This paper reports on the nature, extent, and determinants of online corporate social responsibility (CSR) disclosure practices among the top 350 companies listed in the London Stock Exchange (FTSE 350). This has been done through two-fold. First, the paper investigates the relationship between firm characteristics, board structure, and ownership structure with CSR information dissemination via social media. The results indicate that the company that has a high number of females on board has a significant effect on CSR and the product and service as a component of CSR. Moreover, the results reveal that the company with a high level of ownership concentration has an effect on community involvement, product and service, and environment. In addition, a company that has a high level of institutional ownership has an effect on the product and service. Finally, the company that has a high percentage of director ownership has an effect on the product and service. Second, the paper studies the effect of board structure and other control variables on the online CSR for the top listed UK firms. The dependent variable consists of a comprehensive index of disclosure and another four sub-indices which namely employees, community involvement, products & services, and environment. The results show that online CSR disclosure through the firms’ websites has been affected by board size, board diversity, audit type, profitability, leverage, firm age, and the sector in which the firm operates.

Keywords: Ownership Structure, CSR, Online Corporate Disclosure, Company's Website, Board Structure, Social Media

Authors’ individual contribution: The Author is responsible for all the contributions to the paper according to CRediT (Contributor Roles Taxonomy) standards.

Declaration of conflicting interests: The Author declares that there is no conflict of interest.
the reduction of information asymmetry and/or insider trading and hence leading to fairness and transparency between investors to achieve the overall goal of a robust financial system (Ashton, Graul, & Newton, 1989; Bamber, Barber, & Schoderbek, 1993; McLelland & Giroux, 2000; Mohamed, Basuony, & Badawi, 2013).

The awareness of the importance and efficiency of disclosing information via the Internet has rapidly improved and has been adopted by an increasing number of companies. Yet, some companies are still cautious about the extensive use of the Internet in disclosing a wide range of information to meet all stakeholders’ needs and expectations and rather prefer to use the Internet to disclose restricted and limited information. Although the nature, extent, and determinants of online disclosure have been previously studied and researched with all supportive evidence, however, limited and indecisive evidence has been provided to investigate the factors that derive and affect online disclosure. Moreover, most studies support the importance of firm size as one of the most important factors that affect online corporate disclosure (Ashbaugh, Johnstone, & Warfield, 1999; Craven & Marston, 1999; Debreceny, Gray, & Rahman, 2002; Ettredge, Richardson, & Scholz, 2002; Fisher, Oyelere, & Laswad, 2004; Chan & Wickramasinghe, 2006; Mohamed & Basuony, 2015).

Previous research, on the other hand, have mostly focused on online corporate financial disclosure practices, with limited knowledge of online corporate social responsibility (CSR) disclosure practices. Prior research demonstrates that CSR disclosure can have a favourable impact on stakeholders’ perceptions of a company’s performance and value, and thus on the company’s profitability, cost of capital, and share price (Gray, Kouhy, & Lavers, 1995; Simpson & Kohers, 2002; Scholten, 2008; Godfrey, Merrill, & Hansen, 2009; Salama, Anderson, & Toms, 2011; El Ghoul, Guedhami, Kwok, & Mishra, 2011; Cormier, Ledoux, & Magnan, 2011; Lourenço, Branco, Curto, & Eugenio, 2012).

The literature has been investigated the effect of corporate governance structure on firm financial performance where, the effect of board structure on sustainability has been adopted recently in the literature (Adel, Hussain, Mohamed, & Basuony, 2019; Ahmad, Mobarek, & Roni, 2021). Furthermore, the influence of board structure and other control variables on the quality of CSR disclosure has not been investigated in a large number of developed countries especially the online CSR disclosure via a website and social media. When looking into CSR disclosure, it’s crucial to look into the factors that influence it. Directors’ strategic decisions are based on the desires of the stakeholders the business hopes to recruit (Maclagan, 1999).

2.2. Hypotheses development

2.2.1. Board size

It is claimed that having a large board increases collegiality among directors from various areas, which improves a company’s performance (Alanezi, 2009). Furthermore, having a big number of directors on board helps to reduce information asymmetry, and the larger the board, the better the monitoring (Barako, Hancock, & Izan, 2006; Basuony, Mohamed, & Elbayoumi, 2014b). On the other hand, a large board can lead to poor communication, board member dispute, and the cancellation or postponement of crucial decisions (Alanezi, 2009; Saha & Akter, 2013). The notion that board size is positively associated with voluntary disclosure is supported by empirical evidence (Ezzat & El-Masry, 2004).

H1: There is a positive association between board size and online CSR disclosure.
2.2.2. Board independence

The establishment of board independence serves to decrease the potential for agency conflict between stockholder insiders and outsiders (Arcay & Vazquez, 2005; Allegrini & Greco, 2011; Yekini, Adelopo, Andrikopoulos, & Yekini, 2015; Basuony, Mohamed, Hussain, & Marie, 2016). Furthermore, according to Xia, Yang, and Chow (2004), the presence of independent directors could help lower agency costs and improve corporate disclosure. Prior study on the relationship between the financial reporting process, especially the level of disclosure, and the board of directors’ independence has yielded inconsistent results. According to certain studies, there is a considerable link between corporate disclosure and board independence (Chau & Gray, 2010; Cheng & Courtenay, 2006). Using a sample of Singapore enterprises, Eng and Mak (2003) found that having more outside directors is related to less disclosure. Furthermore, Gul and Leung (2004) discover that the presence of an outside director mitigates the negative link between strong board leaders and voluntary disclosure. 

H2: There is a positive association between board independence and online CSR disclosure.

2.2.3. Board diversity

Board diversity has a major impact on board performance, according to resource dependence theory and human capital theory (Carter, D’Souza, Simkins, & Simpson, 2010). Female board members provide unique qualities to the organization, such as increased creativity and innovation, more effective leadership, and a greater ability to hire more qualified candidates (Robinson & Dechant, 1997; Rose, 2007; Abbadi, Abuaddous, & Alwashah, 2021). Carter et al. (2010) support the contention that the presence of female directors on the board has a beneficial effect on the board’s performance when female directors can execute a variety of tasks on the board. Gender, committee assignment, and the resource dependency function of directors are all investigated by Peterson and Philipot (2007). As a result, female directors may have an impact similar to that of independent directors, as reported in the governance literature (Adams & Ferreira, 2009). In their study, Fauzi and Locke (2012) argue that the more female and diverse the board, the more balanced the board will be.

H3: There is a positive association between board diversity and online CSR disclosure.

2.2.4. Control variables

Control factors in this study included industry type, firm size, liquidity, leverage, audit type, and profitability. According to past research, all of the above control factors had a positive relationship with corporate disclosure. According to research, each industry type, audit type, firm size, and corporate disclosure all have a positive correlation (Boubaker, Lakhal, & Nekhili, 2012; Debreceny et al., 2002; Dânnaso & Lourenço, 2011; Ismail, 2002; Oyelere, Laswad, & Fisher, 2003; Xiao et al., 2004). In addition, past research has shown that organizations with a high level of liquidity, leverage, and profitability have a beneficial impact on corporate disclosure (Basuony & Mohamed, 2014; Barako et al., 2006; Boubaker et al., 2012; Oyelere et al., 2003). Extant literature, on the other hand, confirms that organizations with low liquidity and leverage must provide a high level of disclosure (Ally, Simon, & Hussainey, 2010; Saleh Al Arussi, Hisyam Selamat, & Mohd Hanefah, 2009; Boubaker et al., 2012; Meek, Roberts, & Gray, 1995).

3. METHODOLOGY

The aim of this study is to examine the extent and nature of online CSR disclosure via companies’ websites for the top 350 companies (FTSE 350) on London Stock Exchange in the UK. Moreover, investigate the influence of board structure on online CSR disclosure. The population of the study consists of the FTSE 350 index. Table 1 shows the sample distribution by sector.

| Sectors | Frequency | % |
|---------|-----------|---|
| Energy  | 11        | 3.1 |
| Materials| 23        | 6.6 |
| Industrials | 69 | 19.7 |
| Consumer discretionary | 65 | 18.9 |
| Consumer staples | 21 | 6.0 |
| Health care | 15 | 4.3 |
| Financials | 122 | 34.9 |
| II | 14 | 4.0 |
| Communication services | 4 | 1.1 |
| Utilities | 8 | 2.3 |
| Total | 350 | 100% |

The dependent variables of this study consist of a comprehensive disclosure index and another four sub-indices that measure the extent of online CSR disclosure. A content analysis was used to collect the data and the index of the disclosure includes 24 items. The index encompasses a set of items that detection the disclosure of online information.

As the dependent variable, the article utilises a disclosure index to measure the extent of online CSR disclosure. The information is gathered by a content analysis of the companies’ websites, with the breadth of the information being quantify using a 24-item disclosure index. The index of disclosure utilised in this study is unique in that it analyses the online disclosure of four aspects of CSR: employees, community involvement, products and services, and the environment. The index is made up of a number of items that represent the breadth of online data disclosure. However, indices have been employed in a number of previous research to assess online corporate disclosure as shown in Appendix (Debreceny et al., 2002; Xiao et al., 2004; Boubaker et al., 2012). The data of the online CSR disclosure index was gathered using content analysis from the website of the sample companies (FTSE 350) between June and September of 2016.

The measurement and definition of variables involved in this study. The first group, dependent variables consist of five indices of CSR disclosure via the website. The second group, independent variables consist of board characteristics and the third group comprises of the control variables as firm-specific characteristics (see Notes under Table 7). The last group consists of ownership structure (see Notes under Table 5).
4. RESULTS AND DISCUSSION

4.1. Analysis of CSR disclosure via social media

Table 2 shows the summary of using CSR via overall social media in detail for four specific social media which are Facebook, Twitter, LinkedIn, and YouTube. Also, Table 2 summarizes the four categories of CSR (employees, community involvement, product and service, and environment) through using the four social media (Facebook, Twitter, LinkedIn, and YouTube).

Table 2. Descriptive statistics

| Social media (SM) usage | Yes (%) | No (%) | Yes (%) | No (%) | Yes (%) | No (%) | Yes (%) | No (%) |
|------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| CSR                    | 68.8   | 31.2   | 39     | 61     | 56.5   | 43.5   | 56.2   | 43.8   |
| Product and service    | 32.4   | 67.6   | 12.2   | 87.8   | 23.8   | 76.2   | 21.3   | 78.7   |
| Community involvement  | 62.8   | 37.2   | 33.8   | 66.2   | 50.1   | 49.9   | 44.1   | 55.9   |
| Employees              | 52.7   | 47.3   | 27.5   | 72.5   | 43.0   | 57.0   | 33.4   | 66.6   |
| Firm age               | 54.4   | 45.6   | 23.7   | 76.3   | 37.4   | 62.6   | 43.2   | 56.8   |

Figure 1 shows the percentages of CSR dissemination of information using Facebook, Twitter, LinkedIn, and YouTube. The highest among the four social media in disclosing information of CSR is Facebook (53.6%), LinkedIn (51%) and Facebook and YouTube are coming at the end with about 35%.

Figure 1. CSR disclosure using social media, %

Table 3 shows the CSR disclosure using social media by examining the relationship between some firm characteristics (leverage, ROA, and firm age) with CSR and its four categories (employees, community involvement, product and service, and environment). By using the Chi² test, the results of Table 4 indicated that there is no significant relationship at any level of significance between any one of the firm characteristics and CSR and its four categories as shown in Table 3.

Table 3. CSR disclosure via social media — Firm characteristics

| Social media (SM) | Leverage | ROA | Firm age |
|-------------------|----------|-----|----------|
|                   | Low      | High| Low      | High | Low | High |
| Usage             | 112      | 117 | 0.487    | 116 | 124 | 0.316 |
| CSR               | 115      | 112 | 0.736    | 111 | 116 | 0.526 |
| Employees         | 95       | 95  | 1.000    | 90  | 100 | 0.257 |
| Community involvement | 91 | 93  | 0.830    | 92  | 92  | 0.955 |
| Product and service | 110   | 109 | 0.912    | 108 | 111 | 0.688 |
| Environment       | 53       | 60  | 0.423    | 61  | 52  | 0.321 |

Note: Leverage was measured by total liabilities/total assets; ROA was measured by net income/average total assets; firm age was measured by natural log of (year of the study - foundation year).

Table 4 examines the association between some board structure characteristics (board size, board independence, and board diversity) and CSR and its four categories utilizing social media (employees, community involvement, product and service, and environment). The results in Table 4 showed that there is only a significant association between board diversity and CSR, as determined by the Chi² test. This suggests that a board with a high percentage of female members has a significant impact on CSR via social media at a 5% level. Furthermore, as shown in Table 4, a company with a large number of female employees has a considerable impact on product and service as a component of CSR at the 5% level. This result is consistent with other scholars where, females on board tend to exhibit more engagement and orientation towards social responsibility, charitable activities, societal issues, environmental activities (Nadeem, Zaman, & Saleem, 2017; Basuony, Elsiedl, & Mohamed, 2014a; Stephenson, 2004; Williams, 2003). Furthermore, Krüger (2009) reported that females on board tend to focus on CSR activities compared to male directors.
Table 4. CSR disclosure via social media — Board structure

| Social media (SM)       | Board size | Board independence | Board diversity |
|-------------------------|------------|--------------------|-----------------|
|                         | Low        | High               | Low             | High           | Low             | High           | Pearson Chi²  |
|                         |            |                    |                 |                |                 |                |
| Usage                   | 99         | 138                | 0.683           | 163            | 76              | 0.328          | 187            | 52            | 0.029**        |
| CSR                     | 92         | 132                | 0.987           | 151            | 71              | 0.492          | 177            | 49            | 0.050**        |
| Employees               | 78         | 110                | 0.853           | 130            | 59              | 0.643          | 148            | 41            | 0.116          |
| Community involvement   | 81         | 101                | 0.167           | 124            | 59              | 0.376          | 148            | 35            | 0.822          |
| Product and service     | 90         | 126                | 0.760           | 150            | 68              | 0.391          | 170            | 48            | 0.038**        |
| Environment             | 32         | 60                 | 0.159           | 82             | 31              | 0.440          | 95             | 18            | 0.362          |

Notes: ** significance at a 5% level.

Table 5 examines the relationship between ownership structure variables (ownership concentration, institutional ownership, and director ownership) and CSR and its four categories, demonstrating CSR disclosure via social media (employees, community involvement, product and service, and environment). The findings of the Chi² test revealed a significant association between ownership concentration and the three categories of CSR, which are community involvement, product and service, and environment, at 5%, 10%, and 10%, respectively. This means that a company with a high concentration of ownership has a substantial impact on community involvement, product and service quality, and the environment. Furthermore, at a 10% level, a company with a high level of institutional ownership has a considerable impact on product and service as a component of CSR. Finally, as shown in Table 5, a firm with a high percentage of director ownership has a considerable impact on product and service as a component of CSR at the 10% level.

Table 5. CSR disclosure via social media — Ownership structure

| Social media (SM)       | Ownership concentration | Institutional ownership | Director ownership |
|-------------------------|-------------------------|-------------------------|--------------------|
|                         | Low         | High       | Pearson Chi²  | Low        | High       | Pearson Chi²  | Low        | High       | Pearson Chi²  |
| Usage                   | 114         | 125        | 0.204        | 129        | 110        | 0.191        | 58         | 181        | 0.408        |
| CSR                     | 106         | 120        | 0.116        | 121        | 105        | 0.194        | 52         | 174        | 0.135        |
| Employees               | 90          | 99         | 0.333        | 101        | 88         | 0.237        | 44         | 143        | 0.285        |
| Community involvement   | 81          | 102        | 0.024**      | 96         | 87         | 0.126        | 43         | 140        | 0.150        |
| Product and service     | 101         | 117        | 0.076*       | 115        | 103        | 0.082*       | 49         | 169        | 0.886*       |
| Environment             | 48          | 64         | 0.066*       | 57         | 55         | 0.160        | 28         | 84         | 0.866        |

Notes: * significance at a 10% level; ** significance at a 5% level.

Ownership concentration was measured by adding up all share ratios of stockholders who have 5% and more; institutional ownership was measured by % of institution ownership; director ownership was measured by % of director ownership.

4.2. Analysis of CSR disclosure via a website

Table 6 shows the mean, standard deviation, and both minimum and maximum as descriptive statistics for the online corporate social responsibility disclosure indices (Panel A) as dependent variables which contain five indices. Panel B represents the board structure as independent variables which consists of three variables and Panel C is the control variable which comprises seven variables.

Table 6. Statistics
4.3. Hypotheses testing

The hypotheses of this paper deal with examining the impact of board characteristics and seven items used as control variables on corporate social responsibility disclosure via companies’ websites by using five models of regression analysis.

Model 1:

\[ WCSRDI = \alpha + \beta_1\text{BrdSize} + \beta_2\text{BrdIndp} + \beta_3\text{BrdDvstty} + \beta_4\text{FrmSize} + \beta_5\text{FrmAge} + \beta_6\text{Sector} + \beta_7\text{CR} + \beta_8\text{FirmSize} + \beta_9\text{AudTyp} + \beta_{10}\text{Lvg} + \varepsilon \]

Model 2:

\[ WEMPDI = \alpha + \beta_1\text{BrdSize} + \beta_2\text{BrdIndp} + \beta_3\text{BrdDvstty} + \beta_4\text{FrmSize} + \beta_5\text{FrmAge} + \beta_6\text{Sector} + \beta_7\text{CR} + \beta_8\text{ROA} + \beta_9\text{AudTyp} + \beta_{10}\text{Lvg} + \varepsilon \]

Model 3:

\[ WCOMMDI = \alpha + \beta_1\text{BrdSize} + \beta_2\text{BrdIndp} + \beta_3\text{BrdDvstty} + \beta_4\text{FrmSize} + \beta_5\text{FrmAge} + \beta_6\text{Sector} + \beta_7\text{CR} + \beta_8\text{ROA} + \beta_9\text{AudTyp} + \beta_{10}\text{Lvg} + \varepsilon \]

Model 4:

\[ WPSDI = \alpha + \beta_1\text{BrdSize} + \beta_2\text{BrdIndp} + \beta_3\text{BrdDvstty} + \beta_4\text{FrmSize} + \beta_5\text{FrmAge} + \beta_6\text{Sector} + \beta_7\text{CR} + \beta_8\text{ROA} + \beta_9\text{AudTyp} + \beta_{10}\text{Lvg} + \varepsilon \]

Model 5:

\[ WENVDI = \alpha + \beta_1\text{BrdSize} + \beta_2\text{BrdIndp} + \beta_3\text{BrdDvstty} + \beta_4\text{FrmSize} + \beta_5\text{FrmAge} + \beta_6\text{Sector} + \beta_7\text{CR} + \beta_8\text{ROA} + \beta_9\text{AudTyp} + \beta_{10}\text{Lvg} + \varepsilon \]

Table 7. OLS regression results

| Model 1 (WCSRDI) | Model 2 (WEMPDI) | Model 3 (WCOMMDI) | Model 4 (WPSDI) | Model 5 (WENVDI) |
|------------------|------------------|-------------------|-----------------|-----------------|
| Constant         | 0.215            | 0.068             | 0.117           | 0.314           | 0.361           |
| (1.244)          | (0.338)          | (0.528)           | (1.460)         | (1.574)         |
| BrdSize          | 0.097***         | 0.111***          | 0.104***        | 0.087***        | 0.085           |
| (2.361)          | (2.319)          | (1.978)           | (1.704)         | (1.389)         |
| BrdIndp          | -0.092           | -0.103            | -0.141          | -0.088          | -0.050          |
| (-1.355)         | (-1.302)         | (-1.061)          | (-1.033)        | (-0.556)        |
| BrdDvstty        | -0.244           | -0.170            | 0.073           | -0.230*         | -0.171          |
| (-1.067)         | (-0.903)         | (0.430)           | (-1.683)        | (-0.972)        |
| Sector           | -0.002           | 0.000             | -0.002          | 0.002           | 0.006***        |
| (-1.407)         | (-1.069)         | (-1.066)          | (1.537)         | (-3.818)        |
| AudTyp           | 0.026            | 0.207***          | 0.064           | -0.076          | -0.108          |
| (2.316)          | (2.139)          | (0.599)           | (-0.731)        | (-0.990)        |
| FrmSize          | 0.008            | 4.607***          | 0.014           | 0.011           | 0.010           |
| (0.744)          | (0.004)          | (1.026)           | (0.803)         | (0.680)         |
| Lvg              | 0.121**          | 0.184***          | 0.021           | 0.050           | 0.182**         |
| (2.101)          | (2.733)          | (0.286)           | (0.689)         | (2.390)         |
| ROA              | 0.174            | 0.222             | 0.072           | -0.042          | 0.352**         |
| (1.335)          | (1.467)          | (0.430)           | (-0.259)        | (2.057)         |
| FrmAge           | 0.024**          | 0.015             | -0.007          | 0.032*          | 0.048***        |
| (1.751)          | (0.931)          | (-0.385)          | (1.913)         | (2.710)         |
| CR               | -0.001           | -0.002            | -0.002          | -0.003          | 0.002           |
| (-9.363)         | (-9.497)         | (-6.642)          | (-8.855)        | (0.519)         |
| F-statistics     | 3.460            | 3.706             | 1.691           | 1.871           | 4.675           |
| P-value          | 0.000            | 0.000             | 0.082           | 0.049           | 0.000           |
| R²               | 0.099            | 0.105             | 0.051           | 0.056           | 0.129           |
| Max VIF          | 1.417            | 1.417             | 1.417           | 1.417           | 1.417           |

Notes: *, **, *** significant at 10, 5 and 1 per cent, level respectively.

Table 7. OLS regression results

The five models of multiple regression have been presented in Table 7. For Model 1, WCSRDI is the dependent variable that could be affected by the board structure and control variables. The model is significant at a 1% level where F-statistic is 3.460 and the maximum VIF is 1.417 which indicates that...
there are no multi-collinearity problems. Board size has a significant positive effect on WCRDI at a 5% level. This means that the results of previous scholars are consistent with the result of this study which indicates that there is a positive relationship between board size and corporate disclosure (Desoky & Mousa, 2013; Barako et al., 2006; Chakroun & Matoussi, 2012). Furthermore, the leverage and firm age as control variables have a significant positive effect at 5% on WCSR DI where, it indicates that there is consistency between the results of this study with preceding studies (Ismail, 2002; Boubaker et al., 2012).

For Model 2, this study shows the board structure and control variables as determinants of website employee disclosure index, where the model is highly significant at 1% level where F-statistic is 3.706. Board size has a significant positive effect on WEMP DI at a 5% level. Moreover, the leverage and audit type as control variables have a significant positive effect at 1% and 5% respectively on WEMP DI where, it indicates that there is consistency between the results of this study with previous studies (Ismail, 2002; Xiao et al., 2004; Boubaker et al., 2012).

For Model 3, the dependent variable is WCOMMDI, where the model is significant at 10% level and F-statistic is 1.691. Similar to Model 1 and Model 2, board size has a significant positive effect on WCOMMDI at a 5% level.

For Model 4, this study investigates the effect of board structure and control on website product and service disclosure index, where the model is significant at 5% level and F-statistic is 1.871. Board size has a significant positive effect on WPSDI at 10% level. Furthermore, board diversity has a significant negative effect on WPSDI at 10%. This indicates that the results of previous scholars are consistent with the result of this study (Sartawi, Hindawi, Bsoul, & Ali, 2014; Amran, Lee, & Devi, 2014). Additionally, firm age has a significant positive effect on WPSDI at 10%.

Finally, Model 5 deals with WENV DI as a dependent variable, where the model is significant at 1% level and F-statistic is 4.675. The industry type has a significant negative effect on WENV DI at 1% which is consistent with the study of Oliveira, Lima Rodrigues, and Craig (2006). Furthermore, leverage, profitability, and firm age have a significant positive effect at 5%, 5%, and 1% respectively on WENV DI where, it indicates that there is consistency between the results of this study with preceding studies (Ashbaugh et al., 1999; Ismail, 2002).

5. Conclusion

This paper examines the effect of the extent and nature of board composition and other control variables on online corporate social responsibility disclosure practices for the top 350 listed companies in the London stock market (FTSE 350). The results indicate that the company that has a high number of females on board has a significant effect on CSR and the product and service as a component of CSR. Moreover, the results reveal that the company with a high level of ownership concentration has an effect on community involvement, product & service, and environment. In addition, a company that has a high level of institutional ownership has an effect on the product and service. Finally, the company that has a high percentage of director ownership has an effect on the product and service.

This study encompasses the literature on online disclosure by going outside the previous studies that examine online financial disclosure via the mean of firm websites and explores the determinants of online CSR disclosure. Also, this study investigates online CSR corporate disclosure in the UK by evolving and developing a comprehensive index of disclosure and sub-indices that entirely capture all facets of CSR. The researchers disclose the fundamental relations among board structure and firm characteristics as the determining elements for online disclosure of CSR. The results show that the main inclusive index of website CSR disclosure is significantly influenced by board size, leverage, and firm age. Moreover, the four sub-indices of CSR disclosure are influenced by only two mechanisms of board structure which are board size and board diversity. Moreover, some firm-specific characteristics significantly affect the website CSR disclosure indices which are audit type, profitability, leverage, firm age, and the sector in which the firm operates. One of the limitations of this study is the sample of the study where it examines the effect of the extent and nature of board structure and other control variables on online corporate social responsibility disclosure practices only for the top 350 listed companies in the London stock market (FTSE 350). The second limitation is that this study ignored the other factors that can affect the sustainability of the online practices of companies such as cultural, political, and economic factors. Finally, the findings of this research pave the way for future researches to examine the effect of board structure and ownership structure on corporate social responsibility via social media.

REFERENCES

1. Abbadi, S., Abuaiddous, M., & Alwasah, A. (2021). Impact of board gender diversity on the financial performance of the manufacturing and service companies listed on the Amman Stock Exchange. Corporate Governance and Organizational Behavior Review, 5(2), 8-16. https://doi.org/10.22495/cgovhrv32p1
2. Adams, R. B., & Ferreira, D. (2009). Women in the board room and their impact on governance and performance. *Journal of Financial Economics*, 94(2), 291–309. https://doi.org/10.1016/j.jfineco.2008.10.007
3. Adel, C., Hussain, M. M., Mohamed, E. K. A., & Basuony, M. A. K. (2019). Is corporate governance relevant to the quality of corporate social responsibility disclosure in large European companies? *International Journal of Accounting and Information Management*, 27(2), 301–332. https://doi.org/10.1108/IJAIM-10-2017-0118
4. Ahmad, N., Mobarek, A., & Roni, N. N. (2021). Revisiting the impact of ESG on financial performance of FTSE 350 UK firms: Static and dynamic panel data analysis. *Cogent Business & Management*, 8(1), 1-18. https://doi.org/10.1080/23311975.2021.1900500
5. Alanezi, F. S. (2009). Factors influencing Kuwaiti companies’ Internet financial reporting. *Journal of Economic and Administrative Sciences*, 23(2), 1–23. https://doi.org/10.1108/10264116200900007
6. Allegragini, M., & Greco, G. (2013). Corporate boards, audit committees and voluntary disclosure: Evidence from Italian listed companies. *Journal of Management & Governance, 17*(1), 187-216. https://doi.org/10.1007/s10997-011-9168-3

7. Aly, D., Simon, J., & Hussainey, K. (2010). Determinants of CIR: Evidence from Egypt. *Managerial Auditing Journal, 25*(2), 182-202. https://doi.org/10.1080/0269690100368710

8. Amran, A., Lee, S. P., & Devi, S. S. (2014). The influence of governance structure and strategic corporate social responsibility toward sustainability reporting quality. *Business Strategy and the Environment, 23*(4), 217-235. https://doi.org/10.1002/bse.1767

9. Arcay, M. R. B., & Vazquez, M. F. M. (2005). Corporate characteristics, governance rules and the extent of voluntary disclosure in Spain. *Advances in Accounting, 21*, 299-331. https://doi.org/10.1016/S0882-6110(05)21013-1

10. Ashbaugh, H. W., & Warfield, T. D. (1999). Corporate reporting on the Internet. *Accounting Horizons, 13*(3), pp. 241-257. https://doi.org/10.2308/ach.1999.13.3.241

11. Ashton, R. H., Graul, P. R., & Newton, J. D. (1989). Audit delay and the timeliness of corporate reporting. *Contemporary Accounting Research, 5(2)*, 657-673. https://doi.org/10.1111/j.1911-3846.1989.tb00732.x

12. Bambier, E. M., Bamber, I. S., & Schoberbek, M. P. (1993). Audit structure and other determinants of audit report lag: An empirical analysis. *Auditing: A Journal of Practice & Theory, 12*(1), 1-23. Retrieved from https://proquest.com/docview/2167398167?pq-origsite=gscholar&cعر=opview&true

13. Barako, D. G., Hancock, P., & Iwan, H. Y. (2006). Factors influencing voluntary corporate disclosure by Kenyan companies. *Corporate Governance: An International Review, 14*(2), 107-125. https://doi.org/10.1111/j.1467-8683.2006.00491.x

14. Basuony, M. A. K., & Mohamed, E. K. A. (2014). Board composition, ownership concentration, and voluntary Internet disclosure by MSM-listed companies. *Corporate Board: Roles, Duties and Composition, 10*(1), 60-70. https://doi.org/10.22495/cbwr10i1a195

15. Basuony, M. A. K., Elseid, R. I., & Mohamed, E. K. A. (2014a). The impact of corporate social responsibility on firm performance: evidence from a MENA country. *Corporate Ownership and Control, 12*(1), 761-774. https://doi.org/10.22495/cocv12i1c9p1

16. Basuony, M. A. K., Mohamed, E. K. A., & Elbayoumi, A. F. (2014b). Corporate Internet disclosure in the Arabian Gulf: An empirical examination of determinants and attributes. *Journal of Modern Accounting and Auditing, 10*(7), 747-763. Retrieved from https://www.davidpublisher.com/Public/uploads/Contribute/530a2da545981.pdf

17. Basuony, M. A. K., Mohamed, E. K. A., Hussain, M. M., & Marie, O. K. (2016). Board characteristics, ownership structure and audit report lag in the Middle East. *International Journal of Corporate Governance, 7*(2), 180-205. https://doi.org/10.1504/IJJCJ.2016.078388

18. Blankespoor, E., Miller, B. P., & White, H. D. (2014). Initial evidence on the market impact of the XBRL mandate. *Review of Accounting Studies, 19*(4), 1468-1503. http://doi.org/10.1007/s11142-011-9273-4

19. Boubaker, S., Lakhla, F., & Nekhili, M. (2012). The determinants of web-based corporate reporting in France. *Managerial Auditing Journal, 27*(2), 126-155. https://doi.org/10.1002/1099-121589835

20. Bowen, H. (1953). Social responsibilities of the businessman. New York, NY: Harper & Row.

21. Carroll, A. B. (1999). Corporate social responsibility: Evolution of a definitional construct. *Business & Society, 38*(3), 268-295. https://doi.org/10.1177/000765039903800303

22. Carpen, A. A., D’Souza, F., Simpson, R. J., & Simpson, W. G. (2010). The gender and ethnic diversity of US boards and board committees and firm financial performance. *Corporate Governance: An International Review, 18*(5), 396-414. https://doi.org/10.1111/j.1467-8683.2010.00809.x

23. Chakroun, R., & Matoussi, H. (2012). Determinants of the extent of voluntary disclosure in the annual reports of the Tunisian firms. *Accounting and Management Information Systems, 11*(3), 335-370. Retrieved from http://online-cig.asia.eo/RePec/ami/articles/11_3_2.pdf

24. Chen, W. K., & Wickramanayake, N. (2006). Using the Internet for financial disclosures: the Australian experience. *International Journal of Electronic Finance, 1*(1), 118-150. https://doi.org/10.1504/IJEFE.2006.008841

25. Chau, G., & Gray, S. J. (2010). Family ownership, board independence and voluntary disclosure: Evidence from Hong Kong. *Journal of International Accounting, Auditing and Taxation, 19*(2), 93-109. https://doi.org/10.1016/j.intaccaudtax.2010.07.002

26. Cheng, E. C. M., & Courtenay, S. M. (2006). Board composition, regulatory regime and voluntary disclosure. *The International Journal of Accounting, 41*(3), 262-289. https://doi.org/10.1016/j.intacc.2006.07.001

27. Cormier, D., Ledoux, M.-J., & Magnan, M. (2011). The informational contribution of social and environmental disclosures for investors. *Managerial Decision, 49*(8), 1267-1304. https://doi.org/10.1016/j.mde.2010.02.154

28. Craven, B. M., & Marston, C. L. (1999). Financial reporting on the Internet by leading UK companies. *European Accounting Review, 8*(2), 321-333. https://doi.org/10.1080/09638199336006

29. Cucari, N., Esposito De Falco, S., & Orlando, B. (2018). Diversity of board of directors and environmental social governance: Evidence from Italian listed companies. *Corporate Social Responsibility and Environmental Management, 25*(3), 250-266. https://doi.org/10.1002/csr.1452

30. Culman, M. J., McHugh, P., & Zubillaga, J. L. (2010). How large U.S. companies can use Twitter and other social media to gain business value. *MIS Quarterly Executive, 9*(4), 243-259. Retrieved from https://www.researchgate.net/publication/279833838_How_Large_US_Companies_Can_Use_Twitter_and_Other_Social_Media_to_gain_Business_Value

31. Dâmaso, G., & Lourenço, L. C. (2011). Internet financial reporting: Environmental impact companies and other determinants. Paper presented at the 8th International Conference on Enterprise Systems, Accounting and Logistics. Retrieved from https://www.academia.edu/1453052/Internet_Financial_Reporting_Environmental_Impact_Companies_and_other_Determinants

32. Debrekcy, R., Gray, G. L., & Rahman, A. (2002). The determinants of Internet financial reporting. *Journal of Accounting and Public Policy, 21*(4-5), 371-394. https://doi.org/10.1016/S0278-4254(02)00067-4

33. Desoky, A. M., & Mousa, G. A. (2013). The impact of firm characteristics and corporate governance attributes on internet investor relations — Evidence from Bahrain. *International Journal of Business and Emerging Markets, 5*(2), 119-147. http://doi.org/10.1504/IJBEM.2013.052974

34. El Ghoul, S., Guedhami, O., Kwok, C. C. Y., & Mishra, D. R. (2011). Does corporate social responsibility affect the cost of capital? *Journal of Banking & Finance, 35*(9), 2388-2406. https://doi.org/10.1016/j.jbankfin.2011.02.007
35. Eng, L. L., & Mak, Y. T. (2003). Corporate governance and voluntary disclosure. Journal of Accounting and Public Policy, 22(4), 325-345. https://doi.org/10.1016/S0278-4254(03)00037-1

36. Ettredge, M., Richardson, V. J., & Scholz, S. (2002). Dissemination of information for investors at corporate websites. Journal of Accounting and Public Policy, 21(4-5), 357-369. https://doi.org/10.1016/S0278-4254(02)00066-2

37. Ezzat, A., & El-Masry, A. (2008). The impact of corporate governance on the timeliness of corporate Internet reporting by Egyptian listed companies. Managerial Finance, 34(12), 848-867. https://doi.org/10.1108/03074350810915815

38. Fauzi, F., & Locke, S. (2012). Board structure, ownership structure and firm performance: A study of New Zealand listed-firms. Asian Academy of Management Journal of Accounting & Finance, 8(2), 43-67. Retrieved from https://www.researchgate.net/publication/287572483_Board_structure_ownership_structure_and_firm_performance_A_study_of_New_Zealand_listed-firms

39. Fisher, R., Oyelere, P., & Laswad, F. (2004). Corporate reporting on the Internet: Audit Issues and content analysis of practices. Managerial Auditing Journal, 19(3), 412-439. https://doi.org/10.1108/02686900410524418

40. Godfrey, P. C., Merrill, C. B., & Hansen, J. M. (2009). The relationship between corporate social responsibility and corporate disclosure. An empirical test of the risk management hypothesis. Strategic Management Journal, 30(4), 425-445. https://doi.org/10.1002/smj.750

41. Gray, R. H., Kouhy, R., & Lavers, S. (1995). Corporate social and environmental reporting: A review of the literature and a longitudinal study of UK disclosure. Accounting, Auditing and Accountability Journal, 8(2), 47-77. https://doi.org/10.1108/09513579510146996

42. Gul, F. A., & Leung, S. (2004). Board leadership, outside directors' expertise and voluntary corporate disclosures. Journal of Accounting and Public Policy, 23(3), 351-379. https://doi.org/10.1016/j.jaccpubpol.2004.07.001

43. Haque, F. (2017). The effects of board characteristics and sustainable compensation policy on carbon performance of UK firms. The British Accounting Review, 49(3), 347-364. https://doi.org/10.1016/j.bar.2017.01.001

44. Hossain, M., Perera, M. H. B., & Rahman, A. (1995). Voluntary disclosure in the annual reports of New Zealand companies. Journal of International Financial Management & Accounting, 6(1), 69-87. https://doi.org/10.1111/j.1467-466X.1995.tb00500.x

45. Ismail, T. H. (2002). An empirical investigation of factors influencing voluntary disclosure of financial information on the Internet in the GCC countries. https://doi.org/10.2139/ssrn.420707

46. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. Journal of Financial Economics, 3(4), 305-360. https://doi.org/10.1016/0304-405X(76)90026-X

47. Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. Business Horizons, 53(1), 59-68. https://doi.org/10.1016/j.bushor.2009.09.003

48. Kelton, A. S., & Yang, Y. (2008). The impact of corporate governance on Internet financial reporting. Journal of Accounting and Public Policy, 27(1), 62-87. https://doi.org/10.1016/j.jaccpubpol.2007.11.001

49. Krüger, P. (2009). Corporate social responsibility and the board of directors (Working Paper, Toulouse School of Economics, France).

50. Larrain, M., & Giner, B. (2002). The use of the Internet for corporate reporting by Spanish companies. The International Journal of Digital Accounting Research, 2(1), 53-82. https://doi.org/10.4192/ijdar.v2i1.53

51. Lindblom, C. K. (1994). The implications of organizational legitimacy for corporate social performance and disclosure. Paper presented at the Critical Perspectives on Accounting Conference.

52. Lourengo, I. C., Branco, M. C., Curto, J. D., & Eugenio, T. (2012). How does the market value corporate sustainability performance? Journal of Business Ethics, 108(4), 417-428. https://doi.org/10.1007/s10551-011-1102-8

53. Maclagan, P. (1999). Corporate social responsibility as a participative process. Business Ethics: A European Review, 8(1), 43-49. https://doi.org/10.1111/1467-8608.00124

54. McLelland, A. J., & Giroux, G. (2000). An empirical analysis of auditor report timing by large municipalities. Journal of Accounting and Public Policy, 19(3), 263-281. https://doi.org/10.1016/S0278-4254(00)00011-9

55. McAleer, M., Roberts, C. B., & Gray, S. J (1995). Factors influencing voluntary annual report disclosure by U.S., U.K. and Continental European multinational corporations. Journal of International Business Studies, 26(3), 555-572. https://doi.org/10.1057/palgrave.jibs.8490186

56. Mohamed, E. K. A., & Basuony, M. A. K. (2014). Determinants and characteristics of voluntary Internet disclosures in GCC countries. The International Journal of Digital Accounting Research, 14, 57-91. https://doi.org/10.4192/1577-8517-v14-3

57. Mohamed, E. K. A., & Basuony, M. K. A. (2015). Voluntary Internet disclosure in four GCC countries: A study of attributes and determinants. International Journal of Accounting and Finance, 5(2), 148-171. https://doi.org/10.1504/IJAF.2015.071838

58. Mohamed, E. K. A., Basuony, M. A. K., & Badawi, A. A. (2013). The impact of corporate governance on firm performance in Egyptian listed companies. Corporate Ownership & Control, 11(1), 691-705. https://doi.org/10.1108/14013380610672657

59. Momany, M. T., & Al-Shorman, S. A. (2006). Web-based voluntary financial reporting of Jordanian companies. International Review of Business Research Papers, 2(2), 127-139. Retrieved from https://www.researchgate.net/publication/303166449_Web-based_voluntary_financial_reporting_of_Jordanian_companies

60. Murphy, P. E., & Schlegelmilch, B. B. (2013). Corporate social responsibility and corporate social responsibility: Introduction to a special topic section. Journal of Business Research, 66(10), 1807-1813. https://doi.org/10.1016/j.jbusres.2013.02.001

61. Nadeem, M., Zaman, R., & Saleem, I. (2017). Boardroom gender diversity and corporate sustainability practices: Evidence from Australian Securities Exchange listed firms. Journal of Cleaner Production, 149, 874-885. https://doi.org/10.1016/j.jclepro.2017.02.141

62. Oliveira, L., Lima Rodrigues, L., & Craig, R. (2006). Firm-specific determinants of intangibles reporting: Evidence from the Portuguese stock market. Journal of Human Resource Costing & Accounting, 10(1), 11-33. https://doi.org/10.1108/14013380610672657

63. Oyelere, P., Laswad, F., & Fisher, R. (2003). Determinants of Internet financial reporting by New Zealand listed companies. Journal of International Financial Management & Accounting, 14(1), 26-63. https://doi.org/10.1108/1467-646X000089
64. Peterson, C. A., & Philpot, J. (2007). Women’s roles on U.S. fortune 500 boards: Director expertise and committee memberships. *Journal of Business Ethics*, 72(2), 177–196. https://doi.org/10.1007/s10551-006-9164-8
65. Robinson, G., & Dechant, K. (1997). Building a business case for diversity. *The Academy of Management Executive*, 11(3), 21–31. https://doi.org/10.5465/ame.1997.9709231661
66. Romano, M., Cirillo, A., Favino, C., & Netti, A. (2020). ESG (Environmental, social and governance) performance and board gender diversity: The moderating role of CEO duality. *Sustainability*, 12(21), 92–98. https://doi.org/10.3390/su12219298
67. Rose, C. (2007). Does female board representation influence firm performance? The Danish evidence. *Corporate Governance: An International Review*, 15(2), 404–413. https://doi.org/10.1111/j.1467-8683.2007.00570.x
68. Saha, A. K., & Akter, S. (2013). Corporate governance and voluntary disclosure practices of financial non-financial sector companies in Bangladesh. *Journal of Applied Management Accounting Research*, 11(2), 45–61. Retrieved from https://www.researchgate.net/publication/303823451_Corporate_Governance_and_Voluntary_Disclosure_Practices_of_Financial_and_Non-Financial_Sector_Companies_in_Bangladesh
69. Salama, A., Anderson, K., & Toms, J. S. (2011). Does community and environmental responsibility affect firm risk? Evidence from UK panel data 1994–2006. *Business Ethics: A European Review*, 20(2), 192–204. https://doi.org/10.1111/j.1467-8568.2011.01617.x
70. Saleh Al Arussi, A., Hisyam Selamat, M., & Mohd Hanefah, M. (2009). Determinants of financial and environmental disclosures through the Internet by Malaysian companies. *Asian Review of Accounting*, 17(1), 59–76. https://doi.org/10.1108/13217340910956513
71. Sartawi, I., Hindawi, R., Bsoul, R., & Ali, A. (2014). Board composition, firm characteristics, and voluntary disclosure: The case of Jordanian firms listed on the Amman Stock Exchange. *International Business Research*, 7(6), 67–82. https://doi.org/10.5539/ibr.v7n6p67
72. Scholtens, B. (2008). Corporate social responsibility in the international banking industry. *Journal of Business Ethics*, 86(2), 159–175. https://doi.org/10.1007/s10551-008-9841-x
73. Simpson, W. G., & Kohers, T. (2002). The link between corporate social and financial performance: Evidence from the banking industry. *Journal of Business Ethics*, 35(2), 97–109. https://doi.org/10.1023/A:1013082525900
74. Stephenson, C. (2004). Leveraging diversity to maximum advantage: The business case for appointing more women to boards. *Ivey Business Journal*, 69(1), 1–5. Retrieved from https://iveybusinessjournal.com/publication/leveraging-diversity-to-maximum-advantage-the-business-case-for-appointing-more-women-to-boards/
75. Wang, H., Tong, L., Takeuchi, R., & George, G. (2016). Corporate social responsibility: An overview and new research directions. *Academy of Management Journal*, 59(2), 534–544. https://doi.org/10.5465/amj.2016.5001
76. Watson, A., Shrives, P., & Marston, C. (2002). Voluntary disclosure of accounting ratios in the UK. *The British Accounting Review*, 34(4), 289–313. https://doi.org/10.1006/bare.2002.0213
77. Williams, R. J. (2003). Women on corporate boards of directors and their influence on corporate philanthropy. *Journal of Business Ethics*, 42(1), 1–10. https://doi.org/10.1023/A:1021626024014
78. Xiao, J. Z., Yang, H., & Chow, C. W. (2004). The determinants and characteristics of voluntary Internet-based disclosures by listed Chinese companies. *Journal of Accounting and Public Policy*, 23(3), 191–225. https://doi.org/10.1016/j.jaccpubpol.2004.04.002
79. Yekini, K., Adelopo, I., Andrikopoulos, P., & Yekini, S. (2015). Impact of board independence on the quality of community disclosures in annual reports. *Accounting Forum*, 39(4), 249–267. https://doi.org/10.1016/j.accfor.2015.05.004

**APPENDIX**

| Online CSR index | Categories | Items |
|------------------|------------|-------|
| 1. Website employees disclosure index (WEMPDI) | Employee (7 items) | • Health and safety  
• Training and education  
• Employees benefits  
• Profiles of employees  
• Share option for employees  
• Award for health and safety programs  
• Other employees information |
| 2. Website community disclosure index (WCOMMMDI) | Community (5 items) | • Donation and charity programs  
• Scholarships programs  
• Sponsoring sport/recreational activities  
• Supporting national projects  
• Sponsoring health programs |
| 3. Website social product and service disclosure index (WPSDI) | Social product and service (5 items) | • Product development  
• Product safety  
• Product quality  
• Product diversity  
• Social products |
| 4. Website environment disclosure index (WENVDI) | Environment (7 items) | • Environmental policies  
• Pollution control  
• Prevention/reparation programs  
• Air emission information  
• Energy saving  
• Conservation and recycling materials  
• Award for environmental activities |