

CHARACTERISTICS OF NON-PUBLIC SMALL AND MEDIUM ENTERPRISES THAT DEMAND AUDIT SERVICES: EVIDENCE FROM TURKEY*

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ABSTRACT

The necessity and scope of mandatory audit is an issue discussed alongside benefit-cost evaluations. The characteristics of companies demanding audits are noteworthy in this respect. This study aims to contribute to the discussions on audit demand and mandatory audit, with evidence from Turkey. A non-experimental research approach is employed to identify the distinctive characteristics of SMEs that demand audit. Evidence supporting previous studies is obtained on the relationship between audit demand and size, financing relationships and ownership structure. Furthermore, the results also significantly support the hypothesized association between audit demand and internationalization, R&D, and legal system perception.

Keywords: Audit Demand, Mandatory Audit, Agency Theory

JEL Classification: M40, M42

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BAĞIMSIZ DENETİMİ TALEP EDEN HALKA AÇIK OLMAYAN KOBİ'LERİN KARAKTERİSTİK ÖZELLİKLERİ: TÜRKİYE ÖRNEĞİ

ÖZ

Zorunlu bağımsız denetimin gerekliliği ve kapsamı, fayda-maliyet değerlendirmeleri ile tartışılmalı bir konudur. Talep eden firmaların özellikleri de söz konusu değerlendirmeler kapsamında dikkate değer bir boyuttur. Bu çalışma ile zorunlu bağımsız denetim ve bağımsız denetim talebi eksenindeki tartışmalara Türkiye'den örneklerle katkı sağlamak amaçlanmaktadır.

Çalışmada deneysel olmayan bir araştırma tasarımı kullanılmış olup, bağımsız denetimi talep eden firmaların farklılaşan özellikleri ortaya konulmaya çalışılmıştır. Bağımsız denetim talebi ile şirketlerin büyüklükleri, finansman ilişkileri ve mülkiyet yapıları arasındaki ilişki konusunda literatürle paralel olarak destekleyici kanıtlar elde edilmiştir. Ayrıca bulgular, denetim talebi ile Ar-Ge yatırımları, uluslararasılaşma ve yasal düzene ilişkin algı arasındaki öngörülen ilişkileri desteklemektedir.

Anahtar Kelimeler: Bağımsız Denetim Talebi, Zorunlu Bağımsız Denetim, Vekalet Teorisi

JEL Sınıflandırması: M40, M42

GENİŞLETİLMİŞ ÖZET

AMAÇ VE MOTİVASYON

Bağımsız denetim talebi konusu, farklı ülkelerde faaliyet gösteren şirketler üzerinden araştırmaya konu edilmiş bir araştırma alanı olarak literatürde önemli bir yer bulmaktadır. Farklı ülkeler ifadesi aynı zamanda farklı yasal düzenler, farklı sosyal-kültürel yapılar ve farklı kurumsal yaklaşımları da işaret etmektedir. Bütün bu farklılıklar, doğrudan veya dolaylı bir şekilde tüm denetim pratiğini ve bununla birlikte bağımsız denetim talebi olgusunu da şekillendirebilecek faktörlerdir.

Şirketlerin bağımsız denetime olan taleplerini makro düzeyde şekillendirebilecek unsurların yanı sıra mikro düzeyde etkileyebilecek olanlar da söz konusudur. Bu nedenle aynı ülkede faaliyet gösteren ve bağımsız denetimi talep eden şirketlerin, etmeyen şirketlere göre farklılaşan karakteristik özellikleri araştırmaya değer görülmektedir.

Söz konusu karakteristik özelliklerin ortaya çıkarılması aynı zamanda zorunlu bağımsız denetimin kapsamı konusundaki tartışmalara da önemli girdiler sunmaktadır. Özellikle KOBİ'lerde zorunlu bağımsız denetimin hem makro hem de mikro düzeyde ekonomik olup olmadığı dünya genelinde tartışılmalı bir konudur. Ayrıca tartışmaya konu olan Halka Açık Olmayan KOBİ (HK-KOBİ) niteliğindeki şirketler, birçok ülke ekonomisinde önemli yer tutmaktadır. Nitekim Türkiye'de de HK-KOBİ'ler toplam girişimlerin %98'ini oluşturmaktadır.

Bu çalışmanın bağımsız denetim talebi ve zorunlu bağımsız denetim eksenlerindeki tartışmalar bağlamında araştırmacılara, kanun koyuculara, denetçilere ve şirketlere fayda sağlayacak bilgiler sunması beklenmektedir.

Literatürde farklı ülkelerde yürütülmüş bağımsız denetim talebi araştırmaları bulunmaktadır. Türkiye bağlamında ise daha önce bağımsız denetim talebini konu edinmiş çalışmanın olmaması bu çalışmanın en önemli motivasyonudur. Bu nedenle bu çalışma ile bağımsız denetim talebi literatürüne Türkiye örneğiyle katkı sunmak amaçlanmıştır.

ARAŞTIRMA STRATEJİSİ VE YÖNTEMİ

Çalışmada, elde edilen verilerin niteliği ve bu bağlamda öne sürülen hipotezler doğrultusunda, korelasyonel / deneysel olmayan araştırma tasarımına başvurulmuştur. Bu tasarımın öne çıkan yönü ise, analiz edilen verilere herhangi bir müdahalenin söz konusu olmamasıdır. Diğer bir ifadeyle, bu araştırma tasarımında ilgili olgulara/değişkenlere ilişkin veriler kendi doğal ortamında gerçekleşmiş olup, daha sonra aralarındaki ilişki analizlere konu edilmektedir.

Çalışma kapsamında Dünya Bankası'nın Girişim Araştırması (Enterprise Survey-ES) anketleriyle toplanan verilere başvurulmuştur. Söz konusu veriler kullanılarak, ilgili teoriler ve literatüre dayandırılan hipotezler istatistiksel analizler aracılığıyla test edilmiştir.

Çalışmada geliştirilen hipotezlerin test edilmesi için Spearman Korelasyon, Ki-Kare ve Lojistik Regresyon analizlerine başvurulmuştur.

BULGULAR VE TARTIŞMA

Hem çalışmanın metodolojisi açısından hem de verilerin niteliğine bağlı olarak net bir nedensellik çıkarımı yapılamamaktadır. Bu durum aynı zamanda çalışmanın önemli bir kısıtıdır. Bununla birlikte söz konusu anlamlı ilişkiler, nedensellik ilişkisinin de olabileceğine yönelik bir ön bilgi olarak kabul edilebilecektir. Diğer bir ifadeyle, bağımsız denetim talebini etkileme potansiyeli olan durumlar olarak yorumlanabilecektir. Yahut bağımsız denetimi talep eden şirketlerin karakteristik özellikleri şeklinde yorumlanması da uygun olacaktır. Bu bağlamda desteklenen hipotezlere ilişkin çıkarımlar aşağıdaki şekillerde ifade edilebilecektir.

- Bağımsız denetim talebi, görece daha büyük ölçekli şirketlerde daha yüksektir.
- Bağımsız denetim talebi en büyük ortağın nihai karar verici olduğu şirketlerde, olmayanlara göre daha düşüktür.
- Bağımsız denetim talebi kredi başvurusu olan şirketlerde, olmayanlara göre daha yüksektir.
- Bağımsız denetim talebi açık kredi hakkı olan şirketlerde, olmayanlara göre daha yüksektir.

- Bağımsız denetim talebi mahkemelik olmayı şirket faaliyetlerine engel olarak gören şirketlerde, görmeyen şirketlere göre daha yüksektir.
- Bağımsız denetim talebi Ar-Ge yatırımı olan şirketlerde, olmayan şirketlere göre daha yüksektir.
- Bağımsız denetim talebi uluslararası faaliyetleri bulunan şirketlerde, bulunmayan şirketlere göre daha yüksektir.

SONUÇ VE ÖNERİLER

Çalışmada yürütülen analizlerden elde edilen sonuçlar özetle ifade edilecek olursa; şirketlerin büyüklükleri, sahiplik yapıları, finansman ilişkileri, Ar-Ge yatırımları, yasal düzene ilişkin algıları ve uluslararasılaşma durumları ile bağımsız denetim talebi arasında anlamlı ilişkiler olduğuna ilişkin destekleyici kanıtlar elde edilmiştir.

Bu çalışma dahil olmak üzere literatürdeki bağımsız denetim talebi çalışmalarında nedensellik ilişkisinin kurulamamış olması, gelecek araştırmalarda dikkate alınması gereken bir araştırma boşluğu olarak öne çıkmaktadır. Bu bağlamda gelecek araştırmalar deneysel veya yarı deneysel tasarımlarla nedensellik ilişkileri ortaya koyarak alana önemli katkılar sunulabilecektir.

Çalışmanın diğer bir kısıtı da analizlerde ikincil veri kullanılmış olmaktan kaynaklanmaktadır. Kullanılan verilerin elde edildiği ES-Türkiye-2013 (Dünya Bankası), HK-KOBİ'lerde bağımsız denetim talebi araştırması için hem dönem açısından hem de ülke genelinden katılımcılar olmasından dolayı, değerli bir veri sunmaktadır. Ancak, geliştirilen hipotezler, literatüre ve teorilere bağlı kalınarak öne sürülmüş olsa da ES-Türkiye-2013'te bulunan verilerle sınırlı kalmıştır.

Gelecek araştırmalar birincil kaynaklardan yararlanarak yeni boyutların da bağımsız denetim talebiyle ilişkisini araştırabilecektir. Bu bağlamda şirketlerin sahiplik yapılarına ilişkin farklı boyutlar, yöneticilerin ve şirket sahiplerinin demografik özellikleri, müşteriler, kreditorler veya tedarikçilerle olan ilişkiler bağımsız denetim talebi araştırmalarında değerlendirilebilecek niteliktedir. Ayrıca şirketlerin halka açılma konusundaki düşünceleri de bağımsız denetim talebiyle yakından ilişkilendirilebilecek olup istatistiksel olarak test edilebilecektir.

Diğer taraftan, kâr amacı gütmeyen kuruluşlarda bağımsız denetim talebi, bağımsız denetim hizmeti almak istemeyen şirketlerin gerekçeleri veya daha önce hiç denetim hizmeti almamış olan şirketler ile tecrübesi olanların bağımsız denetime ilişkin maliyet fayda değerlendirmeleri gelecek araştırmaların konusu olabilecektir. Ayrıca literatürde yer bulan bağımsız denetim talebi çalışmalarının elde ettikleri istatistikler ile meta analiz çalışması da yapılabilecektir.

1. INTRODUCTION

Every country has a mandatory audit policy, each with its specific set of procedures and scopes. Several explanations have been suggested for the necessity of legal obligation. The most significant one is the protection of the public interest. In that, financial reports, once made public, become public goods and are of public interest. (Hay et al., 2014). In this regard, the extent to which companies concern the public interest is important in determining the scope of enforcement. Therefore, companies are at the forefront in terms of public interest. For instance, publicly listed firms or credit institutions are naturally prioritized.

In the context of public interest, company size is a criterion that is evaluated by regulators. There is a consensus and practice in most countries for the inclusion of large-scale companies in the scope of mandatory audits. However, different approaches and practices exist for SMEs. Mandatory auditing for SMEs is a controversial issue both practically and academically (Carey et al., 2013; Collis, 2007; EC, 2010, 2013, 2014b, 2014a; Fearnley et al., 2000; Kamarudin et al., 2012; Ojala et al., 2016; Salleh et al., 2008; Tabone & Baldacchino, 2003). The exemption of SMEs from mandatory audit has been the subject of research both in legal jurisdictions where all independent audits are mandatory for all companies regardless of their size (such as Malaysia), and in legal jurisdictions that have an exemption threshold application (such as the United Kingdom and European Union countries).

This controversial issue has also been on the agenda of the European Union for the last decade. The European Commission (EC) points out the cost and burden of auditing for SMEs in its reports. They argue that SMEs should be exempted from mandatory audits so as to provide an advantageous business environment to attract investment to the region (EC, 2013, 2014b). In line with this call, member countries exempt SMEs through specific criteria. Turkey also, as a candidate country for the union, has complied with this call. In this respect, SMEs in Turkey are exempted from mandatory auditing since 2013, unless they are covered by a criterion other than size.

Insufficient motivation that encourage companies to voluntarily publish reliable financial information with the public is another explanation for the necessity of mandatory auditing (Lennox & Pittman, 2011). However, companies may choose to procure audit services voluntarily, even though it is not mandated by law. The fact that companies procure audit services despite being exempted has created a remarkable research area in the form of audit demand. In this respect, many studies that try to reveal the characteristics of companies demanding auditing services exist in the literature, with samples from different legal systems.

There are studies that try to reveal the characteristics of companies demanding audit services with samples from different countries such as the USA, UK, Germany, Finland, Denmark, Belgium,

Australia, Malaysia, and Canada. However, in the literature, there is no audit demand study that specifically focuses on companies in Turkey.

The companies that stand out and are addressed in the audit demand studies are mainly SMEs or non-public companies that are exempted in most legal systems. In the context of Turkey, in order for SMEs to be exempt from auditing, they must not be open to the public.

This study contributes to the existing literature in several ways. First, the fact that the audit demand in non-public SMEs in Turkey has not been addressed earlier, indicates a research gap. It is expected to contribute to the audit demand literature with a sample from Turkey. Turkey distinguishes itself and stands out from other countries due to its unique historical path with audit regulations. Secondly, this study provides input information by presenting data and evidence to researchers in the discussions on the axis of mandatory audit and audit demand. The legislators also can benefit from the findings for the same issue. Thirdly, the study deals with the relationship between R&D investments, internationalization, and the perception of the legal system of the companies and audit demand, all of which, to the best of our knowledge, have not been investigated earlier in the literature. Fourthly, the study provides empirical contribution to theoretical perspectives. It provides new evidence for the impact of agency theory, signaling theory and information asymmetry on audit demand.

The remainder of this paper is set out as follows. Existing literature on audit demand is discussed and the hypotheses are developed in the next section. The following section describes the data and methodology. Then, empirical results are presented and discussed. The final section provides a summary and conclusion.

2. THEOROTICAL UNDERPINNINGS, LITERATURE AND HYPOTHESES

Agency theory is the most popular theoretical framework for explaining the demand for audit services (Duits, 2012). Agency theory, which is utilized in many disciplines, was introduced to the auditing field for the first time by Watts & Zimmerman (1983).

Jensen and Meckling (1976) conducted a groundbreaking study in which they viewed companies using the contract metaphor under the lens of agency theory. According to them, a company is regarded as a nexus of contracts under the agency theory. Theoretically, a contract establishing an agency relationship is that in which the principal appoints an agent to carry out a task on his behalf. The contract confers authority on the agent. (Jensen & Meckling, 1976).

In an agency relationship, the principal and the agent try to maximize their individual interests. Since this is the case, the agent, who has the authority, may act against the interests of the principal while attempting to maximize his own benefits, whether with good or ill intentions. In other words, while the

agent always prioritizes his own interests, he cannot maximize the interests of the principal at the same time (Wallace, 1980). The "Divergence of Interests" is how this circumstance is conceptualized.

Some key management tools come to the fore to control the agent's self-interested conduct as a result of the divergence (Bendickson et al., 2016). One of these management tools is auditing. From the viewpoint of the agency theory, auditing can reduce the problems that result from conflicting interests, which are also called agency conflicts.

Agency theory makes specific assumptions about information, people, and organizations in order to predict potential issues that could occur in agency relationships. According to the theory, information can be bought and sold, people are risk-averse, selfish, and partly rational beings. In organizations, there is information asymmetry between the agent and the principal so that the interests of the organizational stakeholders partially conflict. The theory's main goal is to identify the best contract for managing principal and agent interactions while taking these presumptions into consideration (Eisenhardt, 1989).

According to Power (1997), the need for auditing is directly related to information asymmetry, which is predicated on the notion that since individuals are inherently vulnerable and unreliable, there must be some controls. Asymmetric information is considered as a circumstance that amply justifies the demand for audits given its existence and inevitability. Indeed, asymmetric information is a core assumption of agency theory, which is highly related to the demand for auditing.

The same goes for signaling theory, which exclusively uses information asymmetry as a main assumption (Morris, 1987). To put it briefly, signaling theory is concerned with sending out signals in an environment of asymmetric information. Since financial reports are a vehicle for information exchange, it can be claimed that they attempt to lessen information asymmetry. This objective is achievable when the shared information is reliable. Auditing financial reports is a crucial step in ensuring this credibility. Procuring audit services voluntarily, in a situation where there is no legal requirement, will be seen as a positive sign by stakeholders regarding the validity and dependability of financial reporting. In other words, companies would demand auditing to send this signal and gain the trust of stakeholders.

These theories served as the foundation for the research hypotheses, which are listed below following the pertinent literature review.

There are many studies that try to reveal the characteristics of companies demanding auditing services, with samples from different countries (Table 1). The very first study on this subject was published in 1982 with a sample from the USA, and most studies were published with U.K. samples. There are also audit demand studies conducted in countries such as Germany, Finland, Denmark, Belgium, Netherlands, Australia, Vietnam, Malaysia, and Canada. In addition to these, there are a

limited number of studies on the demand for auditing in which cross-country comparisons are made (Briozzo & Albanese, 2020; Collis, 2010a; Diallo, 2021; Francis et al., 2011).

In Table 1, studies conducted to reveal the characteristics of companies that demand auditing services are presented.

Table 1. Audit Demand Studies

Authors	Publication Year	Data Year(s)	Country(ies)	Types of Companies Included in the Sample	Sample Size
Chee W. Chow	1982	1926	USA	Public Companies	165
Ahmed Rashad Abdel-Khalik	1993	-	USA	Non-Public Companies	134
Venancio Tauringana & Steve Clarke	2000	1996	UK	Non-Public Small Companies	92
Peter Carey, Roger Simnett, & George Tanewski	2000	1997	Australia	Non-Public Family Companies	186
Jean-Lin Seow	2001	-	UK	Private Small Companies	32
David W. Senkow, Morina D. Rennie, Richard D. Rennie & Jonathan W. Wong	2001	-	Canada	Large Private Companies	201
Jill Collis, Robin Jarvis & Len Skerratt	2004	1999	UK	Non-Public Small Companies	332
Jill Collis	2010	2004	UK, Denmark	Non-Public Small Companies	685
Jere R. Francis, Inder K. Khurana, Xiumin Martin & Raynolde Pereira	2011	1999-2000	62 Countries	Non-Public partnerships, sole proprietorships, and cooperatives	3826
Lasse Niemi, Juha Kinnunen, Hannu Ojala & Pontus Troberg	2012	2005	Finland	Non-Public Small Companies	412
Jill Collis	2012	2007	UK	Non-Public Small and Micro Companies	592
Hans Duits	2012	2010	Netherland	Non-Public SMEs	154
Diane Breesch, Kris Hardiesa, Jan De Muyldera	2012	2011	Belgium	-	288
Peter Carey & George Tanewski	2013	2012	Australia	Small And Medium Size Owner Managed Farm Companies	457
Mazlina Mustapha & Chia Hoh Yaen	2013	-	Malaysia	Sole Proprietors and Partnerships	62
Elisabeth Dedman, Asad Kausar & Clive Lennox	2014	2004-2006	UK	Non-Public Small Companies	6.274
Maarten Corten, Tensie Steijvers & Nadine Lybaert	2015	2003	Belgium	Non-Public Family Companies	482
Hannu Ojala, Mervi Niskanen, Jill Collis & Kati Pajunen	2016	2009-2012	Finland	Non-Public Micro Companies	50.000
Andreas Weik, Brigitte Eierle & Hannu Ojala	2018	2013	Germany	Non-Public Small Companies	405

One of the company-specific variables most frequently associated with audit demand in the literature is size. This relationship is argued mainly based on economies of scale and agency theory.

Within the framework of economies of scale theory, since the marginal cost of auditing in large companies will be lower than in small companies, it is predicted that audit demand will be associated positively with size (Chow, 1982). In other words, whether the benefit of the audit will exceed the cost is directly related to the size of the company. More concretely, the audit cost of any two companies, one of which has twice the size of the other, will not be exactly double (Duits, 2012). As a result, it is expected that auditing will be more attractive for large companies compared to small-scale ones, when viewed through the lens of economies of scale and the benefit-cost balance.

From the perspective of agency theory, employees can be seen as agents and managers as principals (Duits, 2012). The intensity of such agency relations creates the basis for agency problems (moral hazard and adverse selection). Chow (1982) states that more staff indicates more hierarchy and more layers of management, as well as a higher probability of loss of control. Abdel-Khalik (1993) states that if there is a long chain of command in the organizational structure, the structure becomes more complex, which means that the risk of loss of control is higher. He suggests that loss of control risk is also a situation that would explain audit demand and obtained supportive evidence. Also, Hay et al. (2006) interprets the positive and significant relationship they find between company complexity and audit fees in their meta-analysis study in the context of audit demand.

Size is considered in all studies investigating the demand for auditing. Hypotheses are formed and tested with the expectation that there will be a positive association between size and audit demand. Similarly, in this study, a positive relationship is expected between size and audit demand.

H1: There is a positive relationship between company size and audit demand.

Ownership structure is also considered to be a variable that shapes potential agency conflicts in the context of the separation of ownership and control (Jensen & Meckling, 1976). Ownership structure can be considered in many dimensions (Arosa et al., 2010) and can be accepted as an indicator of agency relations (Habib et al., 2019). One of these dimensions is ownership distribution. In other words, it is the density of the ownership structure relative to the share ratio of the largest partner. Shleifer & Vishny (1997), state that agency problems will decrease in companies with a concentrated ownership structure. Therefore, there is an expectation that the demand for audit will decrease in companies with a concentrated ownership structure. In this direction, hypothesis H2a has been proposed. Shleifer & Vishny (1997) also state that in companies with a concentrated ownership structure, large partners will have more authority and rights, and managers will have the power to control their activities. This situation points to potential agency problems between large partners and small partners, and it is expected that it will increase the demand for auditing. In this context, hypothesis H2b is put forward.

H2a: There is a negative relationship between concentration of ownership in a company and audit demand.

H2b: There is a positive relationship between the main decision maker in a company being the largest partner and audit demand.

The presence of foreign partnership in the ownership structure can be another indicator of agency relationships. Foreign partners need oversight mechanisms more than domestic partners. Furthermore, foreign partners may have some additional obligations in their relevant legal jurisdictions, unlike domestic partners. Also, they may not know the business environment of the region where the company

operates as well as the local partners. This leads to information asymmetry and agency conflicts between domestic and foreign partners (Habib et al., 2019; Pronobis & Schaeuble, 2022). Thus, there is an expectation that the presence of foreign partners will increase the demand for auditing services, which is a surveillance mechanism. Therefore, the proposed hypothesis is as follows.

H2c: There is a positive relationship between the presence of foreign partners in a company and audit demand.

Another important dimension associated with audit demand in the literature is a company's financing relationships. Non-public SMEs generally prefer credit institutions as a way of financing. The audit demand arising from financing relations is mostly explained by agency theory and signaling theory.

In terms of agency theory, the creditor is positioned as the principal and the company as the agent. In this agency relationship, companies may demand auditing to provide assurance (Collis, 2010b; Ojala et al., 2016), while the principal parties may also demand this assurance (Abdel-Khalik, 1993; Rennie et al., 2003; Senkow et al., 2001).

From the signaling theory point of view, companies may want to give an indication of their repayment power with audited financial reports to obtain credit (Haapamäki, 2018). In addition, voluntary auditing services also contribute positively to credit ratings (Lennox & Pittman, 2011). There is evidence that companies that voluntarily procure audit services obtain loans at lower costs (Blackwell et al., 1998; Kim et al., 2011; Minnis, 2011). In this context, it is predicted that demand for audit is higher in companies applying for loans.

H3a: There is a positive relationship between a company having applied for loans in the last financial period and audit demand.

Another notable indicator in the context of financing is overdraft facility. Overdrafts are the loans that customers can get from banks without any collateral. In this type of loan, the assurance is the reputation of the customer. In other words, it can be commented that a company with an overdraft facility has a high credibility in the eyes of creditors. In this respect, the existence of an overdraft facility can be interpreted as the lack or absence of agency conflicts between the company and the bank. Banks may require companies that demand overdraft facilities to have their financial reports audited. Or companies will be able to obtain overdraft facilities by using different assurance methods. In this case, companies may not need an audit. A negative or positive relationship cannot be determined between audit demand and overdraft rights.

H3b: There is a relationship between a company having overdraft rights and audit demand.

On the other hand, it is predicted that overdraft facility has a moderating role in the relationship between loan application and the demand for audit.

H3c: There is an association between demand for audit and coexistence of overdraft rights and loan application.

The relation between auditing and certain indicators related to the legal system at the level of countries is frequently set forth in the literature. Some examples are level of investor protection (Francis et al., 2003; Jaggi & Low, 2011; Newman et al., 2005), litigation risk (Khurana & Raman, 2004), corruption (Farooq & Shehata, 2018; Jeppesen, 2019) and legal origin (Iatridis, 2012). These dimensions are mainly addressed at the macro level. In this study, it is predicted that companies' perceptions of the legal system are related to audit demand. In this respect, it is expected that the likelihood of demanding auditing services will increase if the company sees courts as an obstacle in its business activities.

H4: There is a positive relationship between seeing the courts as an obstacle to business activities and audit demand.

It is suggested that financing and ownership structure that shape agency relationships in companies have the potential to affect R&D investments (Lee & O'Neill, 2003; Yoo & Rhee, 2013). It is also stated that the existence of R&D investments in a company is a factor that increases information asymmetry among stakeholders (Aboody & Lev, 2000; Godfrey & Hamilton, 2005). Godfrey & Hamilton (2005) state that compared to others, R&D investments are unique and difficult to identify. They find that companies with intensive R&D investments prefer auditors specialized in their sectors. The hypothesis developed in this study is that the demand for audit services will be higher in companies with R&D investments.

H5: There is a positive relationship between R&D investment and audit demand.

To carry out export transactions, companies must act in accordance with international regulations or obtain an international license. Such cases show that export-related activity in a company is an indicator for the degree of internationalization. These, in turn, increase uncertainty and complexity. Uncertainty and complexity also lead to information asymmetry and agency problems between stakeholders (Tsao et al., 2017). There is also evidence that companies, as they become more international, prefer large audit companies (Big N), which are accepted to provide higher quality audit services (Chen et al., 2017; Tsao et al., 2017). The hypothesis put forward is that there is a relationship between internationalization and the demand for auditing services.

H6: There is a positive relationship between internationalization and audit demand.

3. METHODOLOGY

3.1. Data and Sample

This study uses the data from the Enterprise Surveys (ES), which have been conducted by the World Bank in Turkey in 2013. ES-Turkey-2013 was collected by the quota sampling method (*Enterprise Surveys Indicators Data - World Bank Group, 2020*). The number of participants was determined by the ratios calculated by considering the industrial populations of the regions. Publicly traded (21 companies) and companies with 250 or more employees (127) were excluded in the analysis. 198 companies with missing data were similarly taken out of the sample. As a result, the total number of companies included in the analysis is 998. The elimination did not disturb the balance in regional distribution. The distribution of the companies in the final data set according to regions is given in Table 2.

Table 2. Distribution of the Sample by Geographic Regions

Geographic Regions	Frequency	Percent	Cumulative Percent
<i>Marmara</i>	284	28,5	28,5
<i>Aegean</i>	216	21,6	50,1
<i>Mediterranean</i>	138	13,8	63,9
<i>Central Anatolia</i>	166	16,6	80,6
<i>Black Sea</i>	109	10,9	91,5
<i>Eastern and Southeastern Anatolia</i>	85	8,5	100,0
Total	998	100,0	

Data on the sectors in which the companies operate are presented in Table 3.

Table 3. Sector Distribution of the Sample

Sector	Frequency	Percent	Cumulative Percent	Sector	Frequency	Percent	Cumulative Percent
<i>Food</i>	122	12,2	12,2	<i>Publishing, printing, and recorded media</i>	11	1,1	94,0
<i>Textiles</i>	117	11,7	23,9	<i>Motor vehicles</i>	10	1,0	95,0
<i>Garments</i>	117	11,7	35,7	<i>Basic metals</i>	7	0,7	95,7
<i>Chemicals</i>	116	11,6	47,3	<i>Tanning & leather</i>	7	0,7	96,4
<i>Fabricated metal products</i>	116	11,6	58,9	<i>Plastic & Rubber</i>	6	0,6	97,0
<i>Nonmetallic mineral products</i>	113	11,3	70,2	<i>Other transport equipment</i>	5	0,5	97,5
<i>Retail</i>	96	9,6	79,9	<i>Electronics</i>	5	0,5	98,0
<i>Construction</i>	31	3,1	83,0	<i>Supporting transport activities</i>	5	0,5	98,5
<i>Wholesale</i>	30	3,0	86,0	<i>Paper & paper products</i>	4	0,4	98,9
<i>Furniture</i>	26	2,6	88,6	<i>Transport</i>	4	0,4	99,3
<i>Machinery and equipment</i>	19	1,9	90,5	<i>Precision instruments</i>	3	0,3	99,6
<i>Services of motor vehicles</i>	12	1,2	91,7	<i>Information technology</i>	3	0,3	99,9
<i>Hotel and restaurants</i>	12	1,2	92,9	<i>Wood</i>	1	0,1	100,0
Total	998	100,0					

The distribution of the companies in the sample based on the number of employees is given in Table 4.

Table 4. Distribution of Sample Companies by Number of Employees

	Frequency	Percent	Cumulative Percent
(0-19)	467	46,8	46,8
(20-99)	397	39,8	86,6
(100-249)	134	13,4	100,0
Total	998	100,0	

3.2. Variables, Measurement and Model

Variables used in our statistical analysis, their abbreviations, measurements, ES codes, associated hypotheses and the expected direction of the relationships are summarized in Table 5.

One of the questions asked to owners or managers within the scope of ES is “In the last fiscal year, did this establishment have its annual financial statements checked and certified by an external auditor?” with the code "k21". The responses collected with this question can be accepted as an indicator of audit demand (Briozzo & Albanese, 2020; Diallo, 2021; Francis et al., 2011). However, the point to be noted here is that to be able to talk about voluntary audit demand, companies that address the relevant question should not be subject to mandatory auditing. In this respect, the time period of the collected data is important. For the same reason, Chow (1982), one of the leading researchers in the literature, tried to reveal the audit demand with this approach. Chow used the data of 1926 in his study conducted in 1982. Since the hypotheses put forward imply demand (voluntariness), he presented the necessity of using data from a period when auditing was not mandatory as a justification (Chow, 1982).

The question “In last fiscal year, did this establishment have its annual financial statements checked and certified by an external auditor?” in ES-Turkey-2013 indicates the period (2012) when independent auditing was not mandatory in non-public SMEs (companies included in the data set). In addition, since company size is a criterion for legal obligation, limiting the sample to companies with a maximum of 249 employees eliminates large companies for which independent audits are mandatory and hence better reveals the voluntary audit demand of smaller companies. Indeed, a criterion used for mandatory audits was the number of employees, which was determined to be 500 people in 2013 and 250 people in 2014.

As a result, the answers given to the k21 coded question are used to measure for audit demand, which is the output variable of the research model. Companies that answered yes to the question were coded as 1 and companies that answered no were coded as 0.

In literature, the most used indicators for the size variable are total assets, the number of employees, and total sales. Only the number of employees can be reliably obtained from ES-Turkey-2013. Therefore, the total number of employees was used for testing *H1*. Categorization of employee numbers

is used as it is in ES Data. The codes 1, 2 and 3 correspond to micro, small and medium, respectively, as subcategories of SMEs in terms of their sizes.

To test the **H2a** hypothesis, the approach of Thomsen & Pedersen (1998) is adopted in classifying concentration in ownership structure. According to this approach, companies with no shareholders having more than 20% ownership are considered as having a dispersed ownership structure, a dominant ownership structure if at least one partner has between 20% and 50% of the shares, and a concentrated ownership structure if one partner owns more than 50% of the shares.

The concentration of ownership is coded as 1 (dispersed), 2 (dominant) and 3 (concentrated).

For companies to carry out export transactions, they must act in accordance with international regulations or obtain an international license. Such cases show that export-related data is an indicator for internationalization. In this context, export data is preferred as a more appropriate indicator for internationalization at the company level in most studies, especially in SMEs (Deng & Zhang, 2018; Laufs & Schwens, 2014). To test hypothesis **H6**, companies that export directly or indirectly are coded as 1 and those that do not are coded as 0.

Each observation is coded as 0 and 1 to test the hypotheses **H2b**, **H2c**, **H3a**, **H3b**, **H3c**, **H4** and **H5**.

In order to control for any possible effects, dummy variables for “Industry and Region” are also added. Manufacturing companies are coded 1, since their transactions are more complex than others, whereas non-manufacturing companies are coded 0. Furthermore, the differences between the regions in terms of their economic development are expected to affect the companies’ convenience in accessing auditing services. In this respect the Marmara region stands out.

An overview of all variables can also be found in Table 5.

The independent variables other than SIZE and CONC (not defined yet! Define the first time used) in the research model are dummy variables. There are important advantages and logical aspects of using a number of dummy variables in the logistic regression model:

- Odd ratios of each variable can be calculated, understood, and interpreted more easily,
- Measuring the independent variables as dummy variables, like the dependent variable, is more consistent, and
- Using dummy variables to represent ranges or levels increases the likelihood of events, resulting in a stronger and more stable model.

Table 5. Information on Variables and Hypotheses

Variables	Measurement of Variables	ES Codes	Hypothesis	Expected Relationship Direction
AUDIT	If the company has its last annual financial statements checked and certified by an external auditor 1, otherwise 0.	k21	Independent Variable	
SIZE	Number of employees If 0-19 coded as 1, If 20-99 coded as 2 and If 100-249 coded as 3.	11	H1	+
CONC	Ownership percentage of the largest owner(s) %0-%20 coded as 1, %21-%50 coded as 2 and %51-%100 coded as 3.	b3	H2a	-
FOWN	If there is a foreign partner 1, otherwise 0.	b2b	H2c	+
LODM	If the largest owner is the main decision maker 1, otherwise 0.	ECAz13	H2b	+
AL	If company applied for any loans/lines of credit in last fiscal year 1, otherwise 0.	k16	H3a	+
OD	If company has an overdraft facility 1, otherwise 0.	k7	H3b	-+
AL _ OD	If there is an overdraft facility and applied for a loan/credit in the last fiscal year 1, otherwise 0.	k16*k7	H3c	-
COURT	If courts are seen as obstacles to company operations 1, otherwise 0.	h30	H4	+
RD	If the company has invested in R&D 1, otherwise 0.	h6	H5	+
INT	If the company has an export activity 1, otherwise 0.	d3b+d3c	H6	+
<i>Control Variables</i>				
SECT	If the company is in manufacturing sector 1, otherwise 0.	a0		
REGI	If company operates in Marmara region coded 1, otherwise 0.	a2		

Within the framework of the developed hypotheses, the research model to be tested statistically is as follows:

$$\text{AUDIT} = \beta_0 \text{ SIZE} + \beta_1 \text{ CONC} + \beta_2 \text{ LODM} + \beta_3 \text{ FOWN} + \beta_4 \text{ AL} + \beta_5 \text{ OD} + \beta_6 \text{ AL _ OD} + \beta_7 \text{ COURT} + \beta_8 \text{ RD} + \beta_9 \text{ INT} + \beta_{10} \text{ SECT} + \beta_{11} \text{ REGI} + \epsilon_i$$

4. EMPIRICAL RESULTS

To test the hypotheses put forward in the study, univariate, bivariate and multivariate analyses are used.

4.1. Univariate and Bivariate Analysis

Descriptive statistics for dependent and independent variables are presented in Table 6.

Table 6. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
AUDIT	998	0,00	1,00	0,4870	0,50008
SIZE	998	1,00	3,00	1,6663	0,70097
CONC	998	1,00	3,00	2,6583	0,49722
FOWN	998	0,00	1,00	0,7465	0,43524
LODM	998	0,00	1,00	0,0391	0,19388
AL	998	0,00	1,00	0,3727	0,48378
OD	998	0,00	1,00	0,6944	0,46090
AL_OD	998	0,00	1,00	0,3066	0,46132
COURT	998	0,00	1,00	0,2044	0,40347
RD	998	0,00	1,00	0,1363	0,34325
INT	998	0,00	1,00	0,4749	0,49962
SECT	998	0,00	1,00	0,8146	0,38879
REGI	998	0,00	1,00	0,2846	0,45144

In the dataset, the majority of companies (66.9%) have a concentrated ownership structure. Thus, the largest shareholders of these companies own more than 50% of the shares. Companies having a dispersed ownership structure make up only 1.1% of the sample. Simply expressed, the percentage of companies in where any owner owns more than 20% of the shares remains low. The ownership structure of 32% of companies are not concentrated or dispersed but dominated by large shareholders having between %21-%50 of total shares (Table 7).

Table 7. Frequency Analysis of Ownership Concentration and Sizes

Variable	1		2		3	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
SIZE	467	%46,8	397	%39,8	134	%13,4
CONC	11	%1,1	319	%32	668	%66,9

Since all the variables are categorical, Spearman Correlation analysis is used to test correlation. Correlation coefficients and significance levels are presented in Table 8.

Table 8. Correlation Matrix

	AUDIT	SIZE	CONC	FOWN	LODM	AL	OD	AL_OD	COURT	RD	INT	SECT	REGI
AUDIT	1	0,206**	0,044	-0,142**	0,104**	0,203*	0,133**	0,165**	0,157**	0,151**	0,197**	0,021	-0,099**
SIZE			-0,072**	-0,144**	0,078*	0,083*	0,190**	0,104**	0,201**	0,102**	0,313**	0,302**	-0,026
CONC				0,148**	-0,021	-0,029	-0,106**	-0,053	0,081*	-0,04	-0,064*	0,019	-0,047
LODM					-0,132**	-0,006	-0,068*	-0,011	0,052	0,086**	0,202**	0,003	-0,024
FOWN						-0,051	-0,132**	-0,072*	-0,099**	-0,084**	-0,156**	-0,059	0,138**
AL							0,215**	0,863**	0,056	0,092**	0,138**	0,000	0,060
OD								0,441**	0,185**	0,086**	0,021	0,042	-0,117**
AL_OD									0,062	0,072*	0,107**	-0,007	0,081*
COURT										0,023	0,170**	0,147**	-0,036
RD											0,119**	0,047	-0,166**
INT												0,252**	0,076*
SECT													-0,025
REGI													1

Significance levels: *** p<0,01, ** p<0,05;

Whether there is a multicollinearity problem or not is checked by correlation analysis. According to the results obtained, there is no high level of correlation between the independent variables that could indicate a multicollinearity problem. Additionally, all independent variables, except for the *CONC* variable, are significantly correlated with the dependent variable.

Chi-square analysis is performed to test the bilateral relations between the independent variables and the dependent variable, and the results are presented in Table 9.

According to the chi-square analysis outputs, there is no significant relationship between the dependent variable and *CONC* and *SECT* variables. The significant relationship between other categorical variables and the dependent variable is also supported by Chi-Square analysis. According to Pearson Chi-Square values, the strongest relationship is with *SIZE*. Similar results are found in the correlation analysis.

Table 9. Cross-Table of Variables and Chi-Square Analysis

	Non-Audited Companies	Audited Companies	Pearson Chi-Square (df)	Asymptotic Significance (2-sided)
SIZE 1	288	179	42,191 (2)	0,000
SIZE 2	178	219		
SIZE 3	46	88		
CONC 1	5	6	2,452 (2)	0,294
CONC 2	175	144		
CONC 3	332	336		
FOWN 0	502	457	10,698 (1)	0,001
FOWN 1	10	29		
LODM 0	99	154	20,100 (1)	0,000
LODM 1	413	332		
AL 0	370	256	40,928 (1)	0,000
AL 1	142	230		
OD 0	187	118	17,613 (1)	0,000
OD 1	325	368		
AL_OD 0	393	299	27,221 (1)	0,000
AL_OD 1	119	187		
COURT 0	439	355	24,716 (1)	0,000
COURT 1	73	131		
RD 0	468	394	22,632 (1)	0,000
RD 1	44	92		
INT 0	318	206	38,891 (1)	0,000
INT 1	194	280		
SECT 0	99	413	0,444 (1)	0,505
SECT 1	86	400		
REGI 0	344	370	9,797 (1)	0,002
REGI 1	168	116		

4.2. Multivariate Analysis

According to the results of the bivariate analysis, there are significant relationships between the dependent variable and those other than the *CONC* and *SECT* variables. The research model, in which all variables are included, is tested with logistic regression, which is one of the methods that allow multivariate analysis. The objective is to find out how the independent variables, with the *SECT* and *REGI* variables controlled for, explain the changes in the dependent variable. Statistics for logistic regression analysis are given in Table 10.

Table 10 also includes the results of the Hosmer-Lemeshow model goodness of fit test. According to the significance value (0.710), H_0 could not be rejected, in other words, the statistical model developed fits the data set.

The hypotheses and variables put forward are interpreted through the "odds ratio" statistics. "odds ratio" technically gives the ratio of the probability that an event will occur to the probability that it will not occur. In the context of the dependent variable of the study, this ratio can be expressed as the ratio of the probability of demanding the audit to the probability of not demanding it. One thing that needs to be emphasized here is that the data used represent the facts. In other words, "odds ratio" is interpreted as "the ratio of the probability that the audit was demanded to the probability that it was not demanded".

Significant statistical results are obtained regarding the relationship between audit demand and size. Accordingly, companies with 100 to 249 employees are 2.14 times more likely to demand an audit than the base company group (companies with 0-19 employees). Similarly, companies with 20 to 99 employees are 1.68 times more likely to demand audit services than companies with fewer employees. There is a significantly positive association between size and audit demand, which supports hypothesis *H1*.

The predicted relationship with concentration level of the ownership structure is partly supported. Although companies with a dominant ownership structure are less likely to demand audit services than companies with a concentrated ownership structure, it is not statistically significant. Companies with a dispersed ownership structure are 67% less likely to demand an audit than those with a concentrated ownership structure. However, only 11 of the 998 companies in the sample have a dispersed ownership structure. That is, most of the companies (98.9%) have concentrated and dominant ownership structures. The very unevenness of the distribution also prevents a clear inference regarding the proposed hypothesis. The results of the chi-square analysis also support this finding. In conclusion, supportive evidence for hypothesis *H2a* could not be obtained.

There is a negative and significant relationship between audit demand and the position of the largest partner as the main decision maker in a company. The likelihood of audit demand in companies where the largest partner is the main decision maker is 0.67 times lower than where he/she is not. Thus, the findings support hypothesis *H2b*.

A positive but insignificant relationship is found between the presence of foreign partners in a company and audit demand. For this reason, hypothesis *H2c* is statistically not supported.

The strongest statistically supported variable that affects audit demand is the *AL* variable, which shows whether companies have applied for a loan or not. Companies that have a loan application are

3.32 times more likely to demand an audit than those that have not. This finding strongly supports hypothesis *H3a*.

Table 10. Logistic Regression Results

Variable	Maximum Likelihood Estimates					Odds Ratio Estimates			
	df	Estimate	Standard error	Wald χ^2	Sig.	Versus	Odds Ratios	95% CI limits	
SIZE	2			15,592	,000				
SIZE-2	1	0,520	0,157	10,897	,001	<u>SIZE-1</u>	1,681	1,235	2,289
SIZE-3	1	0,759	0,231	10,809	,001	<u>SIZE-1</u>	2,136	1,359	3,357
CONC	2			6,789	,034				
CONC-2	1	-0,095	0,670	0,020	,888	<u>CONC-3</u>	,910	,245	3,386
CONC-1	1	-0,397	0,152	6,785	,009	<u>CONC-3</u>	,672	,499	,906
FOWN	1	0,752	0,406	3,421	,064	<u>N_FOWN</u>	2,120	,956	4,702
LODM	1	-0,400	0,165	5,875	,015	<u>N_LODM</u>	,670	,485	,926
AL	1	1,201	0,309	15,144	,000	<u>N_AL</u>	3,323	1,815	6,083
OD	1	0,404	0,191	4,465	,035	<u>N_OD</u>	1,499	1,030	2,181
AL_OD	1	-0,610	0,352	2,992	,084	<u>N_AL_OD</u>	,544	,272	1,085
COURT	1	0,458	0,180	6,469	,011	<u>N_COURT</u>	1,581	1,111	2,250
RD	1	0,563	0,211	7,109	,008	<u>N_RD</u>	1,755	1,161	2,655
INT	1	0,525	0,152	11,960	,001	<u>N_INT</u>	1,690	1,255	2,275
SECT	1	0,465	0,189	6,042	,014	<u>N_SECT</u>	1,592	1,099	2,306
REGI	1	0,380	0,161	5,546	,019	<u>N_REGI</u>	1,462	1,066	2,005
CONSTAN	1	-1,283	0,272	22,208	,000		0,277		
-2 log-likelihood			1230,346						
R² (Cox and Snell)			0,142						
R² (Nagelkerke)			0,189						
Hosmer and Lemeshow Test			Chi-square:		5,435				
			df:		8				
			Sig.:		0,710				

SIZE-1: 0-19 employees, SIZE-2: 20-99 employees, SIZE-3: 100-249 employees, CONC-1: Dispersed ownership structure (less than 20% ownership of the largest shareholder) CONC-2: Dominant ownership structure (the largest shareholder owns between 20%-50%), CONC-3: Concentrated ownership structure (the largest shareholder owns greater than 50%), N_FOWN: No foreign partner, N_LODM: largest owner is not the main decision maker, N_AL: No application for any loans/lines of credit in the past fiscal year, N_OD: No overdraft facility, N_AL_OD: No overdraft facility and no application for a loan/credit in the past fiscal year, N_COURT: courts are not seen as an obstacle to business operations, N_RD: No R&D Investment, N_INT: No export activities, N_SECT: Non-manufacturing, N_REGI: Other regions, excluding Marmara.

Another hypothesis put forward regarding financing relationships is whether there is an overdraft facility or not. A clear direction for this relationship could not be predicted. However, there is a positive and significant relationship between it and the dependent variable. According to the findings, companies with an overdraft facility are 1.50 times more likely to demand an audit than companies that do not.

We were unable to find any significant association between the interaction term (AL_OD) and the dependent variable. That means either AL or OD has no moderating effect on audit demand for each other. In conclusion, *H3c* is not statistically supported.

The expected relationship between perception of the legal system and audit demand is also statistically supported. Companies that see courts as an obstacle to business activities are 1.58 times more likely to demand audit services than companies that do not.

Companies with R&D investment are 1.76 times more likely to demand audit services than companies without. Therefore, hypothesis **H5** is also supported.

The last hypothesis put forward is about the relationship between internationalization and audit demand. According to the findings, companies with export activities are 1.69 times more likely to demand audit services than companies that are not. The predicted positive relationship (**H6**) between audit demand and internationalization is supported statistically.

The variables for region and sector were not the subjects of any developed hypotheses. For their potential instrumental effect, they are incorporated into the model. Bivariate analyses reveal no relationship between SECT and audit demand. However, in multivariate analysis, both variables have a positive relationship with audit demand, as expected. That is, being a manufacturing company and operating in the Marmara region are positively associated with audit demand.

5. DISCUSSION

The first hypothesis is about the relationship between size and audit demand. The predicted positive relationship has been supported in this study as well as many others (Abdel-Khalik, 1993; Carey & Tanewski, 2013; Chow, 1982; Collis, 2010a, 2012; Collis et al., 2004; Corten et al., 2015; Ha & Nguyen, 2020; Mustapha & Yaen, 2013; Tauringana & Clarke, 2000; Weik et al., 2018). However, there are also studies that do not find any relationship between size and audit demand (Carey et al., 2000; Senkow et al., 2001).

As indicators for ownership structures in non-public SMEs included in this study are the concentration in ownership structure, whether the largest partner is the main decision maker, and the presence of foreign partners. In their study, Ojala et al. (2016) predicted and provided evidence on a negative association between ownership concentration and audit demand. In this study, although there was such an expectation, significant statistical results could not be obtained. The point that should be considered here is that only 1.1% of the non-public SMEs in the sample are in the dispersed ownership structure category (Table 7). The results also show that the demand for auditing increases when the largest partner is the main decision maker in non-public SMEs. Additionally, there is not any association between the existence of foreign partners and audit demand in non-public SMEs.

After the ownership structure, the financing relationships come to the fore as the variable most frequently associated with the demand for auditing. Studies that provide supportive findings regarding the developed hypotheses are predominant (Carey et al., 2000; Carey & Tanewski, 2013; Corten et al., 2015; Tauringana & Clarke, 2000), but there are also studies (Dedman et al., 2014; Weik et al., 2018) that did not find any supportive results. As for the results of this study, the audit demand is higher in

non-public SMEs that have applied for loans in the past financial year. The results also show that non-public SMEs with overdraft facilities are more likely to demand auditing services. Additionally, either applying loan or having overdraft has no moderating effect on audit demand for each other.

The other hypotheses are unique to this study, which have not been suggested before in the literature to the best of our knowledge. The results show that non-public SMEs that see courts as an obstacle to business activities, invest in R&D, and carry out their activities internationally are more likely to demand auditing services.

6. SUMMARY AND CONCLUSION

The subject of audit demand has an important place in literature as a research area, with examples from different countries. The expression "different countries" also indicates different legal systems, different social-cultural structures, and different institutional approaches. All these differences are factors that can directly or indirectly shape the entire audit practice.

In addition to the factors that shape audit demand in companies at the macro level, there are also those that can affect them at the micro level. For this reason, it is worth investigating the differentiating characteristics of companies operating in the same country and demanding audit services compared to those that do not.

Uncovering these characteristics also provides valuable input in discussions about the scope of mandatory auditing. Whether mandatory auditing is economical at both macro and micro level, especially in small or medium-sized companies, is a matter of debate throughout the world. In addition, these companies have a significant place in many economies. Similarly in Turkey, SMEs constitute 98% of the total number of enterprises.

Although there are studies conducted in different countries, the most prominent motivation of this study is that there is no previous study on this subject in the context of Turkey. Therefore, this study aims to contribute to audit demand literature by using a sample from Turkey.

The results provide supportive evidence that there are significant associations between audit demand and size, ownership structure, financing relationships, R&D investment, perceptions of the legal system, and internationalization.

A clear causal inference cannot be made due to both the methodology used in the study and the nature of the data. This is a major limitation of the study. However, these meaningful relationships can be accepted as preliminary findings that there may be a causal relationship. In other words, they can be

interpreted as important variables that have the potential to affect audit demand. Or it would be appropriate to read it as the characteristics of companies that demand auditing services.

The inability to establish a causal relationship in audit demand studies in the literature, including this study, stands out as a research gap that should be considered in future research. It will be possible to make significant contributions to the field by revealing causal relationships with experimental or quasi-experimental designs.

Another limitation of the study is the use of secondary data. ES-Turkey-2013 provides valuable data for audit demand research in non-public SMEs, both in terms of the period and participants from across the country. However, although the hypotheses are developed by adhering to the literature and economic theories, they are limited to the data found in ES-Turkey-2013.

Future research can explore the relationship of new variables with audit demand by drawing on primary sources of data. In this regard, different new dimensions regarding ownership structures, demographic characteristics of managers and owners, relations with customers, creditors or suppliers can be evaluated in audit demand research. The intentions of companies to go public can also be closely related to audit demand.

In addition, audit demand in non-profit organizations and the reasons why companies do not want to procure audit services may also be the subject of future research. Lastly, audit demand studies in the literature have reached sufficient density to conduct meta-analysis.

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