1. Introduction

Corporate bankruptcy literature has always been one of the most exciting fields in corporate finance research. In the financial crisis of 2007 to 2009, many companies declared bankruptcy due to financial distress (Li and Zhong, 2013). Uncertainty caused by the financial helplessness of a company imposes significant costs on the company and stakeholders, such as reduced income, increased legal costs, increased financing costs, and increased bankruptcy risk (Zhou, 2019). Therefore, predicting financial helplessness in all businesses, including banks and financial institutions, manufacturing, service, and commercial companies, seems necessary to reduce the possibility of financial helplessness and its subsequent costs (Ali et al., 2021). In this regard, by examining how to reduce the likelihood of financial helplessness and understanding the factors affecting financial helplessness, it is possible to help companies survive. Since the 1960s, researchers have developed financial distress detection models using financial data (Altman, 1968) or market data (Almami et al., 2016). Some studies have investigated the consequences of corporate governance mechanisms on the possibility of financial distress (Darrat et al., 2016; Udin et al., 2017; Rostami, 2022), but there is no research on the effect of the characteristics of the board of directors in the event of financial distress.

2. Hypothesis

H1: The board of directors' compensation has a negative and significant relationship with the subsequent future financial distress.

H2: The relationship between the board of directors' compensation and future financial distress in the introduction stage is significantly different from the shake-out stage.

H3: The relationship between the board of directors' compensation and future financial distress in the growth stage is significantly different from the shake-out stage.

H4: The relationship between the board of directors' compensation and future financial distress in the mature stage is significantly different from the shake-out stage.

H5: The relationship between the board of directors' compensation and future financial distress in the decline stage is significantly different from the shake-out stage.

3. Methods

The statistical population in this study consists of companies listed on the

Tehran Stock Exchange during the period from 2011 to 2022 that meet specific criteria. These criteria include the financial year ending in March and no change in the financial year in the period under review, lack of activity in financial intermediation (such as banks, investment, and insurance), and disclosure of information required to calculate variables. Complying with the abovementioned conditions, the remaining 174 companies during these 12 years (2088 firm-year observations) were selected for statistical analysis. Variable's definitions are shown below. The dependent variables of the research consist of the compensation of the board of directors (Comp). The independent variable is financial distress (Dis), and the moderating variable is the life cycle stages (CLC). Control Variables are firm size (Size), debt ratio (Lev), cash holdings (Cash), return on asset (ROA), Loss dummy (Loss), and quick ratio (Quick).

4. Results

The results of the main tests indicated a direct and significant relationship between the board of director's compensation in the current year and the possibility of financial distress in the coming year. Moreover, the findings showed that the stages of introduction, growth, and decline of the life cycle significantly moderate the relationship between the remuneration of the board of directors and the probability of financial distress in the following year. In contrast, this relationship is not statistically significant in the maturity stage. The results of the generalized methods of the moments complementary method have also confirmed the findings of the main tests.

5. Discussion and Conclusion

Board compensation contracts are used to solve agency problems by aligning the interests of management with shareholders (Jensen and Murphy, 1990). Using performance-based rewards relates managers' wealth to performance, thereby improving it. However, in distressed companies, due to poor performance, the situation is different, and performance-based rewards may not be a solid incentive to align the interests of managers and shareholders. This issue has rarely been investigated directly in previous research. The purpose of the study was to examine the relationship between the board of directors' compensation and financial distress, emphasizing the moderating role of the firm's life cycle stages. The findings showed that the board of directors' compensation negatively and significantly affects future financial distress. Also, the findings showed that the impact of the board of directors' remuneration on financial distress is affected by life cycle stages. These findings are consistent with the evidence presented in previous studies such as Hasanawati (2024), Chatterjee et al. (2023), and Hamzeh and Lourimi (2014). The results from the first hypothesis confirm the optimal contract view in explaining the compensation mechanisms of boards in distressed companies. According to this theory, when a company is in financial trouble, the sensitivity of pay to performance changes. Indeed, such compensation contracts can induce managers to undertake risky projects to maximize firm value. However, these decisions expose the company to more risk and increase the probability of bankruptcy (Coles et al., 2006). Due to the existence of differences in financial policies (DiAngelo et al., 2010; Dickinson, 2011; Haribar and Yehuda, 2007; Koh et al., 2015) and compensation mechanisms during life cycle stages (Liu et al. Cho, 2017; Wang and Singh, 2014) the result obtained from the second to fifth hypotheses can also be justified.

Keywords: Board Compensation, Financial Distress, Firm Life Cycle, Generalized Method of Moments (GMM).