertainty of the current economic situation for many companies, assessing the entity's ability to continue as a going concern will be one of the main focuses of audit work. However, this should not necessarily be interpreted as the automatic existence of a material uncertainty that seriously doubts the entity's ability to continue as a going concern. The increase in risk on the ability to continue as a going concern will depend on the unique conditions of each enterprise. However, considering the harmful effects of COVID-19 on the economy, it is foreseen that the "Material Uncertainties Related to Going Concern" sections in the audit reports may become much more common. (ICAEW Report 2020b).

The need to apply additional audit techniques against all other possibilities, especially evaluations for the continuity of businesses due to the harmful effects of the pandemic and the deterioration in companies' financial structure and performance, should be carefully evaluated by auditors (Karataş 2020).

### 2.2.3. Key Audit Matters, Emphasis of Matter, and Other Matter Paragraphs

It would be appropriate to mention the coronavirus outbreak in key audit matters (KAMs), emphasis of matters, and other matter paragraphs if it does not affect the audit opinion but does not affect the audit process or the financial statements. Where and how to mention it varies depending on the auditor's judgment as well as the audit firm's policy. For example, KPMG Netherlands stated that it would be mentioned in the paragraph of other matters with exceptions (KPMG Report2020).

**Key Audit Matter (KAM):** Key audit matters are defined in ISA 701 Communicating Key Audit Matters in the Independent Auditor's Report as "Those matters that, in the auditor's professional judgment, were of most significance in the audit of the financial statements of the current period." (ISA 701, art. 8). A matter that gives rise to a modified opinion, or a material uncertainty about events or conditions that may cast significant doubt on the entity's ability to continue as a going concern, shall not be disclosed in the KAM section of the auditor's report (ISA 701 art. 15).

The Australian Auditing and Assurance Standards Board (AUASB) has stated that auditors should consider changing circumstances and the impact of COVID-19 on their clients and the audit process when determining which issues are KAM and how they are addressed (AUASB Report 2020).

The challenges and uncertainties caused by COVID-19 have expanded the scope of KAMs. For example, difficulties in performing audit procedures due to COVID-19 or evaluating evidence to form a basis for audit opinion can be expressed as KAM (valuation of financial instruments, fair value calculation) (The International Auditing and Assurance Standards Board (IAASB) Report 2020). Also, in areas where COVID-19 has made it difficult for the auditor to obtain the necessary evidence, such as asset valuations and impairment testing, it may be appropriate to disclose these issues as KAM as the auditor puts more effort than usual (Chartered Accountants Australia New Zealand Report 2020). However, if an issue is of fundamental importance for financial information users to understand financial reports, it should be noted in the emphasis of matter paragraph.

Consideration of a KAM section for additional audit processes done in response to the COVID-19 outbreak became necessary in a number of audits. Issues such as showing how to participate in inventory counts, how to conduct external verifications, how to monitor teleconferences regarding inquiries, how to access companies' information systems, and what alternative evidence collection techniques are used to keep audit risks at an acceptable level can be exemplified as possible Cam's in this process. (Karataş 2020).

**Other Matter:** A paragraph included in the auditor's report refers to a matter other than those presented or disclosed in the financial statements that, in the auditor's judgment, is relevant to users' understanding of the audit, the auditor's responsibilities, or the auditor's report (ISA 706 art.5). The subject matter mentioned in the other matters paragraph should not be legally prohibited or determined

as a KAM.

Other matters paragraphs about COVID-19 are used to enhance the auditor's understanding of the financial statements and the predictive power of users of financial information. This paragraph is used for different purposes, such as to indicate that the impact of the pandemic on the future operations of businesses cannot be reasonably estimated or to express that it is not expected to adversely affect the long-term results of firms' operations in sectors such as Pharma & Health.

**The Emphasis of Matter:** A paragraph included in the auditor's report refers to a matter appropriately presented or disclosed in the financial statements that, in the auditor's judgment, is of such importance that it is fundamental to users' understanding of the financial statements (ISA 706 art.5).

The uncertainty caused by COVID-19 has led many auditors to include in their reports an emphasis of matter or other matter paragraph highlighting the uncertainty caused by COVID-19 (ACCA Report 2020, 10).

ISA 706/A5 cited "A major catastrophe that has had, or continues to have, a significant effect on the entity's financial position" as an example of a situation where it may consider it necessary to add a note of emphasis of matter paragraph. Whether the COVID-19 outbreak represents a major disaster with a significant impact on the business's financial condition is up to the auditor's judgment. Accordingly, not every entity is expected to have this paragraph in their audit reports. It is appropriate for use only when the matter is essential to the user's understanding of the financial statements (ICAEW Report 2020a).

In the context of COVID-19, the emphasis of matter paragraph can also be added to the report regarding asset valuations, where valuers specifically refer to the material uncertainty related to COVID-19 in their reports, and managers disclose this in the financial statements and related footnotes. Including this paragraph in the report does not imply that the auditors believe that the valuation in the financial statements is inappropriate; it means they highlight the material uncertainty disclosed because they believe the information is essential to users who want to understand the financial statements.

The business may be sued for violating the terms of a contract due to the pandemic. There can be uncertainty about the outcome of the case and a high level of judgment in deciding whether there is a liability, contingent liability, or no liability to be recognized. In that case, the auditor may indicate this in the emphasis of matter paragraph (ICAEW Report 2020b).

The common point of the explanations made by the authorities and audit firms is that where and how the coronavirus pandemic is mentioned in the audit report will change depending on the auditor's judgment. Despite numerous recommendations and guidelines, the final decision is left to the auditor.

As of November 2020, the coronavirus was a KAM 574 times in auditor reports in Europe. Other matters paragraph follows it with 289 references and material uncertainty related to going concern

paragraph with 171 references. It was stated that the majority of businesses (52%) that mention the coronavirus in KAMs are small-scale companies with a market value of fewer than 100 million Euros, approximately 30% of the companies are in the Finance, Insurance, and Real Estate sector, and 23% are in the services sector (AuditAnalytics Report 2020). The Auditing and Assurance Standards Board (AUASB) observed that as of the end of March 2020, approximately 32% of the KAMs, 16% of the emphasis of matter paragraphs include explanations of COVID-19's impact on the financial statements and the procedures performed by the auditor (AUASB Report 2020).

To summarize, COVID-19's effects can be explained in different parts of the audit report, depending on the severity and impact. As explained in the literature, the form and scope of these disclosures are affected by various factors, and they are interpreted in different ways by financial information users and affect the business with different severity.

### 3. LITERATURE REVIEW

Numerous studies, particularly in Turkey, have explored the impact of the pandemic on auditing and audit reports, according to a December 2021 literature review. The conclusions of the studies are provided below.

The preliminary studies are in the nature of theoretical advice on improving the audit to mitigate the epidemic's impacts. Başkan (2020) determined that detailed disclosures should be made in the reports to include the impact of the pandemic on the going concern assumption and provide reasonable assurance to information users. Karakaya (2020) emphasized the pandemic's effects on going concern assumptions and the principles that should be considered in auditing. Adana and Özbirecikli (2020) discussed the COVID-19's effects on the planning and execution of the audit, collecting physical evidence, and stated that auditors should consider these effects when planning the audit process and preparing the auditor's report. Selimoğlu, Yeşilçelebi ve Altunel (2021), found that arrangements were made in accordance with ISA 315, 330, 540, 560, 570, 600, 700, and 720 during the COVID 19 pandemic. Throughout the COVID - 19 pandemic period, some difficulties within the scope of audit planning were encountered, and recommendations were made. Finally, Bircan (2020) stated that every stage of the audit profession is affected by global economic crises such as COVID-19, and an agile audit approach will be an essential approach to combat adverse effects.

Rashwan and Alhelou (2020) concluded that artificial intelligence significantly improves accounting efficiency and professional performance and increases the ability to complete complex audit work during the pandemic. On the other hand, Albitar et al. (2021) believe that COVID-19 social distancing can drastically affect audit fees, going-concern assessments, human capital, audit procedures, audit staff salaries, and ultimately severe impact on audit quality. To mitigate the effects of this situation, they

advise audit firms to invest more in digitalization and allow authorities to provide temporary relaxation in audit regulations.

The empirical research gathered momentum with the gathering of the initial data from the audit reports, and the first results on the pandemic's effect on the audit were received. Karakoç and Gündüz (2021) showed that, whereas 99 enterprises reported the effects of Covid-19 in their period-end financial statements, only five interim audit reports included such remarks. The great majority of firms that include the impacts of Covid-19 in their limited audit report do so under the heading "Emphasis of Matter Paragraph." According to Acar Uğurlu and Sarısoy (2021), due to the pandemic, it has become clear that independent auditors are unable to gather sufficient and relevant audit evidence and cannot perform quality audits compared to previous work. In addition, the dangers of not ensuring the continuity of the enterprises have emerged. As a result of Parlak's research (2021), it was determined that auditors evaluated Covid-19 in their audit reports and offered explanations in other matter and emphasis of matter paragraphs. However, audit reports concluded that Covid-19 had no discernible influence on the business's continuity or the status of expressing an opinion other than an unqualified one. Deniz (2021) determined that while the capital structure of deposit banks influenced the review report's opinion, the explanations for Covid-19 and the time during which the report was published had no effect on the audit opinion. Hay, Shires, and Dyk (2021) found that COVID-19 was initially expected to impact audit results significantly, but the resulting impacts were much less significant. However, the authors anticipate reforms, such as non-audit services, audit reports, and disclosures about going concern.

To summarize, if the impact of the pandemic on the financial statements or audit reports is significant, the auditor is obliged to explain this situation to the financial information users in the audit reports. If the pandemic is an essential and risky issue for the audit, it is explained in the KAMs. If it is crucial to understand the financial statements, it is necessary to refer to them in the other matters or the emphasis of matter paragraphs for the report to achieve its purpose. However, including any subject in the audit reports, including the pandemic, is a subjective decision made by the auditor's professional judgment. So, it will inevitably be affected by various external factors like every decision-making process. This theory is evidenced by studies showing that various factors influence the quality and quantity of disclosures on KAMs.

The study aims to ascertain whether there is any generalization in the decision to include COVID-19 in the audit report. As a result, the study's research question is "Which characteristics are associated with COVID-19 mentions in audit reports?". As a result, it is intended to determine the factors that influence COVID-19 mentions in audit reports. Given the impact of the KAM disclosures on financial information users and the pandemic's overall economic consequences, establishing the common points of these disclosures will be a critical first step toward revealing the audit quality of the pandemic process and auditors' common sense.

#### 4. RESEARCH

At the auditor's discretion, the final decision as to whether the COVID-19 outbreak has material impacts on the entity's financial statements or audit process. Considering the effects of the outbreak, the auditor may describe matters that she/he deems significant in one of the paragraphs of the audit report's material uncertainty relating to going concern, key audit matters, emphasize of matter, or other matter paragraphs. An auditor may not need to make any disclosures if she/he believes that the entity, financial statements, or the audit process have not been significantly affected by the outbreak. The research below is designed to reveal which factors are related to the auditor's decision on this issue.

##### 4.1. Variables & Descriptive Statistics

This study aims to identify the attributes associated with the inclusion of COVID-19 in audit reports. In this context, the 12-month audit reports, and financial statements of 475 companies in 2020, whose audit reports are available on the Public Disclosure Platform (PDP) website, were examined. Based on the literature mentioned earlier, it was investigated whether the following variables affect the mention of COVID-19 in the independent audit report. The variables included in the study are summarized in Table 2.

**Table 2. Variables Used in the Analysis**

Variable	Measurement
<b>Dependent variables</b>	
Mention of COVID-19 in audit report (Y1)	1= mentioned, 0= not mentioned
Mention of COVID-19 in KAMs (Y2)	1= mentioned, 0= not mentioned
<b>Independent variables</b>	
Auditor gender	woman=1, man=0
Being traded in the corporate governance index	1= the company is traded in the corporate governance
Being traded in the sustainability index	1= the company is traded in sustainability index,
The sector of the firm	1= manufacturing sector, 0 = otherwise
Auditor	1 = Big-4 auditor, 0 = otherwise
Size of the firm	The logarithm of asset size
Profitability of the firm	1=if the firm made a profit, 0= if the firm made a loss

Table 3 below shows the frequency and percentage of the variables. As can be seen from the table, while COVID-19 was mentioned in the audit reports of 87 of 475 companies, 54 of these explanations are on KAMs.

**Table 3. The Frequency and Percentage of the Variables**

Variables	Groups	Frequency	Percentage
The sector of the firm	Manufacturing	171	36.00
	Non- manufacturing	304	25.47
Auditor	Non-big 4 audit firms	224	47.16
	Audits by the big 4	251	52.84
Auditor gender	Male	409	86.11
	Female	66	13.89
Loss vs. Profit of the firm	Firms with loss	94	19.70
	Firms with profit	381	80.20
Mention of COVID-19 in audit report (Y1)	Reports without mention	388	81.68
	Reports mentioning	87	18.32

Mention of COVID-19 in KAMs (Y2)	Reports without mention	421	88.63
	Reports mentioning	54	11.37
Being traded in the corporate governance index	Firms not in the index	423	89.05
	Firms in the index	52	10.95
Being traded in the sustainability index	Firms not in the index	416	87.58
	Firms in the index	59	12.41

#### 4.2. Methodology

In the analysis part, the logistic regression method is used to model COVID-19 as a risk factor for the financial statements or the audit process and is included in the audit reports. The most important reasons for choosing this method are that the dependent variables used in the analysis process are two-valued (binary), and the independent variables do not generally have a normal distribution.

The fact that the dependent variable has a nominal scale structure in the estimation process makes the Least Squares method insufficient. For this reason, the use of the Logit model is more effective in a model where the dependent variable is a nominal scale. The dependent variable is at least a binary discrete variable in the Logit model. This feature of the dependent variable differentiates the selection and estimation process of the parametric model. This method calculates the effects of explanatory variables on the dependent variable as probabilities.

The suitability and reliability of the current model and its level of significance are determined by the Omnibus Test. In addition, with the Hosmer and Lemeshow test statistics, the R<sup>2</sup> value of the constructed model, that is, its representation ability, is determined.

A forward estimation can be developed in logistic regression analysis by articulating the univariate model to construct the most appropriate model. Another option is to determine the most appropriate model with backward steps from the model in which all explanatory variables are included.

In this study, the most comprehensive model, including corporate governance, sustainability, big four auditing companies, gender, profit status and sector categorical variables, and firm size control variable, was constructed in the first stage. Then, to determine the most appropriate model, the correlated and/or statistically insignificant variables were eliminated, and the final models were determined.

#### 4.3. Analysis and Findings

In the light of the data set compiled by using the audit reports of 475 companies, the logistic regression method was used to determine whether there is a structural difference between the audit reports mentioning COVID-19 and the audit reports that do not mention COVID-19. Two-category logit regression models were constructed in the analysis process (binary). Accordingly, the dependent variable was defined with two categorical values, 0 and 1. Besides, two different dependent variables, Y1 and Y2, were used, and two main models were studied. When the variable to be explained in the study is expressed with Y, categorical dependent variables are defined as:

$$Y1 = \begin{cases} 0, Covid - 19 \text{ was not mentioned in the audit report} \\ 1, Covid - 19 \text{ was mentioned in the audit report} \end{cases}$$

$$Y2 = \begin{cases} 0, Covid - 19 \text{ was not mentioned in the KAMs} \\ 1, Covid - 19 \text{ was mentioned in the KAMs} \end{cases}$$

In the light of the theoretical and empirical literature, to determine the variables that most affect the dependent variable; the following model was created using the functional relationship:

$$Y = f(\text{Sustainability, Corporate Governance, Industry, Big4, Gender, Profit, Firm Size, etc.})$$

In the following process, unnecessary and ineffective variables were determined using the backward step-by-step variable elimination method (Backward Stepwise-Wald) in logit regression analysis. Thus, the most efficient estimator could be determined in two main models.

Table 4 includes the results of the Y1 variable, which indicates "audit reports mentioning COVID," and Model 1, which was constructed according to the explanatory variables. In the first stage of the model, which was estimated in four stages, the effects of all variables on the dependent variable were tried to be determined. In the following stages, insignificant variables were eliminated, and the final model was reached in which the variables of sustainability, Big4, firm size, and industry were statistically significant.

**Table 4. The Results of Model 1 for the Audit Reports Mentioning COVID-19 (Y1)**

Y1	Stage 1	Stage 2	Stage 3	Stage 4
Sustainability (1)	0.478 (0.214) [1.613]	0.477 (0.213) [1.611]	0.617* (0.062) [1.853]	0.631* (0.056) [1.880]
Big4 (1)	0.543** (0.047) [1.721]	0.543** (0.047) [1.722]	0.563** (0.038) [1.756]	0.603** (0.024) [1.827]
lnFirm Size	1.117 (0.101) [1.216]	1.121* (0.097) [1.222]	1.220* (0.051) [1.248]	1.340** (0.012) [1.260]
Manufacturing (1)	0.882 (0.152) [1.004]	0.893 (0.142) [1.009]	0.992 (0.125) [1.014]	0.994* (0.097) [1.029]
Profitdummy (1)	-0.010 (0.974) [0.990]	-	-	-
Corporate Governance (1)	0.292 (0.463) [1.339]	0.293 (0.459) [1.341]	-	-
Gender (1)	0.313 (0.331) [1.367]	0.313 (0.330) [1.368]	0.307 (0.339) [1.359]	-
Constant	-1.966*** (0.000) [0.140]	-1.974*** (0.000) [0.139]	-1.967*** (0.000) [0.140]	-1.944*** (0.000) [0.143]
Significance of Model Coefficients Omnibus Test	14.618**	14.618***	14.081***	13.196***
Log-Likelihood	294.711	294.711	295.843	295.848
Cox-Snell R <sup>2</sup>	0.114	0.114	0.114	0.113
Nagelkerke R <sup>2</sup>	0.213	0.213	0.213	0.212

The p values for the variables discussed are shown in ( ), and the odd's values are shown in []

\* p<0.1



\*\* p<0.05

\*\*\* p<0.01

Table 5 shows the results of Model 2 constructed for the Y2 variable. Again, insignificant variables were eliminated at each stage of the model, estimated in four stages. The most suitable model was reached in which the variables of sustainability, big 4, and firm size were statistically significant.

**Table 5. The Results of Model 2 for the Audit Reports Mentioning COVID-19 in KAMs (Y2)**

Y2	Stage 1	Stage 2	Stage 3	Stage 4
Sustainability (1)	0.645 (0.108) [1.905]	0.645 (0.107) [1.906]	0.654 (0.100) [1.924]	0.773** (0.024) [2.167]
Big4 (1)	3.150*** (0.000) [23.330]	3.150*** (0.000) [23.343]	3.146*** (0.000) [23.244]	3.162*** (0.000) [23.619]
lnFirm Size	1.244 (0.113) [1.186]	1.244 (0.111) [1.191]	1.246 (0.109) [1.198]	1.251** (0.038) [1.202]
Manufacturing (1)	0.411 (0.125) [1.012]	0.423 (0.122) [1.035]	0.442 (0.114) [1.039]	0.447 (0.111) [1.044]
Gender (1)	0.005 (0.991) [1.005]	-	-	-
Profitdummy (1)	0.083 (0.830) [1.086]	0.082 (0.830) [1.086]	-	-
Corporate Governance (1)	0.265 (0.538) [1.304]	0.265 (0.538) [1.303]	0.254 (0.552) [1.290]	-
Constant	-4.786*** (0.000) [0.008]	-4.785*** (0.000) [0.008]	-4.717*** (0.000) [0.009]	-4.710*** (0.000) [0.009]
Significance of Model Coefficients Omnibus Test	62.559***	62.559***	62.513***	62.164***
Log-Likelihood	273.641	273.641	273.688	274.036
Cox-Snell R <sup>2</sup>	0.124	0.124	0.124	0.123
Nagelkerle R <sup>2</sup>	0.243	0.243	0.243	0.242

The p values for the variables discussed are shown in ( ), and the odd's values are shown in []

\* p<0.1

\*\* p<0.05

\*\*\* p<0.01

## 5. CONCLUSION

Recent regulations seek to minimize the uniformity of the audit reports and provide a report that guides and enlightens users on the multifaceted disclosure regarding delivering auditors' opinions on the financial statements. In recent years, the inclusion of Key Audit Matters (KAMs), the Emphasis of Matter, and other matters paragraphs in audit reports have been targeted towards accomplishing this purpose. These paragraphs represent a significant step toward making auditing move away from monotonous reporting and improving the informativeness of audit reports. As the number of studies

proves that these paragraphs contribute to decision-making, selecting information to be included in these paragraphs has become a critical point in the audit process.

Currently, the audit opinion and disclosures in the audit report is a process based on professional judgment, which depends on the auditor's knowledge, skills, training, experience, standards, regulations, or principles of the applicable financial reporting framework. Since various factors such as the auditor's personality, the business characteristics, or the general economic conjuncture can affect the auditor's professional judgment, they are expected to affect the issues to be disclosed in the audit report and how they are expressed. Identifying the factors that occupy a role in this decision-making will guide both auditors and regulators in creating more transparent, informative quality audit reports and increasing the benefit of financial information users. Based on this perspective, this study is designed as preliminary research aiming to determine the factors affecting the COVID-19 in audit reports in Turkey.

Within the scope of the study, 475 audit reports published in 2020 were examined, and it was determined that 87 of them mentioned COVID-19. The logistic regression analysis results found that COVID-19 was mentioned in the audit reports of the larger firms, in the firms in the sustainability index, and the audits conducted by the Big 4. When KAMs are considered, it has been observed that COVID-19 was mentioned more in the audit reports of the larger firms, firms in the sustainability index, and the audits conducted by the Big 4. No significant relationship is found between the auditor's gender, the corporate governance index, and the profit of the enterprise.

The increased mention of COVID-19 in Big 4 audit reports is consistent with Camargo's (2012) finding that the Big 4 are more likely to highlight issues that potentially influence the fair presentation. This finding also corroborates previous research indicating that Big 4 audits provide additional context for KAM (Ferreira and Morais 2020) and favor risk aversion (Dye 1993).

The presence of COVID-19 in the companies' audit reports in the sustainability index corresponds with companies' transparency, accountability, and risk-focused policies. "... the aim of developing risk management skills related to corporate transparency and accountability and sustainability issues" is among the reasons for establishing the index in the BIST stock index and for showing that auditors consider this perspective in their audits.

This analysis also corroborated previous results (Kavut and Güngör 2018, Abdullatif and Al-Rahahleh 2020, Karapınar and Dölen 2020), revealing that the number and content of KAMs vary by sector. Differentiating KAMs by sector shows that the auditors take the firm's sector into account when determining the KAM or that some industries require additional explanations than others.

The correlation between firm size and COVID-19 shows that these firms are more complex, charge higher audit fees, or require more disclosure from their auditors. However, this view must be examined in greater detail since no direct evidence supports this assertion.

All the findings are significant because they demonstrate that transferring the content to audit reports does not occur randomly or is not entirely at the auditor's discretion, but a variety of variables influences it, and it follows a pattern. Auditors are more likely to discuss the pandemic and its repercussions with increased transparency, stakeholder engagement, and audit quality.

Additionally, since the contents of these paragraphs in audit reports vary according to the peculiarities of the organizations, this demonstrates that these paragraphs are critical instruments for eradicating audit report uniformity. As a result, the regulators' instructive and supportive actions for these paragraphs will improve the audit reports.

According to the literature, firms with a higher frequency of COVID-19 mentions in audit reports exhibit features of strong corporate governance. Given the premise that good corporate governance procedures are positively correlated with a firm's demand for quality auditing, it may be asserted that COVID-19 mentions are more prevalent in the reports of corporations that seek quality auditing. The relevance of these paragraphs to audit quality should be investigated more closely.

While studies demonstrate the impact of KAMs, research results on the Emphasis of Matter or other matters paragraphs are not yet available in the literature; future studies will help examine these paragraphs and their effects on financial information users' decision-making. Additionally, examining the long-term effects of COVID-19 on the audit process is critical for establishing "the new normal" in auditing.

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