FINANCIAL AND NON-FINANCIAL WEB-BASED CORPORATE DISCLOSURES DURING THE COVID-19 PANDEMIC

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Abstract

The COVID-19 pandemic is a multidimensional crisis and, probably, the most significant challenge for humanity since the devastating World War II. Many countries, in order to restrain the spread of the virus, proceeded to restrictive measures, social distancing, and ultimately quarantine which affected socioeconomic life and the business environment. In this volatile and complex context, corporate disclosures are vital in order to ensure transparency and stability in the financial markets and sustainable growth for the enterprises.

Disclosures constitute the main means of communication between management, investors, and markets, in general, and they are provided by several means that include annual reports, conference calls, investor relations, interim reports, and company websites (Hassan & Marston, 2010). The need for corporate disclosures stems from information asymmetry and agency problems between management and investors (Healy & Palepu, 2001). In this context, several theories have been proposed to interpret corporate disclosures which include cost, legitimacy, efficient markets, agency, and signaling theories.

The origins of political cost theory (or theory of positive accounting) are attributed to Watts and Zimmerman (1978, 1979) and their book *"Positive accounting theory"* (1986). According to the theory of political cost, it can be argued that companies voluntarily disclose information

in order to minimize political intervention (Mallin & Ow-Yong, 2012). Corporate disclosures can also be interpreted by the need of companies to raise capital at a lower cost, as additional disclosures may attract new shareholders and support demand and the price of shares (Cooke, 1989).

Legitimacy theory is defined as "a generalized perception or assumption that the actions of an entity are desirable, proper and appropriate within some socially structured system of norms, values, beliefs, and definitions" (Suchman, 1995, p. 574). According to legitimacy theory, organizations seek to ensure that they operate within social boundaries and, therefore, disclosures are a significant channel for companies to communicate the legitimacy and appropriateness of their actions.

The efficient market hypothesis argues that market prices fully reflect all available information; it was originally proposed by Samuelson in 1965 (Lo, 2007). Healy and Palepu (2001) argue that information asymmetry and agency conflicts between managers increase the demand for financial disclosures. The problem of asymmetric information can be solved by optimal contracts between entrepreneurs and investors, by regulation that requires managers to fully disclose all their private information, and by the obligation of financial analysts and rating agencies to uncover management's inside information (Healy & Palepu, 2001).

The agency problem is associated with the separation of ownership and control in diffused ownership corporations (Jensen & Meckling, 1976). In firms with diffused ownership the agent may have access to inside information, which, considering the monitoring difficulties, he may use for his own benefit (Cooke, 1989). In this case, accounting information is a mechanism for the resolution of conflicts between the related parties; e.g., between shareholders, between shareholders and bondholders, even between the corporation and society (Gray, Meek, & Roberts, 1995).

Signaling theory can also be useful in describing behavior in which parties have access to different information (Connelly, Certo, Ireland, & Reutzel, 2011). According to Smith (2003), Ross (1977) introduced the incentive signaling theory in finance by creating a research stream that examines voluntary disclosure in financial reports. In this context, signaling theory provides useful data for the interpretation of the level of disclosure in the capital markets where companies compete for their securities and their expected return, as well as for the uncertainty regarding the quality of a company and its securities (Gray et al., 1995).

Several characteristics have been proposed in prior research as explanatory variables of the extent of corporate disclosures. These variables can be categorized into three broad categories: *structure-related* variables such as company size, *performance-related* variables such as profitability, and *market-related* variables like audit firm size. Research on the association of the extent of disclosure with the variables of the above categories has produced mixed results with some studies

finding a significant positive association, other studies finding a significant negative association, and some of them finding an insignificant association.

This study aims to investigate the extent and quality of financial and non-financial information disclosed on the corporate websites during the pandemic and its association with company and corporate governance characteristics. For this purpose, a self-constructed index was used to measure the extent and quality of disclosure of the websites of the companies of the sample. The disclosure index included 70 items. From these items, 61 were based on prior studies and mainly on Botti, Boubaker, Hamrouni, and Solonandrasana (2014), Elsayed, El-Masry, and Elbeltagi (2010), Kelton and Yang (2008), and 9 items were COVID-specific disclosures in order to capture the impact of the pandemic. The items of the index were classified into the following categories: content (41 items), relating to financial information, corporate governance, and corporate social responsibility, presentation (20 items), and pandemic (9 items).

The approach used in the scoring of the item index was unweighted (dichotomous) in which an item scored 1 if it was disclosed on the corporate website and 0 if not. The disclosure score per company (*dscore*) is measured as the ratio of the calculated score to the maximum possible score for this company.

$$dscore = \frac{\sum_{i=1}^{n_j} X_{ij}}{n_j} \quad (1)$$

where,

- n_j = the number of items expected for jth company, $n_j \leq 70$;
- $X_{ij} = 1$ if the i^{th} item is disclosed and $X_{ij} = 0$ if the i^{th} item is not disclosed so that $0 \leq dscore \leq 1$.

The sample of the study contains the websites of all non-financial companies of large and middle capitalization listed on the Athens Stock Exchange (ASE) during 2020. Firms of the financial sector were excluded from the study due to specific reporting requirements, a practice widely followed in prior research. The final sample of the study amounted to 40 corporate web sites, which were accessed during the period from June to August 2020. Each website was scored with the self-constructed index. Data regarding the dependent variables of the study were retrieved from the annual reports of the year ending 31.12.2019, which were released in 2020.

The estimated multiple regression model is depicted in the equation below:

$$dscore = \beta_0 + \beta_1 fsize + \beta_2 prof + \beta_3 lever + \beta_4 afsize + \beta_5 bsize + \beta_6 owncon + \beta_7 ceodual + \varepsilon_i \quad (2)$$

where,

- *dscore:* the disclosure score of each corporate web site;
- *fsize:* firm size measured by the natural logarithm of total sales;
- *prof:* profitability measured by the percentage of gross profit margin;
- *lever:* leverage, measured by debt to equity ratio;
- *afsize:* audit firm size, a dummy variable that takes the value 1 if the company is audited by one of the Big 4 audit firms and 0 otherwise;
- *bsize:* board size, the total number of members of the board;
- *own:* ownership concentration, calculated by the sum of the shareholders per company with holdings above 5%;
- *ceodual:* chief executive duality, a dummy variable that takes the value 1 if the positions of the CEO and the president are held by the same person and 0 otherwise.

Findings indicate a relatively high average level of disclosure. As far as the pandemic disclosures are concerned, a high level of disclosure was observed on protective measures for the employees, impact on working conditions, and impact on company revenues/activities. On the other hand, a low level of disclosure was observed on a hyperlink to the National Health System (NHS), to the development of remote operations and services and instructions to customers/suppliers.

Regression results show that the level of disclosure was significantly associated with company size, profitability, and board size. This indicates, that during the pandemic, larger companies, more profitable and with more board members, disclosed more information on their websites. Leverage, auditing firm size, ownership concentration, and CEO duality were not found to be significantly associated with the extent of disclosure on corporate websites.

To the knowledge of the authors, this is the first study to examine the extent of disclosures on corporate websites during the COVID-19 pandemic. The results shed light on the factors that affected disclosures on corporate websites during the pandemic and enrich the results of prior research in this field. Moreover, the findings of the research may be useful to clients, financial and credit analysts, investors, supervisory authorities as well as to management, in their effort to improve corporate disclosures and the level of social responsibility.

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