

Fraud Symptoms Specific to Small and Medium-Sized Business (SMEs) and Research To Determine The Measures Taken: Gaziantep Case¹

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Abstract: The importance of Small and Medium-Sized Businesses (SMEs) is increasing as they provide various job opportunities in the countries in which they operate. These businesses may face problems related to the issues of management, organization, marketing, procurement, human resources management, production, finance, and accounting. One of the most critical accounting problems SMEs face is a fraud, which may be defined as intentional acts involving deception in accounting records or documents by those in charge of top management to obtain unfair or illegal employee benefits. The accuracy and integrity of accounting records are crucial for all stakeholders. In addition, fraud in accounting can affect employees, partners, business owners, and the government. Studies show that accounting fraud has reached dangerous levels. For this reason, it is essential to detect, prevent or eliminate fraud in SMEs and take deterrent measures against this problem. This study presented the results of a survey based on the owners or managers of SMEs operating in the Gaziantep Organized Industrial Zone to identify symptoms of SME fraud and the measures taken.

Keywords: Small and Medium-Sized Business, Fraud, Fraud Symptoms, Fraud Prevention

Jel Codes: M40, M41, M42

Küçük ve Orta Ölçekli İşletmelere (KOBİ) Özgü Hile Belirtileri ve Alınan Önlemlere İlişkin Bir Araştırma: Gaziantep Örneği

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Öz: Küçük ve orta ölçekli işletmeler (KOBİ), faaliyette buldukları ülkelerde çok sayıda iş imkânları sağladıkları için daha fazla önemli hale gelmektedirler. Bu işletmeler, faaliyet gösterdikleri ülkelerde, yönetim ve organizasyon, pazarlama, tedarik, insan kaynakları yönetimi, üretim, finansman ve muhasebe gibi konularda birçok sorunlarla karşılaşabilmektedirler. KOBİ'lerin muhasebe ile ilgili karşılaştıkları en önemli sorunlardan biri de hiledir. Hile ise üst yönetimden sorumlu olanların, çalışanların haksız veya yasalara aykırı bir menfaat elde etmek amacıyla muhasebe kayıtlarında veya belgelerinde yaptığı aldatma içeren kasıtlı eylemler olarak tanımlanmaktadır. Muhasebe bilgilerinin doğruluğu ve bütünlüğü tüm paydaşlar için çok önemlidir. Ayrıca, muhasebede hile, çalışanları, ortakları ve işletme sahiplerini etkilediği gibi devleti de etkileyebilmektedir. Yapılan araştırmalar, muhasebe hilelerinin ciddi boyutlara ulaştığını göstermektedir. Bu nedenle, KOBİ'lerde hilenin daha gerçekleşmeden önce tespit edilmesi, önlenmesi veya yok edilmesi ve konu ile ilgili caydırıcı önlemlerin alınması önem arz etmektedir. Bu çalışmada ise KOBİ'lere özgü hile belirtilerini ve alınan önlemleri tespit etmek amacıyla, Gaziantep Organize Sanayi Bölgesi'nde faaliyette bulunan KOBİ sahipleri veya yöneticileri üzerinde ankete dayalı yapılan araştırma sonuçlarına yer verilmiştir.

Anahtar Kelimeler: Küçük ve Orta Ölçekli İşletmeler, Hile, Hile Belirtileri, Hilelerin Önlenmesi.

Jel Kodları: M40, M41, M42

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1. Introduction

Examination of the literature on Small and Medium-Sized Businesses (SMEs) reveals that no common definition of SMEs has been developed to this day. The main reasons for the lack of a common definition of SMEs include the industrial structures, levels of development, and technological opportunities of countries or regions in countries (Küp, 2011, p. 45). Therefore, existing definitions of SMEs are mostly related to the field of economics rather than a legal definition (Çatal, 2007, p. 334).

Small and Medium Enterprises Development Organization of Turkey (KOSGEB) proposes the most well-known definition of SMEs and defines them as *“businesses employing from 1 to 250 workers in the manufacturing industry, where no more than 25% of the shares are in the hands of large businesses”*. In addition, SMEs are generally defined as *“businesses that have the same owner and manager at the same time, operate locally, are financed by their own resources, can make decisions quickly, work with low management expenses, and implement labor-intensive production.”*

The importance of SMEs in Turkey and other developing economies has been understood since the nineties (Çatal, 2007, p. 335). The increasing importance of SMEs is related to the fact that their place in the total number of businesses and total employment is enormous. SMEs have other benefits for the countries in which they operate. These benefits can be listed as follows (Çatal, 2007, p. 337; Erdem ve Duru, 2010, p.82; Küp, 2011, p.52):

SMEs are more flexible and more resilient to economic volatility than large businesses.

SMEs' specialization in a particular production area increases resource efficiency.

SMEs operate as a stabilizing factor in the income range.

SMEs have a crucial role in reducing the unemployment rate as they employ low-skilled workers and provide technical training to qualified workers.

Some of the decisions can be taken quickly in SMEs, which have a cheap production business as they operate at lower general management and operating costs.

SMEs support large businesses through the production of raw materials, adjuvant, and operating materials used by large businesses.

SMEs help to convert small savings into direct investments.

The relationships between employers and employees develop in a closer and more positive environment in SMEs.

Since SMEs spread across the country, they help to eliminate regional development disparities and prevent migration to large cities. Consequently, the role of these businesses in social life is just as important as their economic roles.

SMEs prevent the concentration of productive activities in the hands of a few large companies and contribute to increased competition through antitrust.

SMEs contribute to accelerating economic development by offering creative ideas.

Despite these above-mentioned benefits, SMEs may face various problems, including administrative, regulatory marketing and supply problems and other problems related to human resources management, production, finance, and accounting. Fraud is one of the most important accounting problems that SMEs experience.

This study will first provide general information about fraud, which is one of the most important accounting problems in SMEs, and then summarize existing findings on fraud. In the second step, the study will present the findings of a survey on the symptoms of fraud and the actions taken by SMEs operating in Gaziantep Organized Industrial Zone.

2. Defining the Concept of Fraud

Fraud is *“a plan, game, and intrigue prepared to deceive and mislead someone”*. The concept fraud is associated with corruption and deception. The Association of Certified Fraud Auditors (ACFE) in the United States defines fraud as *“improper use or misuse by an*

employee of the resources and assets of the business in which he works.” (Ataman and Aydın, 2017, p.1).

According to independent audit standards, fraud is defined as *“deliberate actions involving deception by management, senior management, one or more persons of employees or third parties to get illegal or unfair benefits”* (BDS 240, p. 9). The definition of fraud according to the field of accounting is *“arranging and falsifying the records, documents, and accounts of the enterprise by concealing the truth in order to provide certain advantages and provide information to mislead others”* (Anuk, 2015, p.55).

The Association of Certified Fraud Examiners (ACFE) classified businesses' fraud under three headings; Misuse of assets, distortion of financial statements, and corruption (Yazıcı, 2018, p. 844). The 2007 research of Price water house Coopers (PwC) on the crimes in global economy classified fraud under five headings, namely, misuse of assets, fraud in accounting, corruption, and bribery, money laundering and infringement of intellectual property rights (Yıldız and Derya-Baskan, 2014, p.3). Additionally, the company explained these crimes as follows (Çavuş, 2019):

1-Types of Employee Fraud:

- An employee may steal funds, items, fixed assets, or other assets belonging to the business or to a person for his own benefit.
- An employee may steal registered money from the businesses' treasury in different ways.
- An employee may steal businesses' funds before it was registered.
- An employee may place the same number of personal checks in the treasury for the money that he or she stole to protect against sudden audits.
- An employee may register the same number of fake buyers, which he will later delete from the records for the fake sales he made.
- An employee may steal commercial inventory for their personal use or to resell it later.
- An employee may provide various benefits (excessive discounts, priority in bids, etc.) to buyers and sellers versus the bribes they receive.

2-Types of Management Fraud:

- Management's promises in the form of bonuses or other incentives associated with achieving overly ambitious objectives for operating results, financial position or cash flow.
- Management's objectives to increase a businesses' share price or profits trend through unusually firm accounting practices.
- Management's commitment to fulfill expectations that appear from the point of view of analysts, creditors, and other third parties are overly ambitious or openly unrealistic.
- Management's use of inappropriate means to reduce its declared profits for reasons of tax.

3- Types of Investment Fraud:

- Pyramid fraud,
- Exchange fraud,
- International investment fraud,
- Ponzi fraud,
- Fraud of valuable items.
- Types of Sales Frauds:
 1. High prices for purchased products,
 2. Delivery of second-quality items or non-shipment of items even if the buyer has already paid for the items to be shipped.

4- Types of Customer Fraud:

Customers who show fraudulent behavior in situations that require financial expenses initially.

The general purposes of resorting to fraud in business accounting include the following (Yardımcıoğlu et al., 2014, p.178):

- Embezzlement confidentiality,
- Partners' desire to mislead each other,
- Lack of desire in the distribution of dividends,
- Cover up corruption,
- Desire to take advantage of undue incentives,
- Tax evasion.

3. Literature Review

Numerous studies have been conducted on the causes and consequences of accounting fraud. Some of these studies included the followings:

The study of Bayraktar (2007), entitled *"The History of the Accounting Frauds in Turkey"*, provided information on the history of accounting fraud transactions in Turkey, the methods used in fraud, and the purposes for which it was carried out. The study concluded that accounting scams in Turkey usually occur to make the business look better or worse than it is.

The study of Sengür (2010), entitled *"Occupational Fraud, Fraud Prevention, Regulations Related to Fraudulent Financial Reporting and a Survey"*, provided information on the most common types of fraud in independent audit and internal audit records of companies operating in Turkey. *"Disregard for disclosure of financial statements, recording of expenses and incomes at different periods and showing high profits for the period"* were identified as the most common types of fraud detected by independent auditors, whereas *"expense fraud, conflict of interest, and misuse of non-cash assets"* were the most common types of fraud identified by internal auditors.

The study conducted by Aytekin, Sezgin, and Yalçın (2015), entitled *"Practitioners' Approach to Errors and Fraud in Accounting and Fraud Indicators: The Case of Balıkesir"*, measured how often independent accountants and chartered accountants operating as both registered and independently in Balıkesir province of Turkey faced with fraud markers and to what extent they agreed on the statements about accounting errors and fraud occurring for various reasons. The study found a difference between gender, level of education, job title and the level of agreement on the statements about accounting errors and frauds.

The study of Doğan and Nazlı (2015), entitled *"An Investigation on The Determination of Business Managers' Responsibilities for Preventing the Accounting Errors and Frauds"*, identified business managers' responsibilities in detecting accounting errors and frauds and their roles in preventing these errors and frauds in their businesses. The study concluded that effective penalties, an effective internal control system and eliminating pressure, opportunities, and justification factors by managers can reduce the risk of error and accounting fraud.

The study of Özbirecikli and Öksüz (2016), entitled *"A Research Study on the Intentional Errors enabling Occupational Fraud and Abuse in Manufacturing Companies: The Case of Hatay"*, identified the types of fraud committed by employees and the reasons behind the inability of managers to prevent these types of fraud. The study concluded that uncontrolled work and activities allowed employees to engage in fraudulent transactions.

The study of Ataman and Aydın (2017), entitled *"A Study on Fraud Auditing and Determination of The Fraud by Auditors"*, examined types of frauds that causes significant losses and the methods to prevent fraud. The study found that the most common cause of employee fraud was financial pressure and that the most common types of fraud were corruption and fraud in invoices.

The study of Doğan, Gülçin, and Nazlı (2018), entitled *“A Research on the Levels of Professional Accountants’ Tendency towards Fraud”* identified the level of propensity for fraud by professional accountants in Turkey. The study found no relationship between gender, age, educational level, job title, years in profession and the propensity for fraud.

The study of Ömürbek and Durgunböcü (2018), entitled *“Investigation of Accounting Professionals’ Perceptions about Accounting Error and Frauds”* aimed to determine and evaluate the perceptions of accounting professionals about accounting errors, fraud and tax audit. The study found that the most common accounting frauds faced by professional accountants were “customers who wish to have a balance by showing their ability to pay in order to get a loan” and “customers who want them to resort to methods such as increasing costs or reducing revenue due to high tax”.

The study of Yaman (2019), entitled *“Fraud in Corporations, Relationship Between Fraud Perception and Ethical Understandings of Employees”*, searched for a correlation between employees' perceptions of fraud, ethical understanding, and demographic characteristics. The study found that gender and positions of the employees did not significantly differentiate the level of fraud and ethical perceptions whereas their age and level of education were effective.

The study of Doğan and Ceylan (2021), entitled *“Fraud Symptoms Specific to Family Businesses and Research to Determine the Measures Taken”* analyzed the opinions of 57 family businesses registered in Nigde about the signs of and the measures taken to prevent fraud. According to the study, the most significant symptoms of fraud were: 1) The person, who orders the product, receives it, and pays for it, is the same person; 2) the receivables, debts, collections, payments, and records of all this are the responsibility of one person; 3) in accounting transactions, settlement records are made in accounts receivable and debts from time to time; and, 4) abnormal increases in expenses and purchases are encountered from time to time. In addition, the following strategies were identified to prevent fraud in the family businesses: 1-Comparison of bank and accounting records, 2-Important points are monitored by cameras, 3-Records of returns and quality problems exist, 4-Inventory of cash and stock is done without notification.

4. The Purpose, Scope, Method, and Hypothesis of the Research

The main purpose of this research is to identify the views of SMEs operating in Gaziantep Organized Industrial Zone on the symptoms of fraud they may face and the measures they take to prevent fraud. Other aims of the study were:

- Identifying the demographic characteristics of owners or managers of SMEs,
- Identifying the number of employees in SMEs and the sectors in which SMEs operate,
- Identifying the extent to which owners and managers of the SMEs agreed with the statements about the symptoms of fraud.

- Identifying the extent to which owners and managers of the SMEs agreed with the statements about the detection and prevention of frauds.

The population consists of owners or managers of small and medium-sized businesses operating in Gaziantep Organized Industrial Zone (SMEs) in 2021. Survey method was used for data collection.

Although we made request to the Gaziantep Directorate of KOSGEB to obtain a list of SMEs operating in Gaziantep Organized Industrial Zone to conduct the survey, the relevant list was not submitted due to the Protection of Personal Information Act. Although we obtained a list from Gaziantep Chamber of Industry and Commerce, the list did not clearly state whether the companies in the list were SMEs. For all these reasons, surveys were distributed to SMEs that we identified during face-to-face interviews with the owners or senior managers of randomly selected businesses in Gaziantep Organized Industrial Zone. The questionnaire was distributed to 117 businesses in total.

The major problem encountered during the distribution of the questionnaire was that most SMEs owners or managers did not want to respond to the questionnaire due to the COVID-19 pandemic or the aim of the study, which was to identify fraud. SPSS (Statistical

Package for the Social Sciences) version 26.0 was used for data analysis. Frequency and percentage analyses were made separately for each question in the survey. Furthermore, Independent-Samples T Test and One-Way ANOVA Test were used to test hypotheses, which were the followings:

H1: There is a difference between gender and the level of agreement of SMEs owners or managers regarding the statements about the symptoms and prevention of fraud.

H2: There is a difference between age and the level of agreement of SMEs owners or managers regarding the statements about the symptoms and prevention of fraud.

H3: There is a difference between education levels and the level of agreement of SMEs owners or managers regarding the statements about the symptoms and prevention of fraud.

H4: There is a difference between marital status and the level of agreement of SMEs owners or managers regarding the statements about the symptoms and prevention of fraud.

H5: There is a difference between monthly income levels and the level of agreement of SMEs owners or managers regarding the statements about the symptoms and prevention of fraud.

H6: There is a difference between working years and the level of agreement of SMEs owners or managers regarding the statements about the symptoms and prevention of fraud.

H7: There is a difference between the number of employees in the SME and the level of agreement of SMEs owners or managers regarding the statements about the symptoms and prevention of fraud.

H8: There is a difference between the sector of SME and the level of agreement of SMEs owners or managers regarding the statements about the symptoms and prevention of fraud.

5. Findings

This part of the study analyzed findings of the research. Firstly, we provided information on the demographic characteristics of the participants and the characteristics of the SMEs. Next, the responses to the statements in the questionnaire were analyzed separately and the results were presented.

Table 1 presented demographic characteristics of the participants and general characteristics of the SMEs.

Table 1. Demographic Characteristics of the Participants and General Information about SMEs

Gender	Number	Percentage (%)
Female	19	16.2
Male	98	83.8
Ages	Number	Percentage (%)
25 and below	5	4.27
26-35 Years	17	14.53
36-45 Years	33	28.21
46-55 Years	44	37.61
56 and above	18	15.38
Educational Levels	Number	Percentage (%)
Secondary School or below	15	12.8
High school	26	22.2
Associate degree	18	15.4

Bachelor's Degree	38	32.5
Master's degree	14	12
PhD	6	5.1
Marital Status	Number	Percentage (%)
Married	88	75.2
Single	39	24.8
Monthly Income	Number	Percentage (%)
3.000,00 TL and lower	12	10.26
3.001,00 TL - 5.000,00 TL	32	27.35
5.001,00 TL and higher	73	62.39
Working Years	Number	Percentage (%)
0-5 Years	28	23.93
6-10 Years	33	28.21
11-15 Years	29	24.79
16-20 Years	13	11.11
21-25 Years	10	8.55
26 years and above	4	3.41
Number of Employees in SMEs	Number	Percentage (%)
1-100	30	25.64
101-200	34	29.06
201-300	31	26.50
301 and above	22	18.8
Sector of the SMEs	Number	Percentage (%)
Food	41	35.04
Textile	34	29.06
Shoe, Slippers, and Leather Products	21	17.95
Chemicals	8	6.84
Others	13	11.11

Accordingly, 16.2% of the owners or managers of SMEs were women whereas 83.8% were men. Besides, 4.27% of the participants were aged 25 years or below, 14.53% were aged 26-35 years, 28.21% were aged 36-45 years, 37.61% were aged 36-45 years, and 15.38% were aged 56 years or older. 12.8% of the participants were graduates or lower, 22.2% were graduates of secondary education, 15.4% had associate degree, 32.5% had bachelor's degree, 12% had master's degree and 5.1% had PhD degree. 75.2% of the participants were married and 24.8% were single. 10.26% of them earned a monthly income of 3,000 TL or lower, 27.35% had a monthly income between 3,000 to 5,000 TL and 62.39% had a monthly income of 5000 TL or more. Furthermore, 23.93% of them had a professional experience of 5 years or lower, 28.21% between 6-10 years, 24.79% between 11-25 years, 24.79% between 16-20 years, 8.55% between 21-25 years, and 3.41% had a professional life of 26 years or more. 23.93% of the participants have been working for the SME for 5 years or lower, 28.21% between 6-10 years, 24.79% between 11-25 years, 24.79% between 16-20 years, 8.55% between 21-25 years, and, 3.41% 26 years or more. The number of employees working for the SME was 1-100 for 25.64%, between 101-200 for 29.06%, 201-300 for 26.50% and 300 and above for 18.8% of the SMEs. Finally, 35.04% of the SMEs were in the food sector, 29.06% in the textile sector, 17.95% in the shoe, slipper, and leather production sector, 6.84% in the chemical sector, and 11.11% in other sectors.

Table 2 presented the level to which the participants agreed on the statements about fraud and the prevention of fraud.

Table 2. Distribution of SMEs Owners or Managers' Levels of agreement with the statements about Symptoms and Prevention of Fraud ²

STATEMENTS	(5)	(4)	(3)	(2)	(1)	AVERAGE
	Strongly Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Strongly Disagree	
In our business, only one person is responsible for all receivables, debts, collections, payments and all their records.	15 (12.8)	34 (29.1)	3 (2.6)	43 (36.8)	22 (18.8)	2.80
In our business, our accountant often works overtime outside of normal business hours, takes work home and continues to work on weekends.	6 (5.1)	28 (23.9)	3 (2.6)	59 (50.4)	21 (17.9)	2.47
In our business, our accountant loses invoices from time to time.	2 (1.7)	3 (2.6)	2 (1.7)	52 (44.4)	58 (49.6)	1.62
In our business, our accountant usually does not want to take time off and avoids vacation.	3 (2.6)	15 (12.8)	5 (4.3)	56 (47.9)	38 (32.5)	2.05
In our business, our accountant under normal circumstances would like to undertake some duties that are included in the job descriptions of other departments (such as contracts with buyers, sellers and banks, correspondence related to management).	2 (1.7)	17 (14.5)	5 (4.3)	53 (45.3)	40 (34.2)	2.04
In our business, our accountant usually chosen from among family members.	7 (6.0)	22 (18.8)	3 (2.6)	54 (46.2)	31 (26.5)	2.31
Our accountant does not keep up with the latest	4 (3.4)	20 (17.1)	10 (8.5)	44 (37.6)	39 (33.3)	2.19

²The survey used in the research was prepared by Zeki DOĞAN and Azime Hasret CEYLAN, based on the article titled "Fraud Symptoms Specific to Family Businesses and Research to Determine the Measures Taken"

developments in accounting.						
Periodic adjustments are made to receivables and payables in our business's accounting transactions.	8 (6.8)	48 (41.0)	18 (15.4)	29 (24.8)	14 (12.0)	3.05
In our business, the person who orders the material, receives the material and pays is the same person.	18 (15.4)	37 (31.6)	3 (2.6)	44 (37.6)	15 (12.8)	2.99
In our business, abnormal increases in items of expense and purchases are encountered from time to time.	14 (12.0)	45 (38.5)	14 (12.0)	34 (29.1)	10 (8.5)	3.16
In our business, files, documents and programs that have not been used for a long time are cleaned.	3 (2.6)	28 (23.9)	4 (3.4)	56 (47.9)	26 (22.2)	2.36
Our business frequently purchases high-level services.	12 (10.3)	20 (17.1)	15 (12.8)	46 (39.3)	24 (20.5)	2.57
In our business, it was observed that more than one payment was made to a seller on similar dates.	3 (2.6)	13 (11.1)	7 (6.0)	63 (53.8)	31 (26.5)	2.09
In our business, we encountered the situation of making payments to inappropriate and unreal persons.	2 (1.7)	27 (23.1)	3 (2.6)	54 (46.2)	31 (26.5)	2.27
The employees in our business are smart, talented and risk-taking people.	30 (25.6)	50 (42.7)	25 (21.4)	11 (9.4)	1 (0.9)	3.82
In our business, wider rights and influences are given to family members.	7 (6.0)	36 (30.8)	3 (2.6)	47 (40.2)	24 (20.5)	2.61
In our business, sudden inspections are applied.	31 (26.5)	60 (51.3)	10 (8.5)	13 (11.1)	3 (2.6)	3.88
In our business, cash and stock counting and controls are implemented without warning.	35 (29.9)	63 (53.8)	3 (2.6)	13 (11.1)	3 (2.6)	3.97

In our business, important points are monitored with cameras.	84 (71.8)	24 (20.5)	5 (4.3)	2 (1.7)	2 (1.7)	4.58
In our business, bank records and accounting records are compared.	62 (53.0)	44 (37.6)	7 (6.0)	4 (3.4)	0 (0.0)	4.40
In our business, there are records for returns and quality problems.	21 (17.9)	67 (57.3)	8 (6.8)	10 (8.5)	11 (9.4)	3.65
In our business, meetings are held regularly.	27 (23.1)	68 (58.1)	11 (9.4)	8 (6.8)	3 (2.6)	3.92
While making decisions in the business, family and non-family managers make decisions together.	11 (9.4)	65 (55.6)	5 (4.3)	28 (23.9)	8 (6.8)	3.36
I have sufficient level of knowledge about accounting frauds in businesses.	20 (17.1)	41 (35.0)	19 (16.2)	29 (24.8)	8 (6.8)	3.30
The person who commits accounting fraud only thinks about his own benefit.	54 (46.2)	43 (36.8)	16 (13.7)	2 (1.7)	2 (1.7)	4.23
The person who cheats in accounting thinks he is an honest person.	49 (41.9)	40 (34.2)	18 (15.4)	6 (5.1)	4 (3.4)	4.05
Employees who commit fraud do not need to be punished.	1 (0.9)	2 (1.7)	6 (5.1)	36 (30.8)	72 (61.5)	1.49

(Averages calculated were evaluated as 4.25-5 Strongly Agree, 3.25-4.24 Somewhat Agree, 2.25-3.24 Neither Agree nor Disagree, 1.25-2.24 Somewhat Disagree, 1.24 Strongly Disagree).

As shown in table 2, the opinions of the owners or managers of SMEs on the statements about the symptoms of fraud and prevention of fraud were as follows:

For the statement “One person is responsible for all receivables, debts, collections, payments and records of all this in our business.” (average 2.80) “Neither Agree nor Disagree”,

For the statement “In our business, our employee responsible for accounting often works extra hours outside normal working hours, takes work home and continues to work on weekends.” (average 2.47) “Neither Agree nor Disagree”,

For the statement “In our business, our employee responsible for accounting loses invoices from time to time.” (average 1.62) “Somewhat Disagree”,

For the statement “In our business, our employee responsible for accounting generally does not want to take time off and avoids going on holiday.” (average 2.05) “Somewhat Disagree”,

For the statement “In our business, our employee responsible for accounting under normal circumstances usually wants to perform a number of tasks that are included in the job description of other departments (such as contracts with buyers, sellers and banks and correspondence related to management.” (average 2.04) “Somewhat Disagree”,

For the statement “In our business, our employee responsible for accounting is generally selected from among the family members.” (average 2.31) “Neither Agree nor Disagree”,

For the statement *"In our business, our employee responsible for accounting does not adequately follow the latest developments in accounting matters."* (average 2.19) *"Somewhat Disagree"*,

For the statement *"In the accounting transactions of our business, adjusting entries are made in debits and credits from time to time."* (average 3.05) *"Neither Agree nor Disagree"*,

For the statement *"In our business, the person who orders the material, receives the material and makes the payment is the same person."* (average 2.99) *"Neither Agree nor Disagree"*,

For the statement *"In our business, abnormal increases in expenses items and purchases are encountered from time to time."* (average 3.16) *"Neither Agree nor Disagree"*,

For the statement *"In our business, files, documents and programs that have not been used for a long time are cleaned."* (average 2.36) *"Neither Agree nor Disagree"*,

For the statement *"Our business frequently purchases high-level services."* (average 2.57) *"Neither Agree nor Disagree"*,

For the statement *"In our business, it was found that more than one payment was made to the seller on similar dates."* (average 2.09) *"Somewhat Disagree"*,

For the statement *"In our business, the case of making payments to inappropriate and unreal people has been encountered."* (average 2.27) *"Neither Agree nor Disagree"*,

For the statement *"The employees in our business are smart and talented people who like to take risks."* (average 3.82) *"Somewhat Agree"*,

For the statement *"Wider rights and powers are granted to family members of the business."* (average 2.61) *"Neither Agree nor Disagree"*,

For the statement *"In our business, sudden inspections are applied."* (average 3.88) *"Somewhat Agree"*,

For the statement *"In our business, inventories, cash counts and controls are conducted without warning."* (average 3.97) *"Somewhat Agree"*,

For the statement *"In our business, important points are monitored by cameras."* (average 4.58) *"Strongly Agree"*,

For the statement *"In our business, bank and accounting records are compared."* (average 4.40) *"Strongly Agree"*,

For the statement *"In our business, there are records of return and quality problems."* (average 3.65) *"Somewhat Agree"*,

For the statement *"In our business, meetings are held regularly."* (average 3.92) *"Somewhat Agree"*,

For the statement *"While making decisions in the business, family and non-family managers make decisions together."* (average 3.36) *"Somewhat Agree"*,

For the statement *"I have sufficient level of knowledge about accounting frauds in businesses."* (average 3.30) *"Somewhat Agree"*,

For the statement *"The person who commits accounting fraud only thinks about his own benefit."* (Average 4.23) *"Somewhat Agree"*,

For the statement *"The person who cheats in accounting thinks he is an honest person."* (Average 4.05) *"Somewhat Agree"*,

For the statement *"Employees who commit fraud do not need to be punished."* (Average 1.49) *"Somewhat Disagree"*.

The analysis of the findings on the symptoms of fraud may be summarized as follows:

In the SMEs, one person is responsible for all receivables, debts, collections, payments, and records of all this,

In the SMEs, employee responsible for accounting works extra hours outside normal working hours, takes work home and continues to work on weekends,

In the SMEs, employee responsible for accounting loses invoices from time to time,

In the SMEs, employee responsible for accounting generally does not want to take time off and avoids going on holiday,

In the SMEs, employee responsible for accounting under normal circumstances wants to perform several tasks that are included in the job description of other

departments (such as contracts with buyers, sellers and banks and correspondence related to management), which could be considered as symptoms of fraud, did not exist in SMEs involved in the research.

In addition, the following have been identified to prevent fraud in the SMEs involved in the research:

3. Important points are monitored by cameras,
4. Bank and accounting records are compared,
5. Meetings are held regularly,
6. Inventories, cash counts and controls are conducted without warning,
7. Sudden inspections are applied,
8. There are records of return and quality problems,
9. While making decisions at the company, managers from the family and managers from outside the family make decisions together.

Hypotheses on the relationship between the opinions of participants on the statements about symptoms and prevention of fraud and sociodemographic characteristics of participants (gender, age, educational level, marital status, monthly income level, working years) or the characteristics of the SMEs (number of employees in SMEs and sectors in which SMEs operate) have been tested using Independent-Samples T Test and One-Way ANOVA Test. Tables 3 and 4 presented the findings.

Table 3. Change in Levels of agreement with the Statements on Symptoms and Prevention of Fraud according to the Demographic Characteristics of Owners or Managers of SMEs

		N	Average	Standard Deviation	F	P
Gender	Female	19	3.12	0.40	8.87	0.038
	Male	98	2.99	0.19		
Age	25 and Under	5	3.00	0.15	0.449	0.772
	26-35 Years	17	2.96	0.21		
	36-45 Years	33	3.05	0.28		
	46-55 Years	44	2.99	0.23		
	56 and + Years	18	3.02	0.25		
Educational Levels	Secondary School or below	15	3.04	0.27	0.560	0.730
	High School	26	2.97	0.17		
	Associate Degree	18	3.07	0.38		
	Bachelor's Degree	38	2.98	0.22		
	Master	14	3.04	0.18		
Marital Status	Married	88	2.99	0.21	0.956	0.107
	Single	29	3.07	0.31		
Monthly Income	3.000 TL and Less	12	2.93	0.27	0.958	0.386
	3.001 TL - 5.000 TL	32	3.04	0.32		
	5.001 TL and +	73	3.01	0.19		
Working Years	5 Years and Less	28	2.98	0.35	0.310	0.905
	6-10 Years	33	3.02	0.15		
	11-15 Years	29	2.98	0.18		
	16-20 Years	13	3.05	0.29		
	21-25 Years	10	3.07	0.20		
	26 Years and +	4	3.02	0.40		
Number of Employees in SMEs	1 - 100	30	2.97	0.21	5.660	0.001
	101 - 200	34	2.99	0.22		
	201 - 300	31	2.94	0.17		
	301 and +	22	3.19	0.32		

Sector of SMEs	Food	41	2.98	0.22	1.775	0.138
	Textile	34	2.96	0.22		
	Shoes, Slippers and Leather Products	21	3.05	0.33		
	Chemicals	8	3.18	0.19		
	Other	13	3.06	0.18		

Table 4. Change in Levels of agreement with the Statements on Symptoms and Prevention of Fraud according to the characteristics of SMEs.

		N	Average	Standard Deviation	F	P
Number of Employees in SMEs	1 - 100	30	2.97	0.21	5.660	0.001
	101 - 200	34	2.99	0.22		
	201 - 300	31	2.94	0.17		
	301 and +	22	3.19	0.32		
Sector of SMEs	Food	41	2.98	0.22	1.775	0.138
	Textile	34	2.96	0.22		
	Shoes, Slippers and Leather Products	21	3.05	0.33		
	Chemicals	8	3.18	0.19		
	Other	13	3.06	0.18		

Average scores obtained from Independent-Samples T Test analysis, which was used to determine whether there was a difference between the gender of the owners or managers of SMEs and their level of agreement with statements on symptoms and prevention of fraud, were 3.12 for women and 2.99 for male participants. Since the value of P: 0.038 was $p < 0.05$, **there was a statistically significant difference** in the level of agreement with the statements on fraud symptoms and prevention **by their gender**. Therefore, the **H1 hypothesis has been accepted**.

Average scores obtained from One-Way ANOVA analysis, which was used to determine whether there was a difference between the age of the owners or managers of SMEs and their level of agreement with statements on symptoms and prevention of fraud, was 3.00 for those aged 0-25, 2.96 for those aged 26-35, 3.05 for those aged 36-45, 2.99 for those aged 46-55, and 3.02 for those aged 56 and above. Since the value of $F=0.449$ and $p=0.772$ were $p > 0.05$, **there was no statistically significant difference** in level of agreement with the statements on fraud symptoms and prevention **by their age**. Therefore, **H2 hypothesis has been rejected**. Generally, experienced people may resort to more fraud. However, the lack of difference here can be attributed to participants' level of knowledge.

Average scores obtained from One-Way ANOVA analysis, which was used to determine whether there was a difference between the education levels of the owners or managers of SMEs and their level of agreement with statements on symptoms and prevention of fraud, were 3.04 for graduates of secondary school or below, 2.97 for graduates of high school, 2.98 for the participants with associate degree, 3.07 for the participants with bachelor's degree, 2.98 for the participants with master degree, and 3.04 for the participants with PhD degree. Since the value of $F= 0.730$ and $p= 0.730$ were $p > 0.05$, **there was no statistically significant difference** in level of agreement with statements on fraud symptoms and prevention **by their educational levels**. Therefore, **H3 hypothesis has been rejected**. In previous research, it has been determined that the risk of fraud increases whenever the level of education increases. Nevertheless, the reason that there is

no difference in this study may be that people with low educational levels have long work experience.

Average scores obtained by Independent-Samples T Test analysis, which was used to determine whether there was a difference between marital status of the owners or managers of SMEs and their level of agreement with statements on symptoms and prevention of fraud, were 2.99 for married owners or managers and 3.07 for single owners or managers of SMEs. Since the value of $P=0.107$ was $p>0,05$, **there was no statistically significant difference** in level of agreement with statements on fraud symptoms and prevention **by their marital status**. Therefore, **H4 hypothesis has been rejected**. According to the study, married couples are more likely to make fraud more than single couples. However, the reason that there was no difference in this study may be that most participants in the questionnaire were married.

Average scores obtained from One-Way ANOVA analysis, which was used to determine whether there was a difference between monthly income of the owners or managers of SMEs and their level of agreement with statements on symptoms and prevention of fraud, were 2.93 for those with a monthly income level of 3.000 TL and less, 3.04 for those with a monthly income of 3.001 TL and 5.000 TL, and 3.01 for those with 5.001 TL and more. Since the value of $F= 0.958$ and $p=0.386$ were $p>0,05$, **there was no statistically significant difference** in level of agreement with statements on fraud symptoms and prevention **by their monthly income levels**. Therefore, **H5 hypothesis has been rejected**.

Average scores obtained from One-Way ANOVA analysis, which was used to determine whether there was a difference between working years of the owners or managers of SMEs and their level of agreement with statements on symptoms and prevention of fraud, were 2.98 for those with 0-5 years of work, 3.02 for those with 6-10 years, 2.98 for those with 11-15 years, 3.05 for those with 16-20 years, 3.07 for those with 21-25 years and 3.02 for those 26 years and above. Since the value of $F= 0.310$ and $p=0.905$ were $p>0,05$, **there was no statistically significant difference** in level of agreement with statements on fraud symptoms and prevention **by their working years**. therefore, **H6 hypothesis has been rejected**.

Average scores obtained from One-Way ANOVA analysis, which was used to determine whether there was a difference between the number of employees in the SMEs and the level of agreement with statements on symptoms and prevention of fraud, were 2.97 for SMEs with 1-100 employees and 2.99 for those with 101-200 employees, 2.94 for those with 201-300 employees and 3.19 for the SMEs with 301 employees and more. Since the value of $F= 5.660$ and $P=0.001$ were $p>0,05$, **there was a statistically significant difference** in level of agreement with statements on fraud symptoms and prevention **by number of employees** of the SMEs. Therefore, **H7 hypothesis has been accepted**.

Average scores obtained from One-Way ANOVA analysis, which was used to determine whether there was a difference between the sector of the SMEs and the level of agreement with statements on symptoms and prevention of fraud, were 2.98 for the SMEs operating in the food sector, 2.96 for the SMEs operating in the textile sector, 3.05 for the SMEs operating in the footwear, slippers and leather production sectors, 3.18 for the SMEs operating in the chemical sector and 3.06 for the SMEs operating in other sectors. Since the value of $F= 1.775$ and $P=0.138$ were $p>0,05$, **there was no statistically significant difference** in level of agreement with statements on fraud symptoms and prevention **by the sector of SMEs**. Therefore, **H8 hypothesis has been rejected**.

6. Results and Suggestions

As a result of this research, which based on a survey of SMEs operating in Gaziantep Organized Industrial Zone, the following symptoms of fraud were not evident in our case:

- Only one person is responsible for all receivables, debts, collections, payments, and records.

- Employee responsible for accounting often works extra hours outside normal working hours, take work home and continues to work on weekends,
- Employee responsible for accounting loses invoices from time to time,
- Employee responsible for accounting generally does not want to take time off and avoids going on holiday,
- Employee responsible for accounting under normal circumstances wants to perform several tasks that are included in the job description of other departments (such as contracts with buyers, sellers and banks and correspondence related to management).

This was due to the fact that the respondents expressed that they gave the *neither Agree Nor Disagree* response to these statements rather than *Strongly Agree* or *Somewhat Agree* responses. In addition, to prevent fraud, the followings have been identified in the SMEs involved in the research:

- Important points are monitored by cameras,
- Bank and accounting records are compared,
- Meetings are held regularly,
- Inventories, cash counts and controls are conducted without warning,
- Sudden inspections are applied,
- There are records of return and quality problems,
- While making decisions at the company, managers from the family and managers from outside the family make decisions together.

However, tests Independent-Samples T Test and One-Way ANOVA were used to test hypotheses created around research. As a result of analysis of tests, it has been determined that.

- **There is a statistically significant difference** in level of agreement with statements on fraud symptoms and fraud prevention by their **gender** of SMEs owners or managers,
- **There is no statistically significant difference** in level of agreement with statements on fraud symptoms and fraud prevention by **age, educational levels, marital status, monthly income levels and working years** of SMEs owners or managers,
- **There is a statistically significant difference** in level of agreement with statements on fraud symptoms and fraud prevention by **number of employees** of SMEs owners or managers,
- **There is no statistically significant difference** in level of agreement with statements on fraud symptoms and fraud prevention by **sectors in which SMEs operate** of SMEs owners or managers.

Data obtained because of this research cannot be generalized since the results of this research were restricted to the SMEs operating in Gaziantep Organized Industrial Zone. In addition, Comparison of these results with those obtained using the same questionnaire on family businesses³ operating in Niğde reveals that there were some significant differences despite similarities in fraud prevention. Therefore, we recommend that this research be carried out on SMEs throughout Turkey to generalize of the results obtained.

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³For detailed information you can review the article "DOĞAN, Zeki and Azime Hasret CEYLAN (2021), "Fraud Symptoms Specific to Family Businesses and Research to Determine the Measures Taken"

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