



**An-Najah National University  
Faculty of Graduate Studies**

**CORPORATE SUSTAINABLE GROWTH AS  
A MEDIATOR OF THE EFFECT OF CEO'S  
CHARACTERISTICS ON SHARE PRICES:  
EVIDENCE FROM AN EMERGING ECONOMY**

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**This Thesis is submitted in Partial Fulfillment of the Requirements for the Degree  
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Nablus, Palestine.**

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## الإهداء

إلى القلوب المعطاءة التي قدّمت لي الحياة بكّد اليمين وعرق الجبين ومنحتني الغالي والنفيس:

سندي الذي لم يَمَل في الحياة حين أطلت عليّ بشئى ألوانها إلى أمني ومأمني وفخري واعتزازي

أبي العزيز

الأيادي البيضاء التي ضمّت قلبي وحفّفت عنه وطأة الأيام، وأنارت لي طريقي ببركة دعائها

أمي العزيزة

وإلى أشقاء الروح، مهجة القلب وزُفقاء الدرب

إخوتي وأخواتي الأعزاء

إلى شريك الحياة و داعمي خطيبي العزيز

إلى من مرّ من هنا سالكاً طريقه لطلب العلم وإلى كل من علّمني حرفاً وكان لي عوناً

إلى كل من تمنى لي الخير والتّوفيق والسّداد

إلى من شاركني درب العلم ببلوه ومره صديقتي د. ضحى ربابعة

أهدي ثمرة جهودى البحثية الأولى

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## **Declaration**

I, the undersigned, declare that I submitted the thesis entitled:

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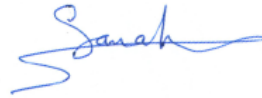
I declare that the work provided in this thesis, unless otherwise referenced, is the researcher's own work, and has not been submitted elsewhere for any other degree or qualification.

**Student's Name**

**Samah Ghassan Abdalhamid Qarmash**

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**09/03/2024**

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# **CORPORATE SUSTAINABLE GROWTH AS A MEDIATOR OF THE EFFECT OF CEO'S CHARACTERISTICS ON SHARE PRICES: EVIDENCE FROM AN EMERGING ECONOMY**

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## **Abstract**

This study aimed to capture the impact of chief executive officers' characteristics on a company's share price, and to explore whether the sustainable growth rate (SGR) mediates the relationship between CEO characteristics and share price using a combination of upper echelons theory, signaling theory, and agency theory. CEO characteristics included in this study are CEO education, experience, turnover, and age. This study employed a quantitative approach. The research sample consisted of 43 industrial corporations; 11 of them are listed on the Palestine Stock Exchange (PEX) and 32 are listed on the Amman Stock Exchange (ASE) over the period 2016–2022, resulting in 301 observations. The data was analyzed using multivariate regression analysis, to examine the direct relationship hypotheses. Moreover, for testing the mediating role of the SGR hypothesis, the casual steps method and a Sobel test were applied. The study found a significant relationship between CEO characteristics and share price, where CEO age has a significant and negative association with share price, while CEO education, experience and turnover had an insignificant relationship. The study found a significant relationship between CEO characteristics and SGR, Regarding the Sobel test results, the study found that SGR's mediating role in the relationship between CEO education, turnover, age, and share price is insignificant. It was also found that SGR only diminishes the strength of the relationship between CEO experience and share price. Regarding the control variables, firm size and leverage had a negative association with share price, while firm age had a positive relationship with share price. This study provides an important contribution to explaining the causal relationship between CEO characteristics and share price, as only a few scholars have discussed possible mediator variables that can transmit the impact of CEO characteristics on share price and that can better explain how these two variables are related. The study assists investors and regulators in Palestine and Jordan in their investment decisions by considering the impact of CEO attributes on firm

strategies and share prices, thus improving firms' value. The study's limitations include excluding other sectors and requiring larger samples. And the researcher recommends examining other CEO attributes, other mediating variables, and top management team characteristics in future research.

**Keywords:** Chief executive officer's characteristics, sustainable growth rate, share price, Palestine Stock Exchange, Amman Stock Exchange, emerging economy.

# **Chapter One**

## **General Framework**

This chapter explains the research problem, questions, importance, objectives, literature review, and theoretical background. Furthermore, it includes hypothesis development based on the literature that clarifies and explains research variables' relationships and discusses theories involved with them. This includes variable concept clarifications.

### **1.1 Introduction**

Following accounting fraud scandals and the global financial crisis in 2008, chief executive officers (CEO) attributes and involvement in companies' failures have been thoroughly documented (Troy et al., 2011). Research has predominantly centered on corporate governance, in which numerous studies indicate that it typically exerts a positive influence on firm performance, thereby playing a role in the overall economic development of nations (Skare and Hasić, 2016). The majority of these studies emphasize the significance of the characteristics of the board of directors in influencing a company's performance (Assenga et al., 2018). However, it is noteworthy that the primary functions of these boards extend beyond performance evaluation to encompass critical tasks such as recruiting, overseeing, retaining, evaluating, and compensating the CEO, who holds the highest-ranking position within the firm (Abernethy et al., 2019).

CEOs are accountable to the board for the performance of all of their responsibilities, including the company's management, developing and implementing business plans, long-term strategies, and budgets. Companies' CEOs should keep the board informed of all events that may have a material effect on the company (Australian Institute of Company Directors, 2020).

The crucial roles that CEOs have to play can either guide their companies to the highest level of success or to failure and financial scandals. Barclift (2011) claims that lax corporate governance is mostly a symptom of a failing CEO because the chief executive officer is the fulcrum of corporate governance; CEOs can have a significant impact on all its parts. As a result, studies on the characteristics of the chief executive officer (CEO) have increased, and many of these attributes and their causal relationship with many

different variables like firm reputation, performance, and others have been highlighted and examined.

Huffman and Hegarty (1993) stated that executives' functional experience and competence may have the greatest impact on the efficacy of strategy formulation. In business industries, companies' growth and success have been used as indicators to assess executives' performance, effectiveness, and strategic decision-making process because executive leaders' ability to scan and evaluate their environments, use this knowledge to construct a workable strategic plan, and implement that strategy determines how effective a company will be (Zaccaro, 1996).

Furthermore, a company's sustained growth over time is expected to positively influence its stock prices. The continuous expansion of a firm enables it to offer attractive dividends to its shareholders. Additionally, a profitable firm can reinvest its retained earnings into business expansion. Beyond the financial benefits, a growing company experiences not only rising profits but also enhances its business reputation, brand value, and market share within the industry. Consequently, shareholders of these companies indicate that they would like to diversify their portfolios by acquiring additional shares. A higher share price is usually the outcome of this increased demand, increasing the shareholders' total value (Verma et al., 2018).

The current study aims to examine the impact of the CEO's characteristics on the company's stock prices in the manufacturing sector through their use of accumulated knowledge to formulate the company's strategies and long-term planning to create sustainable growth.

This chapter includes the research problem, the study contributions, objectives, literature review, and hypothesis development. In addition, Chapter Two clarifies the research approach, study sample, and variable measurement. Furthermore, Chapter Three contains research results and discussion. Finally, Chapter 4 presents the study's conclusion and the researchers' recommendations, besides the limitations of the study and suggested future research.

## **1.2 Research Problem**

The performance and quality of a firm's top managers are the most critical determinants of the firm's existence and success (Drucker, 1954). When a business achieves its pinnacle of success or even fails, the CEO has always been the centre of attention. This has been proven by the success of many companies, like Apple and Tesla, whose CEOs are getting so much media attention. Similarly, Enron's company's CEO, Ken Lay, was in the spotlight and accused of being the reason for the company's bankruptcy because of his fraudulent accounting practices. Then, Congress passed the Sarbanes-Oxley Act in response to the Enron scandal, with the goal of making corporate executives more responsible for the financial statements of their companies. And as the failure and success of a company is often attributed to the CEO, researchers' interest in the CEO's characteristics relationship with firm performance has increased in different ways, and previous literature regarding this relationship can be classified into different categories like CEO's background, personality attributes and leadership style (Liu et al., 2018). Previous literature among the three areas of research related to CEO's attributes mentioned above has usually examined CEO's characteristics impact on firms' performance using Tobin's Q, ROA, or revenue growth rate to measure performance most of the time (Ghardallou et al., 2020; Kaur and Singh, 2019; Peni, 2014). Other research was interested in investigating CEO's attributes relationship with earning management (Kumshe et al., 2020; Alqatamin et al., 2017; Mather and Ramsay, 2006). However, only very few studies have discussed the influence of CEO characteristics on a company's share price, and little research has linked those characteristics with sustainable growth rates as well in both developed and developing economies.

In a business setting, sustainable growth refers to a company's ability to increase revenue without exhausting its financial resources. A sustainable growth rate can have a significant impact on a company's financial health, and it is connected with firms' profitability and efficiency. Some research found a significant positive relationship between firms' profitability and their' sustainable growth (Mukherjee and Sen, 2022; Fauzias Mat Nor, 2020). As SGR is useful for identifying the inadequacies of firm growth and capturing a company's value-generating potential, it's considered an important measurement for a company's financial performance; consequently, it was examined in different research studies, but there is a lack of literature that investigates the relationship

between CEO characteristics and SP and SGR. Some studies have examined specific characteristics, like the impact of gender diversity on SGR (Amin et al., 2023). Some others studied CEO's academic experience on SGR (Wang et al., 2023) and CEO's duality influence on SGR (Liu et al., 2023).

The results of studies that examined CEO's characteristics impact on firm performance, firms' growth, and share price were different. For example, regarding the CEO's age impact on firm performance, a study in the US found a weak relationship involved (Meltschakow, 2020), while in China a significant positive relationship has been found (Rahman and Chen, 2023). On the other hand, in India, a negative association between CEO's age and SGR has been discovered (Mukherjee & Sen, 2022). Similarly, the current body of literature includes inconsistent results regarding the connection between sustainable growth rate and share price performance. Instead, some studies examined a company's performance, which is usually measured using ROA and Tobins' Q, and the corporate governance effect on share price; some of them found a positive and significant relationship (Sukestl et al., 2021), while others found this relationship positive but insignificant (Mulyono et al., 2018)

Under previous literature, it's unquestionable that some CEO's attributes affect firms' SGR, which in turn proved in other research that they affect firms' share prices. In this study, the researcher is trying to fill a gap in the literature related to the impact of CEO characteristics on share price and is also investigating if SGR mediates the relationship between CEO characteristics and share price in emerging countries like Palestine and Jordan. A thorough search of the relevant literature yielded no related article on the mediating role SGR plays in the CEO's attributes and share price relationship.

### **1.3 Research Questions**

According the study problem statement, the researcher is addressing these questions:

**Q1:** Is there a significant impact of CEO characteristics on SP?

**Q1.A** Is there a significant impact of CEO's education on SP?

**Q1.B** Is there a significant impact of CEO's experience field on SP?

**Q1.c** Is there a significant impact of CEO's turnover on SP?

**Q1.d** Is there a significant impact of CEO's age on SP?

**Q2:** Is there a significant impact of CEO characteristics on SGR?

**Q2.A** Is there a significant impact of CEO's education on SGR?

**Q2.B** Is there a significant impact of CEO's experience field on SGR?

**Q2.c** IS there a significant impact of CEO's turnover on SGR?

**Q2.D** IS there a significant impact of CEO's age on SGR?

**Q3:** Is there a significant impact of SGR on SP?

**Q4:** Does SGR have a mediating impact on the relationship between CEO's characteristics and SP?

**Q4.A** Does SGR has a mediating impact on the relationship between CEO's Education and SP?

**Q4.B** Does SGR have a mediating impact on the relationship between CEO's experience and SP?

**Q4.c** Does SGR have a mediating impact on the relationship between CEO's turnover and SP?

**Q4.D** Does SGR has a mediating impact on the relationship between CEO's age and SP?

#### **1.4 Research Importance**

This study offers significant contributions on multiple fronts. Firstly, it extends prior literature by investigating the intricate relationship between CEO characteristics, share prices, and SGR, drawing upon signalling theory and upper echelon theory. This expands the theoretical landscape and offers fresh insights into the dynamics at play in corporate leadership and financial performance. Secondly, this study breaks new ground by examining the mediating role of SGR in the relationship between CEO characteristics and share prices in manufacturing companies. Thirdly, the study pioneers research in the context of emerging economies such as Palestine and Jordan, where investigations into CEO attributes and their impact on share prices and SGR in this context have been limited. By filling this gap, this study provides valuable insights into the current situation and the importance of some of these characteristics and SGR in shaping company share prices in these regions, thereby enriching both academic literature and practical

understanding. Thereby, this study underscores the importance of strategic decision making and leadership competencies in influencing market perceptions and financial outcomes. Lastly, this study not only enhances our understanding of corporate governance mechanisms but also informs policymakers and practitioners about the factors driving market performance in diverse economic contexts.

### **1.5 Research Objectives**

Business growth is crucial for companies to continue operating, sustain their performance, and achieve designed objectives without going through financial challenges. Moreover, it was proven that good performance for a company affects its share prices. However, company growth and performance depend on strategic decisions made by CEOs (Li, 2017). Harnish & Collins (2021) believe that choosing the right executive is the greatest decision in a company, as executives who can adapt to uncertain conditions are the ones who can lead the company to success. As a result, in this study the researcher aims to address different CEO characteristics that may affect their decision-making process and, therefore, the company's growth and share price. The researcher chose some CEO characteristics to reflect their financial backgrounds, like their education and experience, and other demographic attributes like CEO turnover and CEO age. The primary goal of this study is to examine the impact of SGR on the relationship between CEO characteristics and SP. Furthermore, it investigates the direct relationship between the CEO's characteristics and the company's SP in the context of emerging economies represented by the Palestinian and Jordanian markets.

The study objectives are:

- O1.** To examine if there is a significant impact of CEO Characteristics on SP.
  - O1.A** To examine if there is a significant impact of CEO's education on SP.
  - O1.B** To examine if there is a significant impact of CEO's experience on SP.
  - O1.c** To examine if there is a significant impact of CEO's turnover on SP.
  - O1.d** To examine if there is a significant impact of CEO's age on SP.
- O2.** To examine if there is a significant impact of CEO characteristics on SGR.
  - O2.A** To examine if there is a significant impact of CEO's education on SGR

- O2.B** To examine if there is a significant impact of CEO's experience on SGR
- O2.c** To examine if there is a significant impact of CEO's turnover on SGR
- O2.D** To examine if there is a significant impact of CEO's age on SGR
- O3.** To examine if there is a significant impact of SGR on SP.
- O4.** To examine if sustainable growth rate has a mediating impact on the relationship between CEO characteristics and SP.
  - O4.A** To examine if sustainable growth rate has a mediating impact on the relationship between CEO's education and SP.
  - O4.B** To examine if sustainable growth rate has a mediating impact on the relationship between CEO's experience and SP.
  - O4.c** To examine if sustainable growth rate has a mediating impact on the relationship between CEO's turnover and SP.
  - O4.D** To examine if sustainable growth rate has a mediating impact on the relationship between CEO's age and SP.

### **1.6 Theoretical background, Literature Review & Hypothesis development**

Organizations are established when individuals come together to coordinate their efforts towards a shared objective. Numerous studies have delved into the significance of board characteristics in realizing firms' goals by influencing their policies (Jalal et al., 2023). Similarly, attention has been directed towards executives in research endeavours, exploring various facets such as the influence of their remunerations and rewards on firm performance (Abdeljawad et al., 2023). This emphasis on executives stems from the pivotal role they play in the viability and resilience of a company, with their responsibilities spanning the maintenance of organizational operations (Barnard, 1938).

In the 1970s and 1980s, leadership concepts and individuals at the top of organizations were in the spotlight. Many leadership models and concepts emerged to discuss the nature and effect of leadership as well as to describe the effectiveness of leadership, such as “transactional leadership” and “transformational leadership” models that have been addressed by several theorists like James Burns in 1978, Kuhnert & Lewis in 1987, and Barnard M. Bass in 1974 (Tavanti, 2008). Despite the claims of some researchers that

such leadership can exist across all organizational levels, most of the attention in the literature was directed toward identifying the unique attributes of senior organizational leadership. Portugal and Yukl (1994) discussed executives' leadership, "strategic leadership by top executives," in their book. The growing interest in executive leadership in organizations and this heightened focus confirm the idea that executive leadership is different (Zaccaro, 1996).

Hemphill (1959) identifies long-term planning as a key executive role, emphasizing the importance of executives in strategic planning. Similarly, Tornow and Pinto (1976) broaden the executive's roles to include planning, strategic decision-making, financial decision-making, and monitoring. Allocation of resources is also recognized as a significant role for CEOs in previous literature (Hales, 2007). Based on the foregoing and after understanding the importance of the CEO's position in the management hierarchy, their characteristics are asserted to play critical roles within the firm (Altarawneh et al., 2020).

### **1.6.1 Share price**

The share price reflects the current value of future cash flows expected by shareholders. Additionally, it can be viewed as a result of the dynamic interaction between buyers and sellers, influenced by their expectations of company profits (Agustianawati & Puspitasari, 2018). Prior research attempted to examine the association between SP and various accounting metrics such as earnings, book value, and dividends to comprehend fluctuations in SP. The relationship between SP changes and financial information is a concept developed by Ball and Brown in 1968, suggesting that surplus profits can lead to unusual returns for investors. This observation establishes a connection between a company's profitability and its share price (Asif et al., 2016). While others were interested in examining the effect of top managers with specific attributes on share prices, Delshad and Tehrani (2019) investigated the impact of managerial myopia and the accuracy of management forecasts on the occurrence of stock price crashes; Qian et al (2018) examined CEO's duality and ownership on SP. However, the constant updating of stock prices serves as a real-time reflection of new information concerning a company. These stock prices, in turn, mirror the lasting impacts of a company's business decisions that top managers have made. When a company enhances and optimizes its stock prices, this would enable investors to promptly realize capital gains through the sale of their shares.

The upward movement in stock prices is frequently linked directly to the value-creation performance of management. Among all metrics, stock prices are the most readily observable for investors and serve as a key indicator for evaluating the performance of a publicly listed company (Kumar, 2017).

### **1.6.2 Sustainable Growth Rate**

Sustainable growth in finance refers to the highest rate of sales growth that a business may achieve without depleting its cash reserves (Higgins & Gulati, 2006). Businesses must be able to determine their sustainable growth rate in order to determine their growth potential constraints and their financing needs at various stages of their life cycle (Reinhardt, 2000). With this information, management is better equipped to maintain growth pressures and preserve financial soundness by making well-informed judgments on investments in new businesses or products. Operating executives can lead their firms toward long-term success by controlling expansion successfully. A company can achieve sustainable growth by striking a balance between its desire to expand and its obligation to preserve its financial stability through careful resource management. It implies that businesses should aim to grow sales at the fastest possible rate without putting undue strain on their financial resources (Rizwan, 2022). However, companies may need to restrict growth in order to preserve their financial strength, and here executives come into play to make the right decision in order to reach the sustainable growth rate of the company. Growth is not always something that should be maximized (Higgins, 2016).

The life cycle of a successful company is predictable and consists of four phases: inception, fast growth, maturity, and decline (Silvola, 2008). The periods of rapid growth and maturity are when financing is most urgently needed (Filatotchev et al., 2006). A company's growth potential is limited by its sustainable growth rate; thus, management must plan ahead and make the required investments to support growth without going overboard. Investing in new products or firms that are still in the growth stage is a tactic that more established or declining businesses may use. By diversifying the risks associated with their current operations, these investments can assist these companies in sustaining growth pressures within their sustainable bounds (Gupta and Chin, 1994).

In summary, knowledge of sustainable growth is critical to effective financial management. While expansion is an essential component of business, organizations must limit development when it becomes necessary to prevent overstretching their resources. Furthermore, operations executives are essential to managing growth because they strike a balance between the company's financial capacity and growth goals, guiding businesses toward long-term success. Therefore, to make the most use of their resources and maintain long-term financial health, firms must implement sustainable growth strategies (Higgins, 2016).

### **1.6.3 Manufacturing Sector & Emerging Economies**

Historically, manufacturing has been essential to the development of developing countries' economies. Haraguchi et al (2017) study presented facts that refute the claims predicting declining opportunities for manufacturing development in developing countries and the declining role of manufacturing in economic advancement. It proves that the idea that prospects for industrial development have decreased is unsupported by any solid data. Even in the years after 1990, the manufacturing sector in developing countries continues to demonstrate traits that make it a catalyst for economic development, especially when maintaining rapid growth rates while keeping GDP levels constant. Worldwide, investors, practitioners, and economists all agree that the manufacturing sector plays a crucial role in promoting economic growth.

Jordan's manufacturing industry has grown significantly in recent years, and Jordan's economy is heavily dependent on the manufacturing sector, which contributes more than (23.95%) of the nation's GDP. In addition, there are more than (600,000) people employed in this area, making it the second-largest economic sector after the services sector. The manufacturing sector in Jordan is made up of many different subsectors, including textiles, electronics, building materials, furniture, chemicals, and medicines (O'Neill, 2024).

On the other hand, the industrial sector is the backbone of the Palestinian economy and is essential to the region's social and economic advancement. Notwithstanding several challenges, this industry has continuously shown progress, especially in the last several years. According to Ministry of National Economy projections, Palestine's manufacturing sector's GDP contribution is expected to increase by (2.5%). Over the following six years,

this increase is expected to raise its proportion from (11.2%) to (13.7%). The ministry stated that between 2023 and 2029, this growth trajectory is anticipated to create (79,000) additional job opportunities, increasing the number of workers from (139,000) to (218,000). The strategy also calls for (\$486) million in additional expenditures to be made in order to support environmentally conscious initiatives or increase production capacities for already-existing businesses (The Ministry of National Economy, 2023).

Based on the information mentioned above, the researcher chose manufacturing companies listed in PEX and ASE as they both are developing countries in which their manufacturing sector and growth impact their economies. Policies chosen and decisions made by CEOs in these industrial companies to enhance growth are reflected in firms' performance and, as a result, in investors' decisions and consequently in demand and supply, which would shape share prices in those manufacturing companies. Thus, the researcher explores in this study investors' reactions in the market according to the indirect CEO characteristics' impact on firms' sustainable growth.

And here's a glance at the Palestine Exchange and Amman Stock Exchange establishments: PEX was established in 1995 with the intention of encouraging investment in Palestine. It held its inaugural trading session in 1997. It has changed its name to become the second Arab stock exchange that is fully controlled by the private sector and was opened for trading in 2010. The listed companies on PEX are grouped into five sectors: banking and financial services, insurance, investment, industry, and services. PEX allows trading in US dollars as well as Jordanian dinars. Securities companies that are PEX members operate in the West Bank and Gaza Strip, and approved custodians can act on behalf of international investors. On the other hand, ASE was established in 1999 as an independent, non-profit institution that is permitted to operate as a regulated exchange for trading securities in Jordan. In 2017, the ASE underwent an important change when it was formally registered as a publicly traded company with government ownership and changed its name to "The Amman Stock Exchange Company (ASE Company)". Overseeing, managing, and improving the activities of the commodities, securities, and derivatives markets in Jordan and abroad is the main goal of the ASE Company, which has created internal guidelines and policies that direct its management in order to accomplish its goals (PEX website, ASE website, 2023).

Decree-Law (42) of 2021 regarding companies in Palestine states that the general manager in company's executive management is responsible for managing company's daily business and applying the provisions of corporate governance (Gazette, 2021) but didn't state specific attributes of a CEOs. On the other hand, CEOs responsibilities are not determined clearly in the Jordanian companies law where each company divide responsibilities among managers, and the code of corporate governance in Jordan states that CEOs hired should be competence enough to manage and do their assigned responsibilities, and the board should monitor their performance (Commission, 2017). Accordingly, this study attempts to investigate the impact of a variety of CEOs' attributes.

#### **1.6.4 CEO characteristics and share price**

According to Almashaqbeh, et al (2021), some of the important elements affecting share prices are the firm's borders, governance, ownership structure, audits, and the value and relevancy of accounting information. And an extensive range of roles are played by executives, as demonstrated in prior governance literature, researchers were prompted to employ various theories to explore the significance of executive characteristics, including education and experience. In his work from 1974, Spence characterizes the hiring process as an investment, where managers select employees at different wage levels based on apparent characteristics such as experience, gender, education, and nationality. These characteristics serve as signals for the applicants' anticipated productivity and performance. Spence likens the hiring process to choosing the last number in a lottery, where success may or may not be achieved similarly, signaling CEO performance through their characteristics is seen as signaling firm success (Karasek III & Bryant, 2012). Signal theory posits that individuals possess inherent productivity levels irrespective of their educational background, and higher education is associated with a higher cost, which varies based on individual productivity levels. The theory assumes asymmetric information, indicating that individuals have insights into their skill levels that hiring managers lack (Taj, 2016). Nevertheless, education levels can be observed without incurring significant costs it also provides a conceptual framework for comprehending how information is conveyed and processed through diverse channels when parties have unequal access to information (Spence, 1974). Michael Spence's contributions to signal theory have illuminated the role of firms' financial performance as a signal to the market. His work has been instrumental in understanding how information asymmetries can be

addressed in the financial marketplace. Spence argues that firms' financial performance acts as a signal that aids the market in assessing the quality of financial information provided by firms. In the realm of finance, signal theory is widely employed to grasp how share prices can be signaled based on various market indicators such as volume, volatility, and liquidity (Spence, 2002).

Moreover, signaling theory plays a crucial role in understanding the relationship between CEO's attributes and firm performance, as well as the relationship between CEO's attributes and share price, as it would help investors interpret the signals provided by CEO attributes and make assessments about a company's quality and prospects (Abdullahi et al., 2023).

Over the past few decades, there has been a growing focus and concern regarding the performance of companies' share prices because a company's share price mirrors the market value of the investment held by shareholders. In corporate settings, capital gains from the sale of investors' shares and dividend payments, if any, are the two main advantages enjoyed by equity shareholders. Over time, these advantages have significantly attracted investors (Matthew et al., 2014). The investigation into the impact of CEO attributes on stock prices is at a nascent stage. Research on share prices has become a pertinent research area, offering many opportunities to delve deeper into the relationship between CEO traits and company share prices. Examining how CEO attributes contribute to the enhancement of share prices over time is crucial since these insights can potentially aid in maximizing a company's overall value, among other pertinent factors. Real-life examples include the case of Steve Jobs, whose return to Apple in 1997 was seen as a positive signal for the company, leading to a significant increase in share prices (Finkle & Mallin, 2010).

Few studies have started examining how some of the CEO's attributes impact the company's share price. For instance, CEO age, experience, tenure, turnover, gender, nationality, education level, and firm size have all been identified as potential predictors of future stock performance (Amar et al., 2011). The implications of CEO attributes in signal theory are far-reaching, with many companies now focusing on hiring executives who possess specific attributes that are believed to signal future performance.

According to Becker (1964) the education and experience of CEOs contribute to enhancing their human capital, thereby augmenting their ability to effectively manage a business, the intricate relationship between human capital theory and education underscores education as an investment, generating returns for individuals in terms of remuneration and for the state in the form of increased employment and economic growth. One enduring debate within the economics of education literature revolves around the divergent viewpoints of signaling theory and human capital theory. Human capital theory states that education increases productivity, which raises salaries. On the other hand, the signaling theory argues that education increases pay mainly because a worker's degree of education acts as a signal of their abilities, which an employer may otherwise miss.

Moreover, the fundamental distinction between signaling and human capital models lies in the capacity of signaling models to enable firms to deduce information about unobserved traits of workers. These inferences may stem from factors like workers' education, work experience, or direct assessments of certain facets of job performance (Weiss, 1995). Recent empirical observations find more alignment with signaling models than with human capital theory. As a result, the researcher in this study will use the signaling theory to interpret the relationship between CEOs different attributes and share prices. We extend existing research that utilizes signaling theory to investigate how top management team and director attributes affect the firm's investor valuation (Higgins & Gulati, 2006; Zhang & Wiersema, 2009). This study delves into the potential impact of the CEO's characteristics on the way the financial market responds to factors such as age, turnover, education, and experience. Recognizing the difficulty of evaluating the intrinsic quality of the company's financial statements, this research examines the possibility that the traits of the CEO could be important in providing investors with important information. These characteristics serve as key signals for investors so they can place integrity and confidence in the firm's financial statements. Consequently, this signaling process influences how the stock market reacts to the CEO's characteristics.

Based on our previous discussion, the researcher developed the following hypothesis:

**H1:** There is a significant impact of CEO characteristics on share price.

#### **1.6.4.1 CEO education and share price**

Khanna et al. (2013) stated in their study that directors' human capital, their prior experience, and their education are likely to have a positive impact on a company's performance because it will make them more capable of overseeing management and giving recommendations. On the other hand, Ying & Mei (2014) revealed a notably negative relationship between CEO education and firm performance, which would be reflected in a decline in the company's share prices. This has been noticed in family-owned firms but not observed in non-family-owned firms. The study concluded that higher educational attainment for CEOs does not contribute to an improvement in firm performance; instead, it appears to have a detrimental effect. Similarly, a study in China found a negative relationship between a CEO's financial background and firms' innovation (Gao et al., 2023), and as innovative companies tend to grow faster, have higher profit margins, demand, and higher revenue because they tend to charge higher prices for their outstanding services and products, this would raise their share prices. As a result, CEOs with financial backgrounds who don't support innovation would negatively affect share prices.

Certain studies propose that corporate financial policies and financial decisions of companies are influenced by the educational background of CEOs; this background shapes their individual characteristics and professional career experiences (Mun et al., 2020). Some developing countries, like China, have witnessed a steady increase every year in the percentage of CEOs with a financial background. Just 0.41% of CEOs had a financial background in 2003; however, by 2019, this percentage had significantly increased by 7.96%. A CEO's ability to manage is greatly impacted by their financial background, which has become a crucial aspect in differentiating CEO success. CEOs' strategic decisions on the corporation's sustainable development may be influenced by their financial competence (XiaoFang Tan et al., 2021).

According to Ghardallou (2020), Saudi companies with CEOs who have degrees in business administration, economics, finance, or accounting will perform significantly better when the CEO has a postgraduate degree. Stock performance improves. It was also

proven that executives with experience in a related field have a beneficial impact on the firm's performance. This aligns with a study on manufacturing companies in India that investigated how the personal characteristics of a company's CEO, such as age, tenure, education, and work experience, affect the company's investment decisions. The results have proved that a CEO's financial education has a positive relationship with investment decisions (Gupta et al., 2018). Additionally, in banking sectors where most CEOs are financially educated, it was proven that a CEO's financial knowledge, skills, and education affect firm performance positively (Zaidi et al., 2021), thus making a more successful company attract more future investors and increase the company's share price.

However, research on Indian non-financial companies has examined the relationship between CEO attributes and firms' performance where the researcher has measured the education by coding 1 if the CEO holds a postgraduate degree, Ph.D., or professional degree and '0' Otherwise, findings indicated that there is no association between CEO education and ROA (Mukherjee & Sen, 2022). By using the same measurement, similar results were found on a sample of 390 companies in the US (Gottesman & Morey, 2010).

Prior research mentioned above and more have used different methods to measure a CEO's education; a lot of them included certifications like master's, PhD, and MBA to represent CEO education; others have focused on whether a company's CEO holds a degree related to administration and economics or not. On the other hand, some research examined whether a company's CEO has graduated from prestigious universities or not and whether this affects their performance, and the results proved that there is no indication that CEOs who graduated from prestigious universities outperform those with CEOs from less prestigious schools and that CEOs with law or MBA degrees don't outperform other CEOs who hold no graduate degrees (Gottesman & Morey, 2006). However, some research has shed light on the financial background of a company's CEO and examined if his financial knowledge affected his strategic decisions and performance (XiaoFang Tan et al., 2021; Ghardallou et al., 2020; Gupta et al., 2018). A qualitative study in South Africa wanted to examine whether a CEO with financial education is more capable of facilitating a company's financial performance than a CEO who doesn't have financial education using a sample of 40 companies, and the results revealed that there is no significant difference in firm performance, which was measured with ROE, for

companies led by financially educated CEOs and others led without financial education (Jankelowitz, 2015). The same relationship was examined in Sweden, a highly developed country, and the results found no significant relationship between CEOs educational level and firm performance. They also found no evidence to support the claim that firms headed by CEOs with a higher level of education outperformed those controlled by CEOs with only an undergraduate degree (Ofe, 2012).

According to signaling theory, individuals who seek higher education are essentially communicating their higher capabilities to employers, and by obtaining more education, they signal possessing greater capabilities, skills, and productivity, which in turn is reflected in their pay. In our study, we suggest that if a company's CEO holds a degree in finance, financial management, accounting, auditing, or an MBA, this would signal a good performance and reflect on the company's share price.

Based on previous literature, the researcher examines the following hypothesis:

**H1a:** There is a significant impact of CEO's education on share price.

#### **1.6.4.2 CEO experience and share price**

Since CEOs are responsible for maximizing shareholders' value, and as resource-based theory suggests that employees' experience and knowledge lead to enhanced and improved firms' performance, it's important to deeply investigate CEOs' financial experience and examine its effect on the share price. Some studies have proved that when the CEO has prior experience with the company before being hired as CEO, stock performance improves (Saidu, 2019).

We can notice that investors' interest in the CEO's experience appears from the positive market reaction when companies decide to appoint a CEO who has served in the same position for another company (Byrka-Kita et al., 2017). And because CEOs with financial experience take a more proactive approach to overseeing financial policies, they tend to reduce the sensitivity of their firm's investments to cash flows, and as their financial expertise increases their ability to raise external funds even in challenging credit conditions, mature firms tend to employ CEOs with such experience (Custodio and Metzger, 2014).

Volonté and Gantenbein (2016) also validated that human capital experience, industry knowledge, CEO experience, and financial expertise of directors impact firm success and that this relationship depends on the firm's strategy.

In Pakistan, a study has investigated the association between a CEO's characteristics like financial education, experience, tenure, ownership, age, and the company's performance. The results show that a CEO's career experience, financial knowledge, and age have a positive relationship with firm performance and state that a CEO's decisions regarding capital investments mediate this relationship (Ali et al., 2022).

When companies go through financial distress and the economy fails, a CEO who has a long experience working in the fields of accounting, auditing, and finance, has worked as a financial director, or has related experience with accounting is going to make the company's financial decisions more precise and accurate with each suggested solution, strategy, and step toward making the right decisions. Gupta, Mahakud, and Debata (2018) affirmed this thinking in their results and found that investors demonstrate higher trust in CEOs with financial experience in times of financial crisis. Based on some prior research, CEOs who have worked as CFOs tend to be more conservative when they choose accounting policies, and they have less earning management than other CEOs without financial experience. In addition, when CEOs are facing allegations of orchestrating significant accounting scandals within their companies, the main questions they have been asked in trials revolve around how much chief executives know about the financial situation and how much they should, and usually CEOs with no financial experience and education assert their ignorance regarding the financial manipulations in their companies. In each instance, they contend that a manipulative CFO operated independently, without their knowledge or involvement.

CEOs possessing cross-industry experience generally contribute to comparatively lower firm performance. Conversely, CEOs with specific-industry experience tend to guide firms towards higher performance levels and exhibit a greater commitment to investing in R&D, which would signal a higher performance and affect share prices positively (Chahyadi et al., 2021). In addition, it was proven that there is a negative relationship between company performance and previous CEO experience. CEOs with job-specific experience in the same or a related industry, or those who move straight from a previous

position into their current function, demonstrate much inferior post-succession performance, which would signal a decline in company's share price (Hamori and Koyuncu, 2015), while another study included 17 European countries to examine CEO attributes and its impact on firms performance represented using ROE and ROA, and found that the transition of CEOs does not demonstrate any discernible impact on the company's performance as a change in a CEO who owns specific financial expertise in exchange with another CEO who possesses different experience has no significant impact on firm performance (Gerli, 2020). Finally, the professional background and expertise of the CEO act as signals under the signaling theory, providing the market and stakeholders with valuable information.

In the light of the above information, the researcher developed this hypothesis:

**H1b:** There is a significant impact of CEO's experience on share price.

#### **1.6.4.3 CEO turnover and share price**

In essence, signaling theory helps explain how CEO turnover is not just a procedural event but a deliberate action that communicates valuable information to the external environment, influencing stakeholders' perceptions and expectations about the company's future. The link between CEO turnover and signaling theory lies in the transformative role leadership changes play as signals to external parties, enlightening them about the present state and future potential of the firm. Signaling theory addresses the challenge of information asymmetry between management and external stakeholders. It underscores the strategic use of signals to diminish uncertainty and communicate pertinent information. In this context, CEO turnover emerges as a powerful signal to external stakeholders about the board's assessment of the company's performance and future direction. By manifesting a tangible event, CEO turnover effectively combats information asymmetry, compelling stakeholders to reevaluate their perceptions of the company. Moreover, CEO turnover operates as a noteworthy performance signal. If interpreted as a response to suboptimal performance, it becomes a clear indication that the board is proactively taking corrective measures to enhance the company's course. The market's response to CEO turnover further amplifies its signaling role. Positive market reactions may signify endorsement of the change, while negative reactions could imply scepticism toward the board's decision. In this intricate interplay of actions and reactions, CEO

turnover emerges not merely as a change in leadership but as a nuanced communication strategy shaping external perceptions and expectations.

Some researchers have examined the market reaction to a CEO's turnover, and they have distinguished in some studies between forced CEO turnover and voluntary CEO turnover. Brickley (2003) thinks that understanding the predictability of CEO turnover is still incomplete and proposes that investigating CEO attributes like age could provide important new information. According to Brickley's research, older CEOs are more likely to be replaced than their younger counterparts, especially in larger companies where age becomes a more important predictor of turnover than previous performance. Chang and Wong (2004) indicated that there is no significant correlation between forced CEO turnover and stock price performance in China's listed companies, but it is associated with worse accounting performance improvements and negative earnings. The findings from a study on Nigerian companies reveal that the effectiveness of CEOs in maximizing share prices varies based on the distinct features and attributes of each firm, and the study conclusions do not endorse the significance of CEO duality, tenure, turnover, and ownership in influencing corporate share prices. In summary, the results suggest that the optimization of share prices is contingent upon factors such as the CEO's nationality, gender, and the size of the company, and they recommend including other CEO attributes in future research like education, age, and other CEO attributes that may affect share price (Abdullahi et al., 2023).

In addition, many researchers have used event study methodology to examine stock price reactions to different events and situations. For example, in China, using a sample of 1,094 announcements from 2002 to 2010, they investigated the impact of CEO turnover on share prices and concluded that a positive stock market reaction is usually produced by CEO turnover. Nevertheless, the response is not significant for businesses owned by local governments or privately held companies, only for those owned by the federal government (Pessarossi and Weill, 2013). However, a study encompasses 213 CEO turnover announcements documented for the Indonesia Stock Exchange over the period spanning 2000 to 2010, and the findings indicated that CEO turnover announcements indeed carry valuable information for investors, and the results represented a positive market response to CEO turnover announcements. Notably, the research found a favorable market reaction to announcements featuring an incoming outsider CEO, while

investor response remains neutral for announcements involving an incoming insider CEO (Setiawan et al., 2013). Similarly, Machdar (2019) conducted a study on the industrial companies in Indonesia and found that the performance of the stock market and the company both have a positive association with CEO turnover. On the other hand, announcements of top executive turnover are met with negative market reactions in the UK, particularly if the departing CEO is fired or takes a job elsewhere. Financial risk to the company and whether the board suggests a new CEO have a big impact on how the share price responds to news of a senior executive leave (Dedman & Lin, 2002).

Chang & Wong (2009) conducted an examination of the correlation between CEO turnover and the performance of publicly listed Chinese firms, revealing two key findings. Firstly, they identified a negative association between pre-turnover profitability and CEO turnover in instances where firms experienced financial losses. However, no such relationship was observed when these firms were profitable. Secondly, an enhancement in post-turnover profitability was evident in loss-making firms, whereas profit-making firms did not demonstrate a similar improvement. These findings suggest the presence of a dynamic objective function over time. Shareholders exhibit a stronger inclination to hold their CEOs accountable based on financial performance when the firms are incurring losses rather than enjoying profits.

Based on the foregoing literature the following the researcher developed this hypothesis:

**H1c:** There is a significant impact of CEO's turnover on share price.

#### **1.6.4.4 CEO's age and share price**

Based on signaling theory, shareholders may view an older CEO as a positive signal, potentially leading to increased confidence and stability, which could positively impact share prices. In 2016 in Johannesburg, a study affirmed this by indicating in its results that as the CEO's age and his years of experience increase, firms' share prices increase as well (Rambe & Mangara, 2016). On the other hand, another group of studies has suggested a different point of view. Prendergast & Stole (1996) present a managerial signaling model in which younger managers seek to convey their high-quality managerial skills and superior abilities to the market, they tend to make riskier investment decisions, which means that older CEOs may be associated with poorer stock performance because of their traditional outlook, aversion to change, and lack of creative ideas. Therefore, hiring a younger CEO may influence shareholders who value innovation positively,

potentially influencing share prices upward (Serfling, 2014). Positive perceptions about the CEO's leadership qualities, driven by age-related signals, may enhance shareholder confidence and positively influence share prices. Three Western European countries with industrial firms were examined to discover that as a CEO gets older, firms would face reduced investment, lower sales growth, and poorer profitability, but also a higher likelihood of survival, so the researcher suggested implying a trade-off between younger and older CEOs' managerial styles (Belenzon et al., 2019). Warren Buffet of Berkshire Hathaway, whose age and the ambiguity surrounding his succession plan caused the company's shares to underperform in 2019, the same happened with General Electric Co. CEO Jeff Immelt, who failed to get the company's stock price close to the heights reached by Jack Welch, his predecessor. Similar issues beset Steve Ballmer after Bill Gates left Microsoft Corp.

Some literature concludes that older CEOs focus on the company's survival more than taking risky investments and supporting innovation, and younger CEOs can be impulsive. The CEO's age could hurt stock prices, as stock price crashes are more common among younger CEOs, and this could be a result of revealing negative news in the form of breaks in strings of consecutive earnings increases, so the study emphasizes the significance of CEO age for company policies (Andreou et al., 2016). However, in subsequent markets (the New York Stock Exchange), there is no discernible link between CEO age and subsequent aberrant shareholder performance (Eduardo and Poole, 2016).

In summary, when examining a company's stock performance, the age of the CEO is an important consideration. While older CEOs might find it difficult to adjust to changes, which could result in subpar stock performance, younger CEOs' creative thinking might spur firm growth. Investors should thus keep a close eye on the CEOs' ages as well as the performance of their respective companies. They will be able to recognize trends and make wise investing choices as a result. Some literature has examined the impact of CEO age on stock prices, and results show how important it is to take a multifaceted approach to assessing a company's success in order to help investors make more informed judgments. Based on literature and information mentioned above the following hypothesis is developed:

**H1d:** There is a significant impact of CEO's age on share price.

**Table (1)***Summary of CEO characteristics and share price previous literature results*

<b>Characteristic</b>	<b>Positive</b>	<b>Negative</b>	<b>Insignificant</b>
Education	(Ali, Rehman, Suleman, & Ntim, 2022) (Gupta, Mahakud, & Debata, 2018). (Ghardallou et al., 2020) (Zaidi et al., 2021)	(Ying & Mei, 2014) (Gao et al., 2023)	(Mukherjee & Sen, 2022) (Gottesman & Morey, 2010) (Jankelowitz, 2015) (Ofe, 2012)
Experience	(Ali, Rehman, Suleman, & Ntim, 2022) (Gupta, Mahakud, & Debata, 2018). (Ghardallou et al., 2020)(Saidu, 2019) (Byrka-Kita, Czerwiński, & Preś-Perepeczo, 2017).	(Hamori & Koyuncu, 2015)	(Gerli, 2020)
Turnover	(Setiawan, Phua, & Chee, 2013) (Machdar, 2019)	(Dedman & Lin, 2002).	(Abdullahi, Musa, & Yahaya, 2023).(Chang, Wong, & Paper, 2004) (Pessarossi & Weill, 2013)
Age	(Rambe & Mangara, 2016) (Andreou, Louca, & Petrou, 2016).	(Gupta, Mahakud, & Debata, 2018) (Belenzon, Shamshur, & Zarutskie, 2019)	(Mukherjee & Sen, 2022) (Eduardo & Poole, 2016).

### **1.6.5 CEO's characteristics and sustainable growth rate**

The highest level of management inside an organization, which includes the CEO and other senior executives, is referred to as the upper echelons, and according to the upper echelons theory, the values, experiences, and cognitive constraints of top management have an impact on strategic choices and subsequent results for the firm. The theory, which was developed in the late 1970s by Donald C. Hambrick and Phyllis A. Mason and was published in a study article in 1984, has improved the knowledge of leadership roles in businesses and sparked decades of research into the connection between CEO backgrounds and firm performance (Hambrick & Mason, 1984). These presumptions affect the theory's predictions since they imply that the traits and choices of upper management have an impact on organizational outcomes (Hiebl, 2014). These predictions can be observed in action, for example, when a CEO decides whether to expand their market or pursue a merger; these decisions may be influenced by their past experiences and ideals. Since its inception in the late 1970s, upper echelons theory has seen significant development, and the hypothesis has been the subject of numerous research studies that corroborate its hypotheses and predictions, and it remains a potent tool for making sense of the role that top executives play in the success and failure of their organizations. Essentially, by examining how the characteristics of CEOs function as signals that influence how investors react to their actions, this research contributes to upper-echelon research., and recent research seems to be moving forward because it is focusing more pertinently on empirical data than on generalizations (Buyl et al., 2011).

For businesses, growth is essential because it allows them to sustain their performance and avoid financial crises. A company may experience financial distress if it does not have enough capital or financial resources to support its operations. The sustainable growth rate is affected by four primary variables that can be classified into two groups. The first group includes the operational elements, which are profit margin and net asset turnover, while the second group consists of the company's capital structure and retention ratio, which in turn reflect the dividend policy, and this group represents the financial policy adopted by the company (Naumoski, 2022). In this context, a rise in the firm's net asset turnover, profit margin, and debt-to-equity ratio causes the SGR to rise. On the contrary, a decrease in net profit distributed as dividends enhances sustainable growth due to a rise in the retention ratio (Higgins, 2016). And as measuring the SGR involves

specific metrics linked to the company's performance, the researcher would include the few studies in prior literature that have tied some of the CEO attributes with SGR and would review prior literature that has examined the CEO attributes-firm performance relationship, where performance was measured using different accounting metrics related to SGR. And based on the upper echelons theory the researcher developed the next hypothesis:

**H2:** There is a significant impact of CEO characteristics on sustainable growth rate.

#### **1.6.5.1 CEO's education and sustainable growth rate**

Under upper echelons theory, The profitability or growth of top managers' companies is unrelated to the amount of formal management education they possess. On the contrary, companies with managers who have had less formal management education will deviate more from industry performance averages than companies with managers who have received extensive management education.(Hambrick and Mason, 1984). In this study, the researcher examines the financial education background that CEOs have and its role in shaping their strategic planning and, in turn, impacting the company's SGR.

Inconsistent results between CEO education and firm performance have been found in previous studies. For example, this relationship was examined on the Saudi stock exchange using three different variables to reflect the CEO's education (level of education, domestic or foreign degree, availability of a higher degree in management or other fields), and the results showed that those who graduated from domestic institutions have a good impact on performance, while those who hold a management degree appear to have little to no impact on firms' performance (Altuwaijri and Kalyanaraman, 2020). Other studies have also indicated that CEOs with a PhD boost firm performance by 3.03 percent, whereas CEOs with a PhD from a top-tier university boost firm performance by 4.65 percent (Urquhart & Zhang, 2021).

In the US, a study for the period 1993–2007 included over 14,500 CEO years and over 2,600 CEO turnover instances. In order to examine the impact of CEOs on CEO replacement and firm performance, the results indicated that CEO education is important for decision-makers when they want to replace a company's current CEO due to poor performance. However, when they consider a higher level of education for the new CEO, like having an MBA degree, they will notice a positive change and improvements in the

company's performance for the short term only. On the other hand, for the company's long-term performance, the study found that there is no significant relationship between CEO education and firm performance (Bhagat et al., 2010)

Similarly, 50 food and beverage companies were used as a sample to investigate the relationship between CEO attributes and firm performance, where performance was measured using Tobin's Q, ROA, ROE, and ROS, and the study found no significant relationship between CEO education and the company's performance (Ahmad et al., 2022). Additionally, evidence from developing countries literature concludes that CEOs educational backgrounds don't have a significant influence on nonfinancial companies' performance, reputation, and sustainable growth (Mukherjee & Sen, 2022).

However, Saidu (2019) has explored the influence of CEO attributes on a company's performance. The research utilizes a sample drawn from companies within the financial sector that are listed on the Nigerian Stock Exchange, spanning the period from 2011 to 2016. One of the CEO attributes he chose in his study was education, and he found that CEO education enhances profitability and firm performance. Likewise, Ghardallou et al. (2020) have affirmed the positive impact that CEOs with financial education have on firm performance. Suherman et al. (2023) chose Indonesia as a developing country to examine the effect of CEO attributes on a company's performance using a sample of 203 nonfinancial companies, and the results included that CEO education positively and significantly improved the company's performance. While only a few studies have identified a negative correlation between CEO education and firm performance, Kanakriyah (2021) explored the influence of board of directors' attributes such as gender, nationality, ownership and education on firm performance. His study, conducted over a six-year period 2015–2019 and involving a sample of 85 manufacturing companies in Jordan, revealed a statistically significant negative relationship. Moreover, Boadi and Osarfo (2019) found inconsistent results concerning the impact of holding a specific educational degree on firm performance, as holding a bachelor's degree has a positive impact while holding a PhD degree has a negative impact on firm performance.

Regarding choosing the most suitable financial policies for the company, It's based on the educational background that the CEO possesses, as it's the backbone for all of their personal characteristics and professional career experiences that play a critical role in

shaping the CEO's way of thinking and, in turn, affect their company's financial policy choices, ultimately contributing to diverse firm performances regarding cash holding policies and the valuation of excess cash (Mun et al., 2020). Those results align with the XiaoFang Tan, Fang, and Dong (2021) study results, where they examined the impact of CEOs with financial backgrounds on strategic planning and corporate sustainable development by considering the financialization of both debt and assets. Utilizing data from listed companies spanning 2003 to 2019, their findings revealed that CEOs with financial backgrounds contribute to the advancement of corporate sustainable development. The channels through which financial backgrounds exert influence include asset financialization and debt financialization. Additionally, these conclusions hold greater significance when the company operates in regions with higher economic levels. Some of the previous literature has used measures like ROE, ROA, and Tobin's Q to reflect the company's performance, while others have used SGR to reflect its sustainable performance. In our study, we are investigating the CEO's education impact on corporate sustainable growth.

And based on the above discussion, the researcher developed the following hypothesis:

**H2a:** There is a significant impact of CEO's education on sustainable growth rate.

#### **1.6.5.2 CEO's experience and sustainable growth rate.**

Wang et al (2016) indicated that the idea that more experience in a variety of fields, roles, or positions better prepares CEOs to make strategic decisions and may even boost their confidence and knowledge is supported by the positive correlation that exists between a CEO's extensive prior career experience and the range of firm strategic actions. In other words, the relationship between CEO experience and the Upper Echelons Theory highlights how a CEO's past experiences have a big influence on their leadership style, strategic decisions, and internal decision-making processes. The literature on upper-echelon theory emphasizes that an executive's morality, upbringing, and personality all play a major role in how they interpret the situations they face and, ultimately, how they make decisions (Hambrick & Mason, 1984).

CEOs strategic decisions about the corporation's sustainable development may be influenced by their financial competence. Studies focusing on CEOs with a finance-oriented career background reveal a connection between the CEOs' prior financial

expertise and the financial strategies adopted by their respective firms. Companies led by CEOs with financial backgrounds exhibit variations in their financial policies, including cash reserves, capital structures, and share repurchase practices, distinguishing them from firms led by nonfinancial CEOs (XiaoFang Tan et al., 2021).

Al-Matari (2020) has looked at the role top executives play in companies and how their experience and attributes impact firms' performance in the financial sector. Among Omani listed companies, they have found that CEOs' accounting experience and general experience as well have a strong positive relationship with the company's performance. Similarly, a study on nonfinancial companies listed in Palestine explored the impact of CEO characteristics and board multiple directorships on firms' performance for the period 2009–2016, where performance was measured using ROA and ROE. The results included a positive relationship between the CEO's financial experience and the company's performance (Saleh et al., 2020). Even academic experience has been involved in literature to explore if it affects a company's sustainable growth. A study in China examined this relationship utilizing data from Chinese companies spanning the period of 2010 to 2017 and found that CEOs' academic experience impacts SGR positively (Wang et al., 2023).

On the other hand, Serra et al. (2016) have used a combination of secondary data for 73 publicly, the results revealed that CEOs with a diverse range of experience didn't reflect superior performance in dynamic environments; moreover, the results showed a negative relationship between CEOs with a specific experience and the company's overall performance. Usually, after any CEO's failure top management try to look for another suitable alternate to fill previous CEO's position who has qualifications to enhance and improve the firm performance, top management based on previous literature at this point focus on educational qualification, this vein, a study in China using a dataset comprising 316 non-financial companies that have experienced CEO turnover, have tried to understand the most favorable characteristics of CEO successors that contributes to the recovery from financial distress, the results surprisingly showed that CEO experience and political connections contributes to firms' recovery from financial distress while CEO finance experience factor exhibited insignificant effect, which means that CEOs with financial experience have limited abilities to develop the right strategies in failure scenarios and can't sustain company's growth (Yao, 2021).

Based on the literature above, the next hypothesis was developed:

**H<sub>2b</sub>:** There is a significant impact of CEO's experience field on sustainable growth rate.

### **1.6.5.3 CEO's turnover and sustainable growth rate**

An agency relationship, according to Jensen & Meckling (1976), is a legal arrangement in which one or more people (the principal) appoint another person (the agent) to carry out a specific task on their behalf while also delegating some of their decision-making authority to the agent. The agency relationship is problematic by definition if the personal interests of the principal and the agent differ. The underlying assumption of agency theory is that there is an inherent knowledge asymmetry and a danger that agents may not always operate in the principals' best interests when they are given tasks and decision-making authority by principals. Agents frequently possess more in-depth knowledge of the day-to-day operations of the firm, but principals have limited access to this information, leading to this information asymmetry (Jensen and Meckling, 2019). This gives the CEO a lot of authority. As a result, there's a chance that managers will try to accomplish their goals at the expense of the owners of the company and the broader community. To address this concern, various control mechanisms, including those of the board of directors, are implemented. Agency theory has been extensively involved in corporate governance literature that has focused a lot on the relationship between board of directors characteristics and company performance because of their important roles, and some of these important roles are hiring a new CEO or changing a current one. As the CEO is the one who formulates firm strategies and supervises performance, his roles impact all firms' performance aspects. The association between CEO turnover and performance has predominantly been examined through the lens of corporate financial performance by using different measurements. CEO turnover gained significance in the 1980s, with pioneering studies being conducted during that period. The relationship between financial distress, poor performance, and CEO turnover has been examined in prior literature to create a better understanding of management's decisions.

In Germany, Kaplan (1995) examined CEO's turnover and firm performance within the largest German companies during the 1980s, and he indicated that CEO turnover is positively associated with poor earnings and stock performance; meanwhile, there is no significant relationship between CEO turnover and growth of sales or earnings. In

addition, Rachpradit et al. (2012) have indicated that the likelihood of CEO turnover is unrelated to business performance when a CEO works beyond retirement age.

As well, there were many attempts in the literature to prove the negative relationship between CEO turnover and firm performance, like Lausten (2002), using different measures to confirm the consistency of this expected result with agency theory, where more replacements mean a less successful period for the company and fewer turnovers mean that CEOs are acting in the shareholders' best interest. Elsaid (2014) study results line up with our last discussion, where he examined the impact of the educational background changes of the CEO on the probability of the firm's bankruptcy and found that the replacement of a CEO with specific educational and experience skills has a negative correlation with the percentage change in the firm's performance. Thus, a change in the CEO's functional and educational background is strongly correlated with the percentage change in the firm's bankruptcy probability.

On the other hand, a positive relationship between CEO turnover and firm performance is notable when CEO turnover is followed by the appointment of an external CEO (Lafuente and García-Cestona, 2019). Similarly, the positive impact of a CEO change on performance is more pronounced when it occurs after a period of underwhelming performance (Finkelstein et al., 2009).

Based on literature mentioned earlier the next hypothesis was developed:

**H<sub>2c</sub>** : There is a significant impact of CEO's turnover on sustainable growth rate.

#### **1.6.5.4 CEO's age and sustainable growth rate**

The upper-echelons theory assumes that companies managed by younger executives are more likely than those run by older managers to embrace riskier methods. Practices like financial leverage, product innovation, and unconnected diversification all demonstrate this propensity for taking risks. Additionally, compared to industry averages, organizations run by younger managers can anticipate both stronger growth and greater unpredictability in profitability. In an attempt to convey their capabilities, younger managers frequently exaggerate their investment activity and highlight their personal convictions. Conversely, it has been argued that CEOs who are older tend to be more risk-averse. To maintain the status quo, protect their careers, and lead more peaceful lives at work, they are more inclined to make cautious decisions. Due to their tendency toward

risk aversion, older CEOs may be less willing to participate in higher-risk companies, which could have a detrimental effect on the firm's total investment. More to the point, older managers are reluctant to change how they invest because they fear that doing so would be seen as an acknowledgment of their previous poor decisions. Hambrick & Mason's (1984) assumptions regarding top managers' age have been examined in literature, where some studies have investigated the relationship between CEO's attributes and various performance measures like sustainable growth rate and found that some of the CEO's attributes, like age, have a negative relationship with business sustainability, whereas tenure appears to have a strong and favorable relationship with corporate sustainability (Mukherjee & Sen, 2022). Bhabra and Zhang (2016), in their research, utilizing a dataset comprising 1,940 CEOs in 1390 manufacturing companies, observed a negative correlation between CEO age and both firm growth and market value, and that the size of the firm determines the relationship between age and corporate profitability. More precisely, when it comes to performance, they found that younger CEOs of small companies have a positive correlation with profitability, while older CEOs of large companies have a negative correlation. However, Stephen Oloo Kokeno & Muturi (2016) examined in their study the impact of CEO attributes on firm performance, focusing on all firms listed at the Nairobi Securities Exchange (NSE), and the results revealed a positive and significant relationship between CEO age and firm performance. As the majority of CEOs are old, there is a compelling argument for diversifying the management team to benefit from the skills and capabilities of younger individuals, and this stems from the belief that age diversity allows companies to tap into the varied experiences, knowledge, and skills of all individuals. At the same time, sometimes CEO age doesn't have an important impact on profitability or performance. Ahmad et al. (2022) have indicated in their study that CEO age has no significant impact on firm performance.

It's important to be aware that young and newly experienced CEOs need to be careful with firm performance, considering that enhancing firm performance does not only mean raising sales revenues, assets, and profit but, alternatively, being able to plan for reaching the most suitable level for each of those in order to achieve the company's sustainable growth. In Europe, a study has explored CEO age and its relationship with firms' growth and found that companies led by youthful CEOs expand quicker in terms of revenue and assets, but not profitably (Barba Navaretti et al., 2021).

Accordingly, the researcher developed next hypothesis:

**H<sub>2a</sub>:** There is a significant impact of CEO's age on sustainable growth rate.

**Table (2)**

*Summary of CEO characteristics and SGR related prior literature results*

<b>Characteristic</b>	<b>Positive</b>	<b>Negative</b>	<b>Insignificant</b>
Education	(XiaoFang Tan et al., 2021) (Saidu, 2019) (Ghardallou et al., 2020) (Suherman et al., 2023) (Naseem, Lin, ur Rehman, Ahmad, & Ali, 2019)	(Boadi and Osarfo, 2019; Kanakriyah, 2021)	(Bhagat, Bolton, & Subramanian, 2010) (Ahmad, Prasetyo, Buchdadi, Widyastuti, & Kurniawati, 2022). (Mukherjee & Sen, 2022).
Experience	(Al-Matari, 2020)(Saleh, Shurafa, Shukeri, Nour, & Maigosh, 2020).(Liangcheng Wang, Ziyue Tian, Xiezheng Wang, & Tao Peng, 2023).	(Serra, Tres, & Ferreira, 2016)	(Yao, 2021)
Turnover	(Lafuente & García-Cestona, 2019) (Finkelstein, Hambrick, & Cannella, 2009)	(Elsaid, 2014) (Lausten, 2002)	(Kaplan, 1995) (Rachpradit et al., 2012)
Age	(Stephen Oloo Kokeno & Muturi, 2016)	(Mukherjee & Sen, 2022). (Bhabra & Zhang, 2016)	(Barba Navaretti, Castellani, & Pieri, 2021). (Ahmad et al., 2022)

### **1.6.6 Sustainable growth rate and share prices**

The concept of sustainable growth rate is widely acknowledged as a significant determinant of corporate performance. It is particularly important to address the problem of achieving maximum growth without taking on additional debt or issuing new shares. It serves as a crucial metric for businesses to evaluate the profitability and performance of their companies, monitor the performance, and make the required changes in the company's policies to achieve sustainable growth. The sustainable growth rate and its impact on stock returns are another significant issue that has received little attention from scholars (Lockwood and Prombutr, 2010). As operational and financial measurements are combined into one measure like SGR, it is a valuable tool for managers to use, as it would reflect their value and help them evaluate the current firm situation and make the right decisions regarding the suitable policies for the company. Recently, few studies have shed light on SGR determinants, and a Malaysian study has investigated the impact of SGR determinants on a company's share price and the findings revealed that managers' decisions regarding SGR components would have a significant influence on SGR and the company's share price as well (Rahim et al., 2019). Additionally, Qaim et al. (2021) aimed to assess the influence of short-term firm performance and long-term financial sustainability on the stock prices of all manufacturing firms listed on the Pakistan Stock Exchange. Their findings indicated that both short-term and long-term financial performance affect the stock prices of firms. Specifically, firm performance, represented by ROA, and firms' financial sustainability, reflected by SGR, both exhibit a significant influence on stock prices. On the other hand, other studies in Johannesburg have investigated the SGR effect on share price fluctuations and found that approximately 52% of firms in the determined sample showed a positive correlation between share prices and SGR, while 48% of these firms showed a negative correlation between them (Evelyn Madoroba and Kruger, 2015). Accordingly, the researcher developed the next hypothesis:

**H<sub>3</sub>:** There is significant impact of sustainable growth rate on share price.

### **1.6.7 Sustainable growth rate mediating role between CEO's characteristics and share price**

There are several ways in which a CEO can impact a company's share price. A company's stock price may rise as a result of, for instance, successfully implementing business plans and achieving favorable financial results (Vijayakumar, 2010); the CEO's management and leadership style can affect investors positively; and the CEO's performance has a significant impact on the market's perception of the company. Investors are more likely to see a CEO who is perceived as a strong leader with a clear vision positively, which could lead to an increase in the stock price of the company (Gaines-Ross, 2000). A company's stock price is greatly impacted by the CEO's decision-making on strategic matters, including product releases, market entry, and acquisitions. Effective strategic decisions that support profitability and growth boost investor confidence and have a favorable effect on the stock price of the company.

Usually, researchers have investigated the impact of CEO attributes on firm performance using measures like ROA, ROE, Tobin's Q, or sales growth. Others have examined some of the CEO's characteristics with one of the SGR components, like Kumshe et al. (2020), when they examined the influence of CEO attributes on dividend policy by using a sample of 64 companies in Africa and revealed that CEO's nationality and ownership have a strong association with dividend payout. As well, prior literature has examined some of the SGR components impacting share price, like Raza et al. (2018) when they've examined previous literature and theories regarding the dividend payout effect on firms' share price, they have explained three viewpoints related to this relationship, where according to the first one, a higher dividend payment will raise the company's worth, which will be reflected in the share price (Attah-Botchwey, 2014). On the other hand, the second point of view asserts that a larger dividend payment would reduce the company's worth and cause the share price to drop (Walter, 1956). The third viewpoint holds that the dividend policy has no bearing on the firm's worth or share price, and researchers concluded that although there has been extensive discussion and research to support those three viewpoints, the information available is inconclusive and does not fully elucidate the relationship between dividend policy and share price. However, in this research, we are not addressing a specific component of SGR; instead, we are taking total SGR as a measurement tool that would reflect the CEO's operational and financial decisions and

examining if this tool would mediate the impact of CEO characteristics on the company's share price. Literature involving SGR as a mediator is limited. A Malaysian study examined the impact of SGR determinants on a company's share price using SGR as a mediator and found that capital structure, profitability, dividend policy, and firm size indirectly affect share price through SGR (Rahim et al., 2019). Furthermore, some researchers have used other performance measures as a mediator in their research, Machdar (2019) used Tobins' Q to examine its mediating role in the relationship between CEO turnover and stock performance, and the results revealed that CEO replacement has a positive impact on both company's performance and stock price, but firm performance doesn't have a mediating role in this relationship, meanwhile, One of the financial elements of SGR like capital structure have been used to examine if it mediates CEO attributes effect on firm performance in Pakistani firms for the period 2009-2015 and the results indicated that company's capital structure partially mediates this relationship (Naseem et al., 2020). Liu et al. (2016) have decided to dive deep into the CEO characteristics and firm performance relationship because different studies have focused on different aspects of the relationship between CEO qualities and business success, resulting in a disorganized and fragmented body of research. As a result, they've focused on improving the comprehension of executive functioning by bringing together different theoretical viewpoints. So they've developed a sequential mediation process model that identifies relationships between the success of the company and the qualities of the CEO. The top management team (TMT) and organizational procedures are included in their model as multilevel mediating mechanisms that connect CEO traits, including CEO emotion and cognition, to outcomes in company performance. In this study, the researcher assumes that the resultant SGR represents a conclusion about CEOs interactions and collaborations with TMT and the strategic decisions they have made, which are affected by each's characteristics. Drawing from the, this study proposes that the impact of CEO attributes on a company's share price is mediated by the company's sustainable growth.

**H4:** Sustainable growth rate has a mediating impact on the relationship between CEO's characteristics and share price.

**Table (3)**

*Summary of hypothesizes developed in this research*

<b>Hypothesis</b>	<b>Content</b>
H <sub>1</sub>	There is a significant impact of CEO characteristics on share price.
H <sub>1a</sub>	There is a significant impact of CEO's education on share price.
H <sub>1a</sub>	There is a significant impact of CEO's education on share price.
H <sub>1b</sub>	There is a significant impact of CEO's experience field on share price.
H <sub>1c</sub>	There is a significant impact of CEO's turnover on share price.
H <sub>1d</sub>	There is a significant impact of CEO's age on share price.
H <sub>2</sub>	There is a significant impact of CEO characteristics on sustainable growth rate.
H <sub>2a</sub>	There is a significant impact of CEO's education on sustainable growth rate.
H <sub>2b</sub>	There is a significant impact of CEO's experience field on sustainable growth rate.
H <sub>2c</sub>	There is a significant impact of CEO's turnover on sustainable growth rate.
H <sub>2d</sub>	There is a significant impact of CEO's age on sustainable growth rate.
H <sub>3</sub>	There is significant impact of sustainable growth rate on share price.
H <sub>4</sub>	Sustainable growth rate has a mediating impact on the relationship between CEO's characteristics and share price.
H <sub>4a</sub>	Sustainable growth rate has a mediating impact on the relationship between CEO's Education and share price.
H <sub>4b</sub>	Sustainable growth rate has a mediating impact on the relationship between CEO's age and share price.
H <sub>4c</sub>	Sustainable growth rate has a mediating impact on the relationship between CEO's experience and share price.
H <sub>4d</sub>	Sustainable growth rate has a mediating impact on the relationship between CEO's turnover and share price.

## **Chapter Two**

### **Research Methodology**

#### **2.1 Introduction**

This study examines the effect of CEO characteristics on the share price through the mediating role of sustainable growth rate. The study investigates the effect on the emerging economies of Palestine and Jordan. This chapter presents the study methodology, variable measurement, research population, and data collected and their sources.

#### **2.2 Data Collection**

The data source is secondary data which was primarily sourced from the annual reports of manufactured companies listed on both the Palestine Securities Exchange and the Amman Stock Exchange and the Palestine Civil Registry for the period 2016–2022, where PEX and ASE are used to represent emerging economies. The structural model in this study consists of the CEO's education, experience, turnover, and age as independent variables. Share price is the dependent variable, and sustainable growth rate is a mediating variable, while firm size, age, and leverage are control variables. Academicians and policymakers continue to regard manufacturing as a growth engine due to the multifaceted benefits it provides for economic growth and development (Arjun K et al., 2020). As a result, the researcher chose the industrial sector to examine the CEO attribute's impact on SGR and SP.

#### **2.3 Research Population**

The research population comprised of the manufacturing sector. Where all manufacturing companies in PEX were included as they met the research criteria. In addition, almost all Jordanian companies in the industry sector except for one was included as well. These criteria involved being listed on either the PEX or ASE between 2016 and 2022, with the stipulation that selected companies had not undergone bankruptcy, merger, or liquidation within this timeframe, and that all necessary data for the study period were accessible.

**Table (4)***Summarized Research Population*

<b>Market</b>	<b>Sector</b>	<b>Population</b>	<b>Met the criteria</b>	<b>%</b>
PEX	Industry	11	11	25.5%
ASE	Industry	33	32	74.5%
	<b>Total</b>	<b>44</b>	<b>43</b>	<b>100%</b>

## 2.4 Variables Measurement

### 2.4.1 Independent Variables

In prior literature, various metrics have been employed to gauge the educational background of CEOs. Jalbert et al. (2002) utilized degrees earned and the number of years of education as key variables. On the other hand, Darmadi (2011) has employed four distinct proxies—postgraduate degrees, degrees from renowned universities, degrees from affluent countries, and degrees in financial subjects—to represent CEO education. Additionally, several studies have adopted a coding system, assigning code 1 to CEOs with professional, postgraduate, or PhD degrees and code 0 to those without such qualifications (Mukherjee & Sen, 2022; Saidu, 2019).

Experience measurement has been identified in prior literature in various ways. Some of them considered CEO experience as the company's industry experience and how many years they've spent working in similar industries. For example, a binary variable named "experience" was employed to assess the professional expertise of CEOs. It assumed a value of 1 if the CEO possesses industry-specific expertise relevant to their current position and 0 otherwise (Ghardallou et al., 2020).

However, the researcher in this study is going to use the same measurement that XiaoFang Tan, Tongyu Fang, & Dong (2021) have used in their research, where CEO's financial background consists of two elements: financial education, measured by using code 1 if CEOs hold a degree in finance, financial management, accounting, auditing, or MBA, and using code 0 otherwise. Regarding the financial experience variable, a code of 1 is assigned if CEOs have previously held positions as finance directors, CFOs, or involved in accounting auditing or similar tasks. Similarly, having relevant financial qualifications, such as national-certified professional certificates such as Chartered Financial Analyst,

Certified Public Accountant, and Middle or Senior Accountant, also leads to a code 1. The code is set to 0 otherwise.

Previous studies support the assumption that CEO age shapes CEOs financial decisions and attitudes towards risk preferences and risk-taking behavior, which improves firm performance. There are different points of view concerning the effect of a CEO's age on a firm's performance. Some of them assume that younger CEOs avoid taking radical actions when they face high risks and that older CEOs make more rational decisions than younger CEOs because younger CEOs don't have enough experience and understanding of the company. Other points of view believe that older CEOs take fewer risks and have a lower probability of suggesting new ideas. And according to Stephen Oloo Kokeno and Muturi (2016) and Mukherjee and Sen (2022), CEO age equals how old he was at that specific year, and this measure is the one used in this study. However, some other literature have measured CEO age using natural logarithm (Serfling, 2014).

And when it comes to management's decision regarding CEO replacement, some research paid attention to whether it was voluntary or disciplinary turnover to examine its impact on firm performance. In order to reflect reasons for replacements, a 0 code would reflect no replacements, while disciplinary replacement would take a code of 1, and finally, if CEO turnover was voluntary, a code of 2 would be assigned (Bhagat et al., 2010). On the other hand, Dardour et al. (2018) have measured the CEO turnover variable by assigning a value of 1 when the company changes its CEO within the year and a value of 0 otherwise, and this is the measurement chosen in this study.

#### **2.4.2 Dependent Variable**

A company's share price formulates an investor's first impression of a company as It mirrors the company's value, representing what the public is prepared to pay for a stake in the company. Supply and demand determine the initial share price of a firm once it goes public and lists its shares on an exchange (Draho, 2004). The dynamics of supply and demand in the market have an impact on stock price fluctuations. Prices increase when demand exceeds supply, whereas prices decrease when supply is in excess of demand. Over time, however, share prices are significantly shaped by the business's economic fundamentals (Talla, 2013). As share price is considered an important measure for investors (Sharma, 2011), the volatility of stock returns has been investigated by

researchers as it represents possible risks for investors. So much literature has tried to examine potential reasons and determinants like managers financial policies (Ilaboya and Aggreh, 2013). To measure the share price variable, researchers have used the company's daily stock prices (Qaim et al., 2021), the annual closing share price (Puspitaningtyas, 2017), or the difference between the initial stock price and the ending stock price, divided by the ending stock price (Abdullahi et al., 2023; Alswalmeh and Mohd Dali, 2019). In this study the annual closing price is going to be used to measure company's share price.

### **2.4.3 Control Variables**

In this research, we are examining the impact of one or more independent variables on a dependent variable, so ensuring the accuracy of the findings necessitates the control of variables that may impact research outcomes. Therefore, in this research, we control three variables that have been controlled in similar prior literature: firm size, firm age, and firm leverage.

The size of a firm can indirectly affect the firm's share price. A CEO of a small business has more opportunities to know everything about the company and learn more about its operations. Thus, this factor will enable the CEO to respond quickly and effectively position the firm, ultimately impacting the firm's success (Ofe, 2012). To measure firm size, some researchers decided to use the natural logarithm of annual sales to determine the firm's size like Koyuncu et al. (2010), while other literature has used the natural logarithm of firms' annual total assets (Fooladi, 2012; Peni, 2014), the value is derived from the firms' annual reports. Ferry Christian Samosir (2018), in his exploration of firm size impact on firm performance, agreed with Raza & Karim (2016) that a company's size positively influences firm performance.

Ferry Christian Samosir (2018) indicated in his research results that firm age has also a positive association with firms' profitability, which he's measured using ROA. Moreover, regarding firm age, Akben-Selcuk (2016), attempted to answer the question of whether a firm's age affects its profitability or not using a sample of listed Turkish companies, and the results revealed an inversal relationship between a company's age and profitability. The term "firm age" can be defined in different ways. Some researchers considered firm age to be the period when a firm's stocks are traded in the stock market (Shumway, 2001), while Loderer and Waelchli (2010), suggested that firm age is calculated from the time it

has legal status which is in line with (Bathula, 2008; Loderer and Waelchli, 2010; Ofe, 2012). However, in this study, the researcher measured firm age using the natural logarithm, which goes in line with (Ferry Christian Samosir, 2018; Yasuda, 2005).

Companies have two choices to fund asset acquisitions: borrowing money or issuing equity. What represents companies' choices among these two alternatives is the leverage ratio, which equals the company's total debt divided by the company's total equity. The debt-to-equity ratio is a type of financial measure that is used to assess a company's ability to fulfill its financial responsibilities (D'Hulster, 2009). Samosir (2018) found no significant influence of firm leverage on a company's performance (ROA). Additionally, Karima & Ghazali (2023) attempted to understand the effect of firms' leverage on share prices and found no significant relationship between beverage industry firms' leverage and their share prices. Conversely, Ouso (2012) examined the impact of leverage on firms' value by utilizing a dataset of 47 companies listed on the Nairobi Securities Exchange, and he found a significant positive relationship between a company's leverage and share prices. In this research, we use the debt-to-equity ratio as a control variable in line with (Ahmad et al., 2022; Mubeen et al., 2021; Saleh et al., 2020).

#### **2.4.4 The Mediator variable**

In a causal chain, mediator variables are located between the cause and the effect. Stated differently, they symbolize the processes by which an alteration in one variable triggers a later alteration in another (Fritz and Lester, 2016). The maximum achievable growth rate of a firm, known as sustainable growth, is determined based on its financial, operational, managerial conditions, and policies (Listiani and Supramono, 2020). Higgins (1977) introduced the concept of SGR within a discrete-time framework, and then he started to expand his concept to a continuous-time framework in 1981. His model consists of the following four accounting ratios: capital structure, profit margin, asset turnover, and dividend payment. On the other hand, the Van Horne (1987) model for measuring SGR included the company's dividend policy, financial capacity, and sales performance. These two models have been employed in prior literature to measure corporate sustainable growth, as they are not constrained to specific businesses. Furthermore, a number of assumptions made by both models are comparable, such as the significance of debt and retained earnings, steady-state variables, and the lack of fluctuations in equity funding. Variations in debt, retained earnings, and assets are also taken into account by these

estimators (Fonseka et al., 2012). Although Van Horne's model is easier to use than Higgins' model since it makes the assumption that the debt-to-equity ratio is constant, it can only provide a conservative estimate of a firm's growth rate. Higgins' model, in comparison, is more extensive and necessitates a variety of inputs. Additionally, compared to Van Horne's model, it is more responsive to changes in financial parameters (Fonseka et al., 2012). Therefore, this research has used Higgins' model (Higgins, 2016) in line with (Liu, 2012; Mukherjee & Sen, 2022), where SGR is measured using the following equation:  $SGR = P * R * A * T$ .

Where P represents the profit margin, R signifies the firm's retention rate calculated as one minus dividend payout ratio (Abrams, 2003), A denotes the asset turnover, and T' corresponds to the asset-to-equity ratio, calculated by dividing assets by the beginning-of-period equity rather than the end-of-period equity. A company with higher SGR indicates proficient management of payables, receivables, and inventory, SGR allows financial managers and investors to promptly evaluate the feasibility of a company's financial and operational strategies for increasing sales and determine if they can lead the company to sustainable growth and success. (Mumu et al., 2019).

**Table (5)***Summary of variable measurements*

	<b>Variable</b>	<b>Measurement</b>	<b>Previous studies</b>
Independent variables	CEO's Education	Code 1 if CEOs holds a degree in finance, financial management, accounting, finance, auditing and MBA, and use code 0 otherwise.	(XiaoFang Tan, Tongyu Fang, & Dong, 2021)
	CEO's Experience	Dummy variable, If CEO worked in financial or accounting position or have professional financial qualification then 1, 0 otherwise.	(XiaoFang Tan, Tongyu Fang, & Dong, 2021)
	CEO's turnover	Is equal to 1 if the firm replaces its CEO during the year and 0 otherwise	(Dardour, Boussaada, Yekini, & Makhoulouf, 2018)
	CEO's Age	Age of CEO at period t	(Stephen Oloo Kokeno and Muturi, 2016) and (Mukherjee and Sen, 2022)
Mediator	SGR	$SGR = P * R * A * T'$	(Higgins, 2016; Liu, 2012; Mukherjee and Sen, 2022)
Dependent	Share Price	The close stock price at the end of the year	(Puspitaningtyas, 2017)
Control	Firm Size	The natural logarithm of annual sales to determine the firm's size	(Koyuncu et al., 2010; Zhang, 2008)
	Firm Age	The natural logarithm of the difference between the year and the time since a company was established	(Ferry Christian Samosir, 2018; Yasuda, 2005)
	Firm Leverage	Total debt/Total equity	(Ahmad et al., 2022; Mubeen, Ahmed, Iqbal, & Arif, 2021; Saleh et al., 2020).

## **2.5 Research Design**

Utilizing data from a sample of listed manufacturing companies in Palestine and Jordan, a quantitative research design is applied to explore the influence of CEO characteristics on share price. Additionally, the study investigates whether sustainable growth serves as a mediator between CEO attributes and firms' share prices. Our 2016–2022 data came from 43 companies belonging to the industrial sector in PEX and ASE, which constitute the panel data. Stata. 14 software is used to apply multivariate regression analysis in order to investigate the impact of CEO characteristics on share price. In addition, the causal steps method (Baron and Kenny, 1986) was used to examine the mediating effect of sustainable growth rate on the relationship between CEO characteristics and SP.

## **2.6 Research Model**

As per Baron and Kenny (1986) framework, mediation in relationships between variables is established when the following conditions are met:

1. Independent variables (IV) exhibit significant impacts on the dependent variable (DV).
2. IV demonstrates significant effects on the mediator.
3. The mediator shows a significant impact on the DV.
4. When the mediator's influence is considered, the effect of an independent variable (IV) on the dependent variable (DV) diminishes.

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4. When the mediator's influence is considered, the effect of an independent variable (IV) on the dependent variable (DV) diminishes.

Research Models:

$$SP_{it} = \alpha + \beta_1 CEDU_{it} + \beta_2 CEXP_{it} + \beta_3 CTURN_{it} + \beta_4 CAGE_{it} + \beta_5 FSIZ_{it} + \beta_6 FAGE_{it} + B_7 FLEV_{it} + \varepsilon \dots \dots \dots (1)$$

$$SGR_{it} = \alpha + \beta_1 CEDU_{it} + \beta_2 CEXP_{it} + \beta_3 CTURN_{it} + \beta_4 CAGE_{it} + \beta_5 FSIZ_{it} + \beta_6 FAGE_{it} + \beta_7 FLEV_{it} + \varepsilon \dots \dots \dots (2)$$

$$SP_{it} = \alpha + \beta_1 SGR_{it} + \beta_2 FSIZ_{it} + B_3 FAGE_{it} + B_4 FLEV_{it} + \varepsilon \dots \dots \dots (3)$$

$$SP_{it} = \alpha + \beta_1 CEDU_{it} + \beta_2 CEXP_{it} + \beta_3 CTURN_{it} + \beta_4 CAGE_{it} + \beta_5 SGR_{it} + \beta_6 FSIZ_{it} + B_7 FAGE_{it} + \beta_8 FLEV_{it} + \varepsilon \dots \dots \dots (4)$$

**Where:**

**SGR:** sustainable growth rate that a company expects to see in long term.

**SP:** Share price of the company.

**CEDU:** CEO's education.

**CEXP:** CEO's experience.

**CAGE:** CEO's age.

**CTURN:** CEO's Turnover.

**FSIZ:** Firm size.

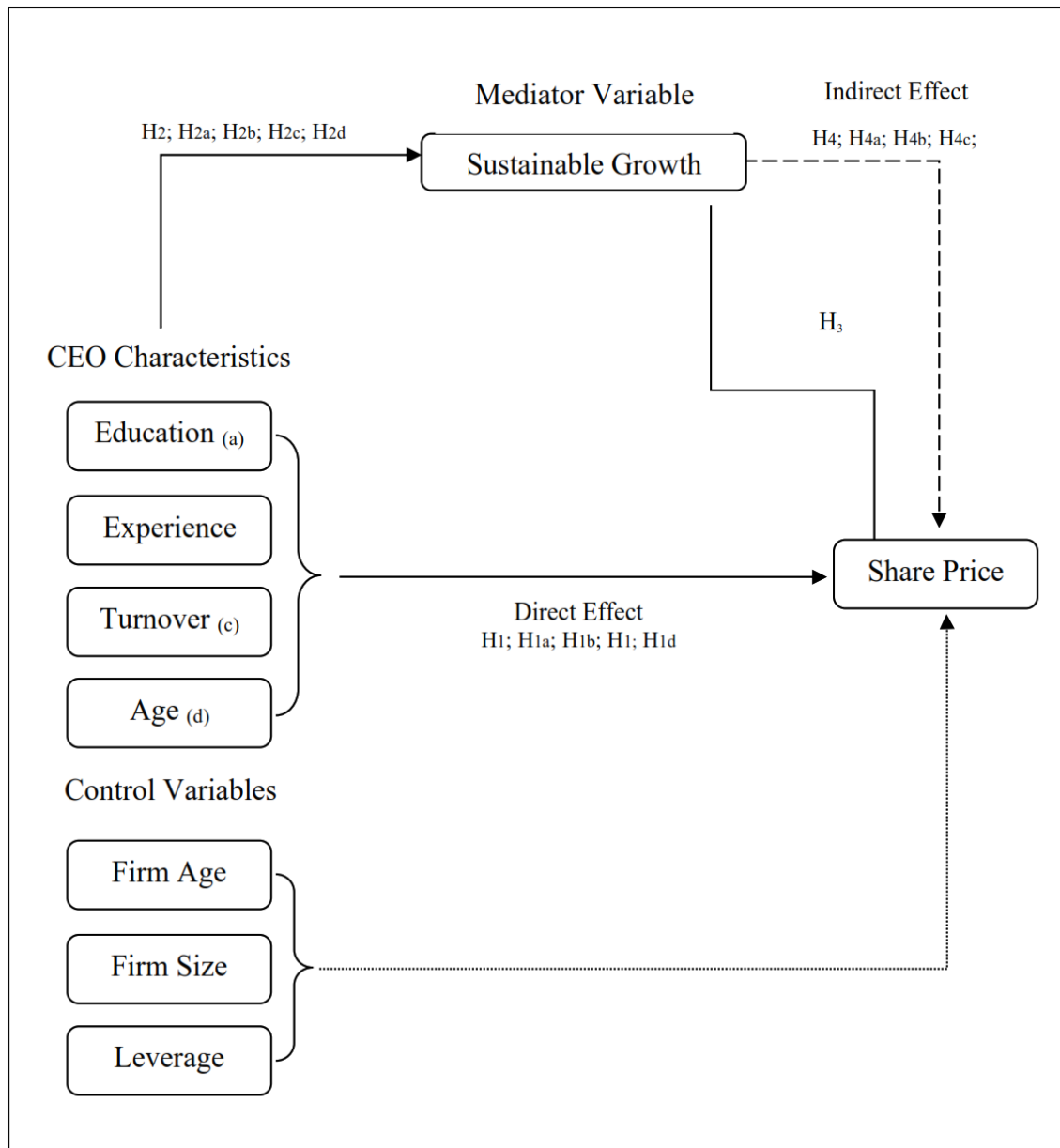
**FAGE:** Firm age.

**FLEV:** Firm leverage

**ε:** Error term, **t:** year, **i:** firm **α** : constant

**Figure (1)**

*Conceptual Framework*



Source: Constructed by Researcher.

## Chapter Three

### Research Analysis and Results

#### 3. Research Results

##### 3.1 Descriptive Analysis

Considering the summarized statistics provided in Table 6, The results indicate that the average value of SP is 2.189, as were the maximum and minimum values of 10.45 and 0.26, respectively, and the standard deviation is 2.31. The maximum of the CEO's EDU, EXP, and TO was 1, while the minimum value was 0, with a mean value of 0.465, 0.226, and 0.1 and a standard deviation of 0.5, 0.419, and 0.3, respectively. Additionally, the last independent variable CEO's AGE average value was 55.947, while the results indicate 82 and 32, respectively, for the maximum and minimum values, with a standard deviation of 10.304. Regarding the study mediator, SGR had a mean of 0.027, a maximum value of 0.187, and a minimum value of -0.207, while the standard deviation for SGR was 0.1. Finally, the research's control variables descriptive statistic results indicated a mean of 17.065, 3.365, and 0.688, respectively, for FSIZE, FAGE, and FLEVER, besides a standard deviation of 1.039, 0.565, and 0.607 for each.

**Table (6)**

*Descriptive Statistics for Palestine & Amman Exchange from 2016 to 2022*

<b>Variables</b>	<b>Mean</b>	<b>Min</b>	<b>Max</b>	<b>Std. Dev.</b>	<b>Skewness</b>	<b>Kurtosis</b>
SP	2.189	0.26	10.45	2.31	2.396	8.862
EDU	0.465	0	1	0.5	0.14	1.02
EXP	0.226	0	1	0.419	1.311	2.718
TO	0.1	0	1	0.3	2.673	8.144
AGE	55.947	32	82	10.304	0.201	2.611
FSIZE	17.065	15.192	18.985	1.039	-0.003	2.105
FAGE	3.365	2.303	4.174	0.565	-0.356	2.011
FLEVER	0.688	0.115	2.295	0.607	1.34	3.875
SGR	0.027	-0.207	0.187	0.1	-0.667	3.025

Note: SGR, SP, FSIZE, and FLEVER variables are in Jordanian dinars. Companies' variables listed in dollar currencies in PEX were transferred to Jordanian dinars.

### **3.2 Normality, Heteroscedasticity and Correlation Matrix**

To enhance the validity and precision of the data for analysis, the study initially excluded any outlier numbers from the dataset, so the researcher has winsorized the raw values at the top 5% of each continuous variable (Schmidt and Wilkins, 2013). Normality refers to a characteristic of a random variable following the normal distribution. It holds major importance in both theoretical and practical statistics, as many theoretical statistical procedures rely on the notion that data or test statistics obtained from a data sample adhere to a normal distribution. As a result, because normality is essential to statistical analyses, comprehending the most effective method for evaluating normality will greatly improve sample data analysis. To evaluate normality, two measurements of form can be used: excess kurtosis and skewness. Skewness measures how symmetrical a variable's distribution is and if it leans more toward one tail than the other. Kurtosis, on the other hand, gauges a dataset's deviation from the normal distribution and offers information on the dataset's shape and tail behavior (Georges Hatem et al., 2022). When skewness values fall between (-3 and +3), they are deemed acceptable (Griffin & Steinbrecher, 2013), and Table 6 shows skewness values for all variables where all values are accepted, as CEO turnover represents the highest skewness value, which is  $2.673 < 3$ , while SGR, with a skewness value of  $-0.667 < -3$  represent the lowest skewness value. However, regarding the Kurtosis test, DeCarlo (1997) indicated that, as a conservative rule of thumb, kurtosis index absolute values greater than 10.00 seem to suggest a possible problem, and values more than 20.0 might suggest a more serious issue. Table 6 shows that kurtosis values for all variables are less than 10, which, according to DeCarlo, represents no problem. Moreover, when data diverge from a statistical homoscedasticity assumption, this is referred to as heteroscedasticity, which is a systematic alteration in the dispersion of the residuals over the whole observed value range; thus, it means unequal scatter. When the homoscedasticity assumption is broken, this can lead to higher Type I error rates or worse statistical power. Ignoring heteroscedasticity could have serious consequences for theory, research, and real-world applications since it can significantly affect substantive conclusions, especially that the assumption behind ordinary least squares (OLS) regression is that all residuals are drawn from a homoscedastic population, or a population with a uniform variance (Rosopa et al., 2013). Consequently, the Breusch-Pagan / Cook-Weisberg test was employed to identify heteroscedasticity and validate the model's constant variance.

The result indicated that the data is significantly heteroscedastic, as the p-value for the test is less than 0.05. However, heteroscedasticity is not a problem when robust regression is used for testing research hypotheses and result evaluation to get rid of the normality problems. Additionally, testing how much variables are correlated with each other is important when using OLS-Regression, as testing correlation assists in measuring the strength of the relationship between all dependent, independent, control, and mediator variables to ensure that there is no multicollinearity problem. Table 7 correlation matrix reflects the check of multicollinearity between variables, and according to (Tabachnick et al., 2013), if correlation values are less than 0.8, then there is low and weak association. Conversely, if the correlation value between two variables exceeds 0.8, then there is a strong relationship between them. Our correlation matrix results indicated mostly low correlations between variables, as the highest correlation of 0.444 was observed between SGR and firm leverage, which is considered to be lower than 0.8, confirming the absence of multicollinearity.

**Table (7)**

*Correlation Matrix*

<b>Variables</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>	<b>(6)</b>	<b>(7)</b>	<b>(8)</b>	<b>(9)</b>
(1) SP	1								
(2) EDU	0.065	1							
(3) EXP	-0.018	0.324	1						
(4) TO	0.03	0.157	-0.047	1					
(5) AGE	0.047	-0.237	-0.132	-0.095	1				
(6) FSIZE	0.311	0.057	-0.072	0.069	0.153	1			
(7) FAGE	0.359	0.108	-0.134	0.1	0.214	0.034	1		
(8) FLEVER	-0.221	0.082	-0.021	0.06	-0.208	0.188	-0.095	1	
(9) SGR	0.443	-0.079	0.036	-0.075	0.169	0.111	0.093	-0.444	1

### 3.3 Multiple Regression results

**Table (8)**

*Robust Regression analysis results of CEO characteristics and Share price*

SP	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
EDU	-0.069	0.266	-0.26	0.794	-0.593 0.454	
EXP	0.198	0.273	0.72	0.47	-0.34 0.735	
TO	-0.195	0.449	-0.43	0.664	-1.079 0.688	
AGE	-0.033	0.011	-2.95	0.003	-0.056 -0.011	***
FSIZE	0.845	0.148	5.72	0	0.554 1.136	***
FAGE	1.47	0.261	5.63	0	0.956 1.984	***
FLEVERAGE	-1.087	0.19	-5.72	0	-1.461 -0.713	***
Constant	-14.563	2.6	-5.6	0	-19.679 -9.447	***
R-squared	0.301	<b>No of obs</b>	301		*** P < 0.01	
F-test	8.04	<b>Prob &gt; F</b>	0		**P < 0.05	

Table 8 shows the results of the robust regression for CEO characteristics. The SP model has been considered statistically significant and valid  $F = 8.040$ ,  $P < 0.01$ ; the  $R^2$  within the model was 30%, which means that the variations in the CEO characteristics explain almost 30% of the variation in the SP. Therefore, given the results being statistically significant for the SP model, H1 and H1d are supported as P-values for the overall model, and CEO age is less than 0.05, while H1a, H1b, and H1c are not supported as the P-values for CEO education, experience, and turnover are equal to 0.794, 0.47, and 0.664, respectively, which is more than 0.05, indicating an insignificant relationship between these attributes and share price. When all other variables are held constant, the coefficients column shows the relative influence of each independent variable on the dependent variable SP. Each coefficient's statistical significance is shown by its t-value. Consequently, the coefficient values for CEO education, turnover, and age are equal to -0.069, -0.195, and -0.033, respectively, which indicates the negative association between these attributes and share price. On the other hand, the coefficient value for CEO experience is equal to 0.198, which represents the positive association between CEO experience and the company's share price. Moreover, the P-values for the models' control variables represented in Table 8, namely, firm size, firm age, and firm leverage, were less than 0.05, reflecting their significant impact on the company's share price. As for their coefficient values, Table 8 shows a coefficient of 0.845 for firm size and a coefficient of

1.47 for firm age. This reflects that a company's size and age affect the company's share price positively. Conversely, Table 8 shows a coefficient of -1.087 for firm leverage, which means that leverage negatively affects a firm's share price. The "constant" variable has a coefficient of -14.563, indicating that when all other variables are held constant, the predicted value of the dependent variable SP would be -14.563. With a t-value of -5.6 and a p-value below 0.01, the constant demonstrates statistical significance. Concerning the mediation effect of sustainable growth rate, Model 3 in Table 9 below presents the results of SGR mediating the relationship between CEO characteristics and share price. Baron and Kenny's (1986) four conditions for the mediating effect are going to be examined for each independent variable. Model 1 statistical indicators were discussed previously, representing the impact of all independent and control variables without controlling SGR on share price. Model 1 results as a whole have met the first condition of mediation that Baron and Kenny (1986) have discussed, as the overall CEO characteristics have a significant impact on the share price in manufacturing companies in PEX and JSE. Now, we are going to present the statistical results of Models 2 and 3 to discuss if they meet mediation conditions. Table 9 presents in Model 2 the impact of CEO characteristics on firm SGR as a whole. Model 2 represents that there is a significant impact of the CEO's characteristics on the company's SGR, as the P-value for the model is less than 0.001 and the F-test value is 9.947. In addition, R<sup>2</sup> for the model is 0.249, which means that the model's independent variables together explain approximately 25% of the changes in the SGR of the company. Model 2 presents coefficient values for CEO education, experience, turnover, and age to equal -0.014, 0.017, and -0.016, respectively. Additionally, all of the P-values presented in Model 2 for all independent variables are greater than 0.05. Regarding statistical results for control variables involved in model 2, firm size has a coefficient of 0.02 (t-value = 3.51, P-value = 0.001), while firm age has a coefficient equal to 0.011 and its t-value equal 1.21, besides a P-value of 0.227. Finally, the last control variable in Model 2 is the firm's leverage, where Table 8 shows that it has a coefficient of -0.077, a t-value of -6.58, and a P-value of 0.0001.

**Table (9)***Panel regression analysis for company's share price*

Variables	Model 2			Model 3			Model 4		
	Coef.	t-stat	p-value	Coef.	t-stat	p-value	Coef.	t-stat	p-value
<b>SGR</b>				7.863	6.68	0.0001***	4.688	8.98	0***
<b>EDU</b>	-0.014	-1.31	0.192				0.124	1.42	0.156
<b>EXP</b>	0.017	1.46	0.145				0.095	0.97	0.333
<b>TO</b>	0.0001	0.3	0.763				-0.162	-1.2	0.231
<b>AGE</b>	-0.016	-1.06	0.291				-0.013	-3.38	0.001***
<b>FSIZE</b>	0.02	3.51	0.001***	.622	4.69	0.0001***	0.195	4.67	0***
<b>FAGE</b>	0.011	1.21	0.227	1.263	6.01	0.0001***	0.548	7.14	0***
<b>FLEVER</b>	-0.077	-6.58	0***	-.352	-1.78	.0770*	-0.06	-0.65	0.514
<b>Constant</b>	-0.313	-3.26	0.001***	-12.638	-5.03	0.0001***	-4.322	-5.96	0***
<b>No.Obs</b>		301			301			301	
<b>R-squared</b>		0.249			0.370			0.457	
<b>F-test</b>		9.947			19.869			29.504	
<b>Prob &gt; F</b>		0.00001			0.00001			0.00001	

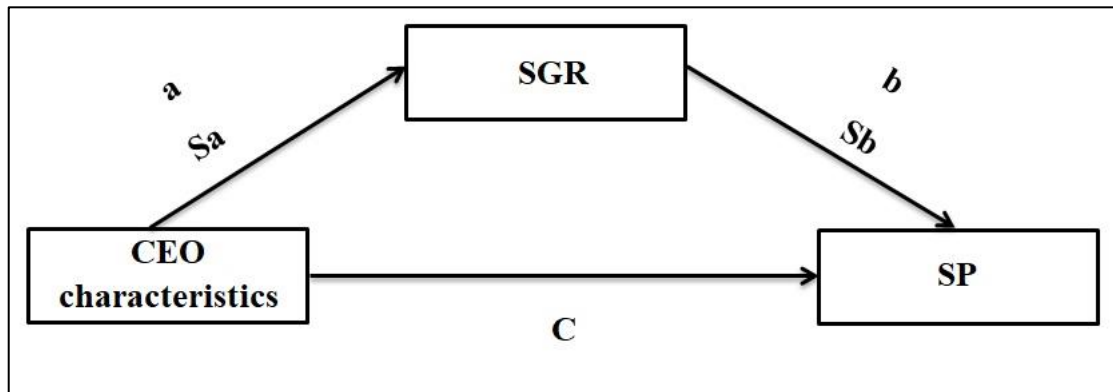
\*\*\* p&lt;.01, \*\* p&lt;.05, \* p&lt;.1.

Model 3 in Table 9 reflects the direct impact of a company's SGR on its share price. R<sup>2</sup> for this relationship is 0.370, indicating that SGR in this model explains 37% of changes in share price. In addition, SGR has a coefficient of 7.863, indicating the positive association SGR has with SP. The SGR t-value is 6.68, and its P-value is less than 0.01, indicating that SGR has a significant impact on SP.

Model 4 presented in Table 9 shows the results of SGR mediating the association between share price and CEO attributes. This regression examines the impact that CEO characteristics have on share price after taking into account the mediating role of the SGR variable. Table 9 shows that Model 4 R<sup>2</sup> equals 0.457, which means that after involving SGR in this relationship, overall variables explain almost 46% of changes in SP. In addition, the P-value for model 3 is less than 0.01, which reflects the significant relationship between CEO characteristics, the mediator, and the company's share price. Model 4 reflects a coefficient of 4.688 and (t-value = 8.98, P-value = 0.0001) for SGR, while regarding CEO attribute coefficients, CEO education, experience, turnover, and age have a coefficient of 0.124, 0.095, -0.162, and -0.013, respectively. Moreover, the P-values for each of CEO education, experience, and turnover are higher than 0.01, which indicates insignificance. On the other hand, the CEO's age P-value is less than 0.01. Regarding control variables in Model 4, we can notice in Table 9 that firm size and firm age continue to have a positive coefficient of 0.195 and 0.548, respectively, in Model 4. Additionally, firm leverage continues to have a negative coefficient compared to model 1, with a value of -0.06. Similarly, in Model 4, the P-values for firm size and age continue to be less than 0.01 compared to Model 1, indicating a significant impact on share price, while firm leverage appears to not have a significant impact on share price in Model 3, as its P-value > 0.01.

**Figure (2)**

*Simple Mediation Model*



Comparing Model 1 in Table 8 with Model 4 in Table 9 enables us to determine whether a complete or partial mediation exists, which in turn would affect the relationship between independent and dependent variables. The identification of a full mediation model occurs when the statistical significance of the connection between CEO attributes and share price decreases, suggesting a non-significant association, after taking mediator SGR into consideration. On the other hand, when the impact of CEO characteristics on share price is lessened but still statistically significant, a partial mediation model is suggested. To put it simply, a lower coefficient "c" indicates that the mediator is having a greater impact (Abu-Bader and Jones, 2021).

The next step to test the mediation is to implement a Sobel test, which is a statistical test suggested by Sobel in 1982, to assess if the impact of the independent variable (X) on the dependent variable (Y) is considerably reduced upon the inclusion of a mediator (M) in the regression analysis. To execute this statistical test, we need to use the coefficient (a) and the standard error (Sa) for each independent variable in Model 2, which are included in Table 9 and presented as the path in Figure 2 above. In addition, we need to use the coefficient (b) and the standard error (Sb) in Model 4, which are included in Table 9 and presented as path b in Figure 2 above. If the calculated Z score is not less than  $\pm 1.96$ , then it is statistically significant.

**Table (10)***Sobel test (Mediation Test)*

	<b>EDU</b>	<b>EXP</b>	<b>TO</b>	<b>AGE</b>
<b>a</b>	-0.014	0.017	-0.016	0.0001
<b>b</b>	4.688	4.688	4.688	4.688
<b>SEa</b>	0.011	0.012	0.015	0.001
<b>SEb</b>	0.522	0.522	0.522	0.522
<b>Z(Sobel)</b>	-0.127	1.399	-1.059	0.001
<b>Results</b>	insignificant	insignificant	insignificant	insignificant

### 3.4 Hypotheses Testing

In this section, we're going to conclude and discuss hypotheses testing results based on the statistical analysis conducted in the previous section for all companies included in this research, either listed on the PEX or ASE.

#### 3.4.1 CEO characteristics and SP

Table 8 reveals a significant relationship between CEO characteristics and SP as the model's  $P\text{-value} < 0.01$ . These results are in line with signaling theory, where CEO characteristics assist investors in signaling a company's performance and, as a result, increase the amount of demand. This result is in line with prior literature that has used signal theory to investigate how top management team and director attributes affect the firm's investor valuation (M. C. Higgins & Gulati, 2006; Zhang & Wiersema, 2009). Additionally, this result agrees with Abdullahi et al. (2023), in which some of the CEO characteristics have a significant impact on share prices. Therefore, the H1 hypothesis is accepted, indicating that there is a significant impact of CEO characteristics on share prices for industrial companies listed on PEX and ASE.

##### 3.4.1.1 CEO education and SP

Based on Table 8, the results indicate that CEO education has no significant and negative impact on the company's share price, as it has a  $p\text{-value} > 0.01$ . These results agree with lots of prior literature that has found no significant association between a manager's education and share prices or performance (Gottesman & Morey, 2010; Jankelowitz, 2015; Mukherjee & Sen, 2022; Ofe, 2012). Moreover, CEO education has a coefficient of -

0.069, which indicates the same negative relationship between CEO education and the company's share prices that was found by Gao et al. (2023) and Ying & Mei (2014) in their research. In other words, our results indicate that investors in manufacturing companies in Jordan and Palestine don't pay attention to whether CEOs possess financial education or not, and that investors may consider CEOs who have financial degrees as a negative signal that would affect the company's performance negatively. This may be due to investors' tendency to have CEOs with different degrees, like degrees related to the same manufacturing industry field, or their beliefs that CEOs with financial education degrees don't have enough innovation, which would affect firms' profit margins, demand, and high revenues negatively, and as a result, impact share prices negatively. Accordingly, we reject the H1a hypothesis.

#### **3.4.1.2 CEO experience and SP**

The results in Table 8 showed a coefficient of 0.198 and a P-value of 0.47 for the CEO's financial experience, indicating an insignificant and positive relationship between the CEO's financial expertise and the company's share price, and this would lead us to conclude that regarding insignificance, our results agree with Gerli (2020), who has indicated that CEO's financial expertise is not significant for ROE, thus for share prices, and the positive direction of this relationship goes a long way with Ali et al. (2022) and (Gupta et al., 2018) as they have indicated that a positive relationship links CEO experience with the company's value and performance. Additionally, these results indicate that most industrial companies' CEOs rely on accountants' and financial managers' experience rather than the CEO's financial expertise, and investors recognize the additional financial experience that CEOs have as a bonus and value-added for the company's value and share prices if it existed. Based on the previous discussion, we reject H1b.

#### **3.4.1.3 CEO turnover and SP**

Our results reveal in Table 8 that although the CEO's turnover is insignificant, it's associated negatively with the company's share price as it has a P-value of 0.669 and a coefficient of -0.195. This weak association has been approved in prior literature (Abdullahi et al., 2023; Chang & Wong, 2004). Similarly, Abdullahi et al. (2023) suggested that the optimization of share prices is contingent upon factors such as the

CEO's nationality, gender, and the size of the company, while CEO turnover has no significant impact on the share price. Regarding the negative relationship, our results agree with many, like Dedman and Lin (2002), as they've concluded that a change in a company's CEO affects firm value and share price negatively. These negative reactions could imply skepticism toward the board's decision. According to our results, investors in manufacturing companies listed on PEX and ASE receive CEO turnover news as a bad signal because it affects the demand for the company's shares negatively, but this effect is still insignificant. Based on this discussion, we reject H1c.

#### **3.4.1.4 CEO age and SP**

On the other hand, Table 8 showed a significant negative relationship between CEO age and the company's share price (coefficient = -0.033, P-value = 0.003), which confirms the signal theory as CEO age appears to signal investors about the company's share price. These results go along with many prior studies, like Gupta et al. (2018), who concluded that older CEOs impact investment decisions negatively, and Belenzon et al. (2019), who indicated a significant negative relationship between CEO age and firm performance that would be reflected negatively on the company's share price. Similarly, our results appear to agree with Serfling (2014), who indicated that older CEOs may be associated with poorer stock performance because of their traditional outlook, aversion to change, and lack of creative ideas. Therefore, hiring a younger CEO may influence shareholders who value innovation positively, potentially influencing share prices upward. Accordingly, CEO age appears to have a significant negative relationship with a company's share price in manufacturing firms listed on PEX and ASE, which means that investors pay attention to a company's CEO age. They consider younger CEOs as a good indicator, as they would be able to take the firm to another level, the role of the company in a different way, and have a higher probability of trying new strategies and taking more risks to improve firm performance. Based on the previous discussion, we accept the H1d hypothesis.

#### **3.4.2 CEO characteristics and sustainable growth rate**

The impact of CEO characteristics on corporate sustainable growth is reflected in Model 2, which is included in Table 9. Regression results indicated that R<sup>2</sup> for the model equals 0.249, which means that CEO's characteristics overall explain about 25% of the changes in SGR, while the P-value for model 2 is less than 0.01, which means that this relationship

is significant for industrial companies listed on PEX and ASE. This result is in line with the upper echelons theory, which states that a company's strategic direction and conduct are greatly influenced by the ideas, values, personalities, experiences, and cognitive frameworks of its senior executives. And according to this notion, top executives' strategic decisions directly affect the organization's performance and results, which in turn affect its competitiveness and success. Based on the above discussion, CEO characteristics play a vital role in shaping a company's strategies, as this is reflected by the significant impact of CEO attributes on SGR for companies listed on PEX and ASE; therefore, we accept the H2 hypothesis.

#### **3.4.2.1 CEO education and sustainable growth rate.**

However, Model 2 in Table 9 shows a coefficient of -0.014 which indicates a negative relationship between CEO's financial education and SGR of a company, and (t-value= -1.31, P-value= 0.192) which reflect that CEO financial education have an insignificant impact on firm's SGR, this results goes along with Boadi & Osarfo (2019) who found that board members and CEOs' education has a negative impact on firm performance, while Kanakriyah (2021) confirmed that education level of board members including CEOs have a negative influence on the performance and this is the opposite to some other literature like Suherman et al (2023) who has found a positive relationship between both CEOs education and firm performance. On the other hand, the P-value for CEO education in model 2 is higher than 0.01, which indicates that this attribute has an insignificant impact on SGR, and a lot of literature agrees on the insignificance of CEO education's impact on SGR and firm performance in general (Ahmad et al., 2022; Bhagat et al., 2010). The probability that most of these industrial companies' CEOs are relying totally on the company's financial managers for preparing all financial plans and policies interprets the insignificance of CEO financial education's impact on SGR. Additionally, many Jordanian and Palestinian companies that are controlled by family members adopt the policy of appointing their family members or individuals their families are familiar with as board members and as CEOs for their companies. Therefore, many CEOs who are appointed and possess a financial degree may not be qualified enough to perform advanced strategic planning to achieve a higher sustainable growth rate. Accordingly, we reject the H2a hypothesis.

#### **3.4.2.2 CEO experience and sustainable growth rate**

In Table 9, we can notice that Model 2 shows that CEO experience has an insignificant and positive impact on firms' SGR. Our result is consistent with the upper echelons theory, as under this theory, the CEO's prior experiences impact their leadership approach, strategic choices, and decisions regarding the sustainable development of the company. Our positive correlation between CEO experience and SGR is consistent with some previous literature, like Al-Matari (2020), who indicated a positive relationship between CEOs and accounting experience, general experience, and firm performance in the financial sector, while the same positive relationship was proved in the nonfinancial sector as well (Saleh et al., 2020). However, other studies indicated that CEOs with specific experience can affect a company's performance negatively (Serra et al., 2016). For the insignificant influence of CEO experience on SGR, our result agrees with Yao (2021), who has investigated the impact of CEO experience on a firm's performance and found that the finance expertise component doesn't have a significant influence, indicating that CEOs with financial experience are not as capable of developing successful strategies in failure scenarios and are not able to maintain the growth of their companies. Our result indicates that CEOs with financial experience can have a positive but insignificant impact on a company's SGR, thus formulating operational and financial policies. Accordingly, we reject the H2b hypothesis.

#### **3.4.2.3 CEO turnover and sustainable growth rate**

Model 2 in Table 9 indicates that CEO turnover has an insignificant and positive impact on a company's sustainable growth rate in manufacturing firms listed on both PEX and ASE. Our results agree with the agency theory, as the board of directors plays crucial roles in a company's operations, such as selecting a new CEO or replacing an existing one. This motivates CEOs to do their best and make the best decisions for owners' rights. Therefore, changing CEOs has a positive influence on firms' SGR, but this influence is insignificant for the manufacturing sector in Palestine and Jordan. This result is consistent with Kaplan (1995), who indicated that CEO replacement has no association with the company's earnings or sales growth. Additionally, it agrees with other literature that has indicated a positive relationship between CEO replacements and firm performance (Lafuente & García-Cestona, 2019; Finkelstein et al., 2009), unlike other studies like Lesten (Elsaid (2014; Lausten, 2002), which have indicated that CEO replacements

negatively affect firm performance. Based on our results, a change in a company's CEO doesn't have a significant effect on a company's SGR. This suggests that a company's operational and financial policies are not affected strongly by this change, but this replacement would enhance firms' SGR in manufacturing companies listed on PEX and ASE. Accordingly, we reject the H2c hypothesis.

#### **3.4.2.4 CEO age and sustainable growth rate**

Model 2 included in Table 9 shows that even age has a negative and insignificant relationship with firms' SGR. Our results are consistent with the upper echelons theory, as they indicate that businesses led by younger executives are more capable of adopting riskier strategies than those overseen by more experienced managers who are older. Similar results were found in prior literature. Mukherjee and Sen (2022) have examined CEO attributes' impact on corporate sustainability and found that there is a negative association between CEO age and firms' SGR. As well, Bhabra and Zhang (2016) found a negative association between CEO age, firm growth, and market value. On the other hand, our result doesn't agree with Stephen Oloo Kokeno & Muturi (2016), who found that CEO age has a positive influence on firm performance. Besides the argument of whether CEO age affects firm performance negatively or positively and the importance of involving a diverse range of ages within the company, our results agree with Ahmad et al., (2022) that CEO age has an insignificant impact on firm performance. Accordingly, this means that having younger CEOs in the manufacturing companies listed on PEX and ASE improves firms' SGR and enhances the company's performance as they have advanced tools and skills to use to achieve and maintain high SGR, but at the same time, CEO age doesn't have a significant impact on SGR. Based on the above discussion, we reject the H2d hypothesis.

#### **3.4.3 Control variables results**

Regarding the control variables within the model, Table 8 implies that the coefficient for the firm size variable is 0.845, indicating that firm size is positively related to share price, besides a t-value of 5.72 and a P-value less than 0.01, suggesting that this relationship is statistically positive and significant. Additionally, Table 8 indicates that the company's age has a coefficient of 1.47 and a P-value of 0, which is  $< 0.01$ , representing a significant and positive relationship between the firm's age and its share price. Therefore, older and

larger firms have higher share prices than younger and smaller ones. Concerning the last control variable, firm leverage, Table 8 provides the following indications: a coefficient of -1.087, which reflects a negative association between the debt/equity ratio and the company's share price, besides a (t-value = -5.72, P-value < 0.01), which indicates that this relationship is significant. Finally, the F-value of 8.040, coupled with a P-value below 0.01, signifies the statistical significance of the overall regression. This implies that the collective influence of the independent variables significantly affects the dependent variable. In summary, a company's size and age have a positive and significant impact on the firm's share price, which means that investors tend to invest in larger and older companies as they consider a firm's size and age as signals to predict how well they would perform and how much experience they've gained in markets. Moreover, they consider higher leverage a bad signal that would affect their investment decisions and share prices negatively.

On the other hand, Model 2 in Table 9 implies that firm size has a significant and positive impact on a company's SGR, indicating that larger companies would possess higher SGRs while smaller firms would have lower SGRs. This significant relationship is confirmed in some prior literature, like S. and Haryono (2023). On the other hand, firm age has a positive but insignificant impact on firms' SGR. While firm leverage continues to have a significant and negative impact on firms' SGR, our result agrees with Ramli et al (2022) who indicated that there is a significant negative relationship between leverage and SGR in manufacturing companies.

#### **3.4.4 Sustainable growth rate and share price**

In Table 9, Model 3 represents the impact of SGR on a company's share price while controlling firm size, age, and leverage variables. In this model, SGR has a coefficient value of 7.863 (t-value = 6.68, P-value < 0.01), indicating that SGR for industrial companies listed on PEX and ASE has a significant and positive impact on the company's share price. Our result agrees with Rahim et al. (2019), as they've found that SGR positively affects the share price of Malaysian companies. Similarly, Qaim, Zulifiqar, Shahzad, & Salahuddin (2021) attempted in their study to evaluate the impact of both long-term financial sustainability and short-term firm performance on the stock prices of manufacturing companies in Pakistan while taking into consideration firm size and age as control variables, and their results revealed a significant impact of SGR on firms' share price. In addition, a company that is making the most of its sales efforts or creating large

profit margins is one that is growing at a high sustainable rate. It also shows that the company is handling its payables, receivables, and inventory well. Thus, higher SGR is reflected in higher share prices. Accordingly, we accept the H3 hypothesis.

### **3.4.5 Sustainable growth Mediating role**

To examine the mediating role that SGR plays in the relationship between CEO characteristics and share price, we need to use both of Model 1 in Table 8, which reflect the direct relationship between the independent (CEO characteristics) and dependent variable (SP) of the study. According to Baron & Kenny (1986), four conditions should be met to consider SGR as a mediator: First, CEO characteristics significantly affect SP. Second, CEO characteristics should have a significant impact on SGR. Third, SGR should have a significant impact on SP. Fourth, comparing Model 1, which represents the direct relationship between CEO attributes (Path C), with Model 4, which represents the impact of CEO attributes on SP after considering the SGR variable, if the impact of independent variables on the dependent variable diminishes after considering the SGR, then condition 4 is met.

After going through these 4 steps to test the mediating role of SGR, we should apply a Sobel test to determine if SGR has a significant mediating role in this relationship or not. After testing all previous hypotheses, we start to review which independent variable has met all of these conditions.

It appears from the statistical results concluded after reviewing Model 1, Model 2, Model 3, and Model 4 that CEO characteristics have a significant impact on SP. Similarly, CEO characteristics have a significant impact on SGR. In addition, SGR has a significant impact on SP. Last but not least, we compare the coefficient of each independent variable between Model 1 and Model 4 to locate the mediating role in strengthening the relationship between this IV and SP. Although CEO characteristics still have a significant impact on SP after considering SGR, However, we should test these conditions for each of the independent variables.

Model 1 in Table 8 presents the direct relationship between CEO characteristics and SP; it demonstrates that CEO education has an insignificant and negative relationship with SP, so the first condition of Baron and Kenny (1986) is not fulfilled. Model 2 in Table 9 demonstrates a negative and insignificant association between CEO education and SGR,

which in turn doesn't fulfill the second condition. Model 3 in Table 9 presents that SGR affects SP in a positive direction and is significant at  $P < 0.01$  (coefficient = 7.863). Consequently, the third condition is fulfilled. Regarding the fourth condition, we need to compare the coefficients of CEO education in Model and Model 4 to locate the mediating role of SGR in strengthening the relationship between CEO education and SP. Based on Table 11 in appendix A, which provides a comparison of these two models' coefficients, the CEO education coefficient in Model 1 is -0.069, while in Model 4, it has a higher coefficient of 0.124. Moreover, the Sobel test is used to assess the statistical significance of the mediation effect. Table 11 in appendix A shows that the SGR mediation role in CEO education and the SP relationship is insignificant, as the Z-score in the Sobel test is -0.127, which is less than -1.96. The insignificant relationship result aligns with Mukherjee & Sen (2022). In addition, an indirect, insignificant relationship between CEO education and firm performance was found by Ramadanti et al (2023) by using earning management as a mediator. However, prior literature lacks a similar relationship using SGR as a mediator. So we reject the **H4a** hypothesis.

Similarly, Table 8 demonstrates that CEO experience has an insignificant and positive relationship with SP, so the first condition is not fulfilled. Model 2 in Table 9 demonstrates a positive and insignificant association between CEO experience and SGR. Therefore, the second condition is not satisfied. Model 3 in Table 9 shows that SGR affects SP in a positive direction and is significant at  $P < 0.01$  (coefficient = 7.863). Thus, the third condition is satisfied. Considering the fourth condition, we need to compare the coefficient of CEO experience in Model 1 with Model 4 in Table 11 in appendix A to locate the mediating role of SGR in strengthening the relationship between CEO experience and SP. The CEO experience coefficient in Model 1 is 0.198, while in Model 4, it has a lower coefficient of 0.095. However, the Sobel test results in Table 10 show that the SGR mediation role in CEO experience and SP relationship is insignificant, as the Z-score in the Sobel test is 1.399, which is less than +1.96. Our insignificant result between CEO experience and SP aligns with Gerli (2020). However, there is no previous research that has used SGR as a mediator between CEO experience and the company's share price relationship. Based on our results, we reject the **H4b** hypothesis.

In addition, Table 8 shows that CEO turnover has an insignificant and negative relationship with SP, so this result doesn't meet the first condition. Model 2 in Table 9

presents a positive and insignificant association between CEO turnover and SGR. As a result, the second condition is not satisfied. Model 3 in Table 9 presents that SGR affects SP in a positive direction and is significant at  $P < 0.01$  (coefficient = 7.863). Thus, the result meets the third condition. And with respect to the fourth condition, we need to compare the coefficient of CEO turnover in Model 1 with Model 4 in Table 11 in appendix A to locate the mediating role of SGR in strengthening the relationship between CEO turnover and SP. CEO turnover coefficient in model 1 is -0.195, while model 4 presents a higher coefficient of -0.162. Additionally, the Sobel test results in Table 10 show that the SGR mediation role in CEO turnover and SP relationship is insignificant, as the Z-score in the Sobel test is -1.059, which is less than -1.96. This result goes along with N. M. Machdar (2019) in his study where he investigated the mediating role of firm performance in the relationship between CEO turnover and stock performance and the results show that CEO turnover does not influence stock market performance via company performance. Thus, company performance does not act as an intervening variable in the relationship between CEO turnover and stock market performance. However, no prior literature used SGR as a mediating variable in CEO turnover and the company's share price relationship. According to our findings we reject the **H4c** hypothesis.

Finally, Table 8 demonstrates that CEO age has a significant negative impact on SP, thus fulfilling the first condition. Conversely, an insignificant negative relationship between CEO age and SGR appears in Model 2 Table 9, so this result doesn't meet condition number 2. In addition, it appears from Model 3 in Table 9 that SGR impacts SP in a positive direction and is significant at  $P < 0.01$  (coefficient = 7.863). Thereby, the third condition is satisfied. And the final stage is comparing the coefficient of CEO age in Model 1 with Model 4 in Table 11 in appendix A to conclude whether SGR plays a mediating role in strengthening the relationship between CEO age and SP. CEO age coefficient in model 1 is -0.033, while model 4 shows a coefficient of -0.013. And furthermore, the Sobel test results in Table 10 show that the SGR mediation role in CEO age and SP relationship is insignificant, as the Z-score in the Sobel test is 0.001, which is less than +1.96. Soewarno and Nugroho (2021) investigated the impact of CEO characteristics on firm performance using corporate social responsibility as a mediator, and the results revealed that CSR doesn't mediate the CEO age and firm performance

relationship. However, there is no prior literature that has used SGR as a mediator of CEO age's impact on a company's share price. According to our previous discussion, we reject the **H4c** hypothesis.

## Chapter Four

### Conclusion & Recommendation

#### 4.1 Overview

This chapter involves the research's conclusion and recommendation. Moreover, it discusses the study's implications and limitations and suggests future research.

#### 4.2 Conclusion

This study aimed to examine the mediating role that corporate sustainable growth plays in the relationship between CEO characteristics and share price. Further, this study investigated the direct relationship between the CEO's characteristics and the company's share price. CEO characteristics included variables like education, experience, turnover, and age. The corporate sustainable growth rate was measured based on Higgins's suggested equation (R. C. Higgins, 2016). Additionally, firm size, firm age, and leverage were used as control variables. The sample size included 43 industrial companies listed on the PEX and ASE over the period 2016–2022, resulting in 301 observations. The study adopted a quantitative approach and utilized multiple regression and the Sobel test to examine the study hypothesis. However, Stata 14.2 software was employed to analyze the data.

In general, the study findings indicated a significant relationship between the CEO characteristic model and share price (direct effect), where CEO characteristics explained almost 30% of the variation in the SP, thus our results are consistent with the signal theory. In addition, the results indicated that CEO age, firm size, and leverage have a significant negative association with the share price. Moreover, CEO education and turnover had an insignificant negative relationship with the share price. On the other hand, firm age has a significant positive relationship with share price, while CEO experience has an insignificant positive association with share price.

The results demonstrated a significant relationship between CEO characteristics as a whole and the corporate sustainable growth rate, where CEO characteristics explained almost 25% of the variation in the corporate sustainable growth rate, so our results are in line with the upper echelons theory, which indicates that a CEO's attributes play a vital role in their strategic decisions. Specifically, the findings showed that a significant

positive relationship exists between firm size and SGR, but CEO experience, turnover, and firm age have an insignificant positive relationship with SGR. Conversely, firm leverage has a significant negative association with SGR. However, CEO education and age have an insignificant negative relationship with SGR.

According to study analysis results, there is a significant positive relationship between SGR and the company's share price, where SGR explains 37% of changes in share price. Regarding the Sobel test results, the existence of SGR as a mediating variable in the association between CEO education, turnover, age, and share price appears to enhance and increase these relationships' strength. However, statistically, these relationships lack significance. On the other hand, the presence of SGR diminishes the strength of the relationship between CEO experience and share price. Nonetheless, statistically, the mediating role of SGR in this relationship is insignificant. These results are in the context of emerging economies represented by the Palestinian and Jordanian markets.

In terms of the study's implications, in the first place, this study will help local and foreign investors in their investment decisions by considering CEO characteristics and SGR dimensions. Secondly, this study will help Palestinian and Jordanian decision-makers improve firm value because they will consider current study factors that impact share price and reflect on firms' worth. Third, this study will encourage regulators and policymakers to consider key standards of required qualifications during the hiring process. Fourthly, this study assists internal and external auditors to be more prudent in reviewing and auditing processes because this result proved the important effect of CEO attributes on SGR and share price. Finally, this study will serve researchers who are interested in the current study field because it fills the gap in the literature related to SGR and the relationship between CEO attributes and share price.

### **4.3 Recommendation**

According to the study findings and discussion, the researcher recommends the following:

1. The executive position should not be limited to older executives, but there should be a mix between young and older executives. However, older managers tend to be more rational and experienced than others, while young executives are more daring and able to make high-risk decisions. This balance maintains the company's health.

2. Regarding the hiring process, we recommend choosing a qualified individual who has the suitable qualifications and experience for the position requirements and responsibilities. Particularly as CEO, position responsibilities include operational and financial policy decisions.
3. To enhance the firm's performance, it should offer professional training programs and courses for directors, managers, and employees.
4. Regulators and policymakers should formulate a list of uniform standards about the required qualifications of CEOs because of their crucial role in companies' success.
5. Firms should disclose all information related to the CEO and executive team in their annual reports in order for the company status to be clear to all stakeholders.
6. The CEO's serving period should be rotated based on the determined period in each country's regulations and policies.
7. The firm's strategy should consider achieving a higher SGR as it has a positive impact on the firm's share price, reflecting the firm's value.
8. The regulator, as the capital market authority, should have a regulatory body responsible for overseeing the activities of audit committees in companies. To guarantee that the audit committee performs its role with transparency and credibility, including supervising CEO activities. Our study proved the significance of CEO attributes on the determined share price.

#### **4.4 Limitations**

The study has many limitations. First, the Palestinian market size (PEX) is relatively smaller than the Jordanian market (ASE). Second, the study sample was limited to the industrial sector only, and other sectors were excluded. Third, the study didn't include all CEO characteristics. Finally, this study didn't consider the COVID-19 pandemic effect.

#### **4.5 Future Researches**

This study encourages subsequent researchers to conduct additional studies about the CEO's role in shaping share prices, given that this area of inquiry is still in its early stages. First, examine more CEO attributes that may impact the share price. Second, apply the study to different markets and longer periods. Third, use larger samples containing all sectors, considering the COVID-19 crisis impact. Fourth, examine the mediating role of

another variable in this relationship. Finally, investigate top management team characteristics instead of only CEO characteristics in this model.

## List of Abbreviations

<b>Abbreviation</b>	<b>Definition</b>
SGR	Sustainable growth rate
SP	Share price
CEO	Chief executive officer
PEX	Palestine Securities Exchange
ASE	Amman Stock Exchange

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## Appendices

### Appendix (A)

#### Tables

**Table (11)**

*Comparison between the coefficients of independent variables in Model 1 & 4*

SP	Model 1	Model 4	Change Direction
	<b>Coef.</b>	<b>Coef.</b>	
EDU	-0.069	0.124	Increased
EXP	0.198	0.095	Decreased
TO	-0.195	-0.162	Increased
AGE	-0.033	-0.013	Increased

**Table (12)***Sample (2016-2022)*

	<b>Market</b>	<b>Sector</b>	<b>Firm</b>	<b>Symbols</b>
<b>1</b>	PEX	Industrial	Arab Company For Paints Products	APC
<b>2</b>	PEX	Industrial	Jerusalem Pharmaceuticals	JPH
<b>3</b>	PEX	Industrial	The National Carton Industry	NCI
<b>4</b>	PEX	Industrial	Birzeit Pharmaceuticals	BPC
<b>5</b>	PEX	Industrial	Golden Wheat Mills	GMC
<b>6</b>	PEX	Industrial	National Aluminum And Profiles	NAPCO
<b>7</b>	PEX	Industrial	Palestine Poultry	AZIZA
<b>8</b>	PEX	Industrial	Jerusalem Cigarette	JCC
<b>9</b>	PEX	Industrial	Palestine Plastics Industries	LADAEN
<b>10</b>	PEX	Industrial	The Vegetable Oil Industries	VOIC
<b>11</b>	PEX	Industrial	Beit Jala Pharmaceutical	BJP
<b>12</b>	ASE	Industrial	Dar Al Dawa Development & Investment	DADI
<b>13</b>	ASE	Industrial	Hayat Pharmaceutical Industries Co.	HPIC
<b>14</b>	ASE	Industrial	Philadelphia Pharmaceuticals	PHIL
<b>15</b>	ASE	Industrial	The Industrial Commercial & Agricultural	ICAG
<b>16</b>	ASE	Industrial	Premier Business And Projects Co.Ltd	ACDT
<b>17</b>	ASE	Industrial	Intermediate Petrochemicals Industries CO. LTD.	IPCH
<b>18</b>	ASE	Industrial	Jordan Industrial Resources	JOIR
<b>19</b>	ASE	Industrial	The Arab Pesticides & Veterinary Drugs Mfg.	MBED
<b>20</b>	ASE	Industrial	Jordan Poultry Processing & Marketing	JPPC
<b>21</b>	ASE	Industrial	Jordan Dairy	JODA
<b>22</b>	ASE	Industrial	General Investment	GENI
<b>23</b>	ASE	Industrial	Universal Modern Industries	UMIC
<b>24</b>	ASE	Industrial	Afaq Holding For Investment & Real Estate Development CO. P.L.C	MANR
<b>25</b>	ASE	Industrial	Nutri Dar	NDAR
<b>26</b>	ASE	Industrial	Jordan Vegetable Oil Industries	JVOI
<b>27</b>	ASE	Industrial	Siniora Food Industries Plc	SNRA
<b>28</b>	ASE	Industrial	Union Tobacco & Cigarette Industries	UTOB
<b>29</b>	ASE	Industrial	Arab Aluminium Industry /Aral	AALU
<b>30</b>	ASE	Industrial	National Steel Industry	NAST
<b>31</b>	ASE	Industrial	Jordan Phosphate Mines	JOPH
<b>32</b>	ASE	Industrial	The Arab Potash	APOT
<b>33</b>	ASE	Industrial	Jordan Steel	JOST
<b>34</b>	ASE	Industrial	National Aluminium Industrial	NATA
<b>35</b>	ASE	Industrial	Northern Cement Co.	NCCO
<b>36</b>	ASE	Industrial	The Jordan Pipes Manufacturing	JOPI
<b>37</b>	ASE	Industrial	Ready Mix Concrte And Construction Supplies	RMCC
<b>38</b>	ASE	Industrial	Arabian Steel Pipes Manufacturing	ASPMM
<b>39</b>	ASE	Industrial	Al-Quds Ready Mix	AQRM
<b>40</b>	ASE	Industrial	Assas For Concrete Products Co. Ltd	ASAS
<b>41</b>	ASE	Industrial	National Cable & Wire Manufacturing	WIRE
<b>42</b>	ASE	Industrial	United Cable Industries	UCIC
<b>43</b>	ASE	Industrial	The Jordan Worsted Mills	JOWM

**Table (13)***Robust regression results of the direct effect of CEO characteristics on share price*

DV	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
EDU	-.069	.266	-0.26	.794	-.593	.454	
EXP	.198	.273	0.72	.47	-.34	.735	
TO	-.195	.449	-0.43	.664	-1.079	.688	
AGE	-.033	.011	-2.95	.003	-.056	-.011	***
FSIZE	.845	.148	5.72	0	.554	1.136	***
FAGE	1.47	.261	5.63	0	.956	1.984	***
FLEVERAGE	-1.087	.19	-5.72	0	-1.461	-.713	***
Constant	-14.563	2.6	-5.60	0	-19.679	-9.447	***
Mean dependent var		2.189			SD dependent var	2.310	
R-squared		0.301			Number of obs	301	
F-test		8.040			Prob > F	0.000	
Akaike crit. (AIC)		1265.559			Bayesian crit. (BIC)	1295.216	

\*\*\* p&lt;.01, \*\* p&lt;.05, \* p&lt;.1

**Table (14)***Robust regression of CEO characteristics impact on SGR*

SGR	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
EDU	-.014	.011	-1.31	.192	-.036	.007	
EXP	.017	.012	1.46	.145	-.006	.041	
AGE	0	.001	0.30	.763	-.001	.001	
log_TO1	-.016	.015	-1.06	.291	-.045	.013	
FSIZE	.02	.006	3.51	.001	.009	.031	***
FAGE	.011	.009	1.21	.227	-.007	.029	
FLEVERAGE	-.077	.012	-6.58	0	-.1	-.054	***
Constant	-.313	.096	-3.26	.001	-.502	-.124	***
Mean dependent var		0.027			SD dependent var	0.100	
R-squared		0.249			Number of obs	301	
F-test		9.947			Prob > F	0.000	
Akaike crit. (AIC)		-600.264			Bayesian crit. (BIC)	-570.607	

\*\*\* p&lt;.01, \*\* p&lt;.05, \* p&lt;.1

**Table (15)***Robust Regression for the impact of SGR on SP*

SP	Coef.	St.Err.	t-value	p-value	[95% Conf	Interva]	Sig
SGR	7.863	1.176	6.68	0	5.547	10.178	***
FSIZE	.622	.133	4.69	0	.361	.883	***
FAGE	1.263	.21	6.01	0	.849	1.676	***
FLEVERAGE	-.352	.198	-1.78	.077	-.742	.038	*
Constant	-12.638	2.513	-5.03	0	-17.583	-7.693	***
SGR	7.863	1.176	6.68	0	5.547	10.178	***
FSIZE	.622	.133	4.69	0	.361	.883	***
FAGE	1.263	.21	6.01	0	.849	1.676	***
Mean dependent var		2.189		SD dependent var		2.310	
R-squared		0.370		Number of obs		301	
F-test		19.869		Prob > F		0.000	
Akaike crit. (AIC)		1228.449		Bayesian crit. (BIC)		1246.985	

\*\*\* p&lt;.01, \*\* p&lt;.05, \* p&lt;.1.

**Table (16)***Robust regression of the mediation impact of SGR on the relationship between CEO characteristics and SP*

SP	Coef.	St.Err.	t-value	p-value	[95% Conf	Interva]	Sig
SGR	4.688	.522	8.98	0	3.661	5.715	***
EDU	.124	.087	1.42	.156	-.048	.295	
EXP	.095	.098	0.97	.333	-.098	.289	
TO	-.162	.135	-1.20	.231	-.427	.103	
AGE	-.013	.004	-3.38	.001	-.021	-.006	***
FSIZE	.195	.042	4.67	0	.113	.277	***
FAGE	.548	.077	7.14	0	.397	.699	***
FLEVERAGE	-.06	.091	-0.65	.514	-.239	.12	
Constant	-4.322	.725	-5.96	0	-5.749	-2.896	***
Mean dependent var		0.353		SD dependent var		0.941	
R-squared		0.457		Number of obs		301	
F-test		29.504		Prob > F		0.000	
Akaike crit. (AIC)		650.783		Bayesian crit. (BIC)		684.147	

\*\* p&lt;.01, \* p&lt;.05, \* p&lt;.1.

## Appendix (B)

### Sobel test results

CEO Education

Input:		Test statistic:	Std. Error:	p-value:	
a	<input type="text" value="-0.014"/>	Sobel test:	<input type="text" value="-0.12725995"/>	<input type="text" value="0.51573178"/>	<input type="text" value="0.89873466"/>
b	<input type="text" value="4.688"/>	Aroian test:	<input type="text" value="-0.12647846"/>	<input type="text" value="0.51891842"/>	<input type="text" value="0.8993532"/>
s <sub>a</sub>	<input type="text" value="0.11"/>	Goodman test:	<input type="text" value="-0.12805611"/>	<input type="text" value="0.51252533"/>	<input type="text" value="0.89810457"/>
s <sub>b</sub>	<input type="text" value=".522"/>	<input type="button" value="Reset all"/>	<input type="button" value="Calculate"/>		

CEO Experience

Input:		Test statistic:	Std. Error:	p-value:	
a	<input type="text" value=".017"/>	Sobel test:	<input type="text" value="1.39936353"/>	<input type="text" value="0.05695161"/>	<input type="text" value="0.161704"/>
b	<input type="text" value="4.688"/>	Aroian test:	<input type="text" value="1.39097524"/>	<input type="text" value="0.05729505"/>	<input type="text" value="0.16423294"/>
s <sub>a</sub>	<input type="text" value=".012"/>	Goodman test:	<input type="text" value="1.40790543"/>	<input type="text" value="0.05660607"/>	<input type="text" value="0.15915908"/>
s <sub>b</sub>	<input type="text" value=".522"/>	<input type="button" value="Reset all"/>	<input type="button" value="Calculate"/>		

CEO Turnover

Input:		Test statistic:	Std. Error:	p-value:	
a	<input type="text" value="-0.016"/>	Sobel test:	<input type="text" value="-1.05922181"/>	<input type="text" value="0.07081425"/>	<input type="text" value="0.28949877"/>
b	<input type="text" value="4.688"/>	Aroian test:	<input type="text" value="-1.05280559"/>	<input type="text" value="0.07124582"/>	<input type="text" value="0.2924301"/>
s <sub>a</sub>	<input type="text" value=".015"/>	Goodman test:	<input type="text" value="-1.06575678"/>	<input type="text" value="0.07038004"/>	<input type="text" value="0.2865336"/>
s <sub>b</sub>	<input type="text" value=".522"/>	<input type="button" value="Reset all"/>	<input type="button" value="Calculate"/>		

Input:		Test statistic:	Std. Error:	p-value:	
a	<input type="text" value=".0001539"/>	Sobel test:	<input type="text" value="0.30200855"/>	<input type="text" value="0.00238895"/>	<input type="text" value="0.76264555"/>
b	<input type="text" value="4.688"/>	Aroian test:	<input type="text" value="0.30015565"/>	<input type="text" value="0.0024037"/>	<input type="text" value="0.76405843"/>
s <sub>a</sub>	<input type="text" value=".0005093"/>	Goodman test:	<input type="text" value="0.3038962"/>	<input type="text" value="0.00237411"/>	<input type="text" value="0.76120697"/>
s <sub>b</sub>	<input type="text" value=".522"/>	<input type="button" value="Reset all"/>	<input type="button" value="Calculate"/>		

CEO Age



جامعة النجاح الوطنية  
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النمو المستدام للشركات كوسيط لتأثير خصائص الرئيس  
التنفيذي على أسعار الأسهم: أدلة من اقتصاد الدول النامية

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قدمت هذه الرسالة استكمالاً لمتطلبات الحصول على درجة الماجستير في المحاسبة، من كلية الدراسات العليا، في جامعة النجاح الوطنية، نابلس، فلسطين.

2024

# النمو المستدام للشركات كوسيط لتأثير خصائص الرئيس التنفيذي على أسعار الأسهم: أدلة من اقتصاد الدول النامية

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## الملخص

هدفت هذه الدراسة إلى معرفة أثر خصائص المدير التنفيذي على سعر سهم الشركة، واستكشاف ما إذا كان معدل النمو المستدام يتوسط العلاقة بين خصائص المدير التنفيذي وسعر السهم باستخدام مزيج من نظرية المستويات العليا، نظرية الإشارة ونظرية الوكالة. أيضا، خصائص المدير التنفيذي التي تضمنتها هذه الدراسة هي تعليم المدير التنفيذي، الخبرة، الدوران الوظيفي والعمر. استخدمت هذه الدراسة المنهج الكمي. عينة الدراسة تكونت من (43) شركة صناعية، (11) منها مدرج في بورصة فلسطين و(32) منها مدرج في بورصة عمان خلال الفترة 2016-2022، نتج عنها (301) مشاهدة. تم تحليل البيانات باستخدام تحليل الانحدار متعدد المتغيرات، لفحص فرضيات العلاقة المباشرة. علاوة على ذلك، لاختبار الدور الوسيط لفرضية SGR، تم تطبيق طريقة الخطوات السببية واختبار سوبل. وجدت الدراسة وجود علاقة ذات دلالة إحصائية بين خصائص الرئيس التنفيذي وسعر السهم، حيث كان لعمر الرئيس التنفيذي ارتباطا سلبيا مع سعر السهم، في حين أن تعليم الرئيس التنفيذي وخبرته ودورانه كان لها علاقة غير هامة. وجدت الدراسة وجود علاقة ذات دلالة إحصائية بين خصائص الرئيس التنفيذي و SGR، وفيما يتعلق بنتائج اختبار Sobel، وجدت الدراسة أن الدور الوسيط لـ SGR في العلاقة بين تعليم الرئيس التنفيذي، ودوران الموظفين، والعمر، وسعر السهم غير مهم. وفيما يتعلق بمتغيرات الضابطة، كان لحجم الشركة والرافعة المالية ارتباط سلبى مع سعر السهم، في حين كان لعمر الشركة علاقة إيجابية مع سعر السهم. تقدم هذه الدراسة مساهمة

مهمة في شرح العلاقة السببية بين خصائص الرئيس التنفيذي وسعر السهم، حيث ناقش عدد قليل فقط من العلماء المتغيرات الوسيطة المحتملة التي يمكن أن تنقل تأثير خصائص الرئيس التنفيذي على سعر السهم والتي يمكن أن تشرح بشكل أفضل كيفية ارتباط هذين المتغيرين. وتساعد الدراسة المستثمرين والجهات التنظيمية في فلسطين والأردن في اتخاذ قراراتهم الاستثمارية من خلال النظر في تأثير صفات الرئيس التنفيذي على استراتيجيات الشركة وأسعار الأسهم، وبالتالي تحسين قيمة الشركات. تشمل قيود الدراسة استبعاد القطاعات الأخرى وطلب عينات أكبر. ويوصي الباحث بفحص سمات الرئيس التنفيذي الأخرى والمتغيرات الوسيطة الأخرى وخصائص فريق الإدارة العليا في الأبحاث المستقبلية.

**الكلمات المفتاحية:** خصائص الرئيس التنفيذي، معدل النمو المستدام، سعر السهم، بورصة عمان، بورصة فلسطين، الاقتصاد الناشئ.