As an important information intermediary, financial analyst plays a significant role to form the judgments of different stakeholders and affect their decision-making process (He et al., 2019). Financial analysts predict the future performance of the company and release the research reports including their earnings forecasts and stock recommendations. In this context, the role of financial analysts can be constructive with respect to boosting the investors' confidence and increasing the stock market efficiency and liquidity (Mattei and Platikanova, 2017). In line with the paramount role of analysts, it is pivotal to explore what drivers and conditions influence on the properties of their research activities' output (i.e., earnings forecasts). In our study, we focus on the two most prevalent characteristics of financial analysts' earnings forecasts known as analysts' forecast error and analysts' forecast dispersion (Ali et al., 2019, Garrido-Miralles et al., 2016, Hinze and Sump, 2019, Mattei and Platikanova, 2017, Wei and Xue, 2015). Analysts' forecast error originates from the absolute difference between the mean earnings per share forecast and the actual earnings per share, and higher values of this indicator denote to lower (higher) forecast accuracy (error).We also know that financial analysts may deploy disparate approaches to predict earnings that can be influenced by different type of conditions (He et al., 2019). Hence, stakeholders may take into the account more than a single analyst's opinion. In this context, analysts' forecast dispersion provides us with the precious information about the severity of disagreement in the analysts' various opinions about the future performance of the firm (Mattei and Platikanova, 2017). In the research activities done by financial analysts, they rely on different information sources incorporating both the financial and nonfinancial disclosures provided by the companies (Dhaliwal et al., 2012). In literature, many reasons such as globalization, financial crises, accelerating trend of socially responsible investment, and high-tech advancement have been proposed to explain the importance and value relevance of non-financial information for different capital market participants including financial analysts and investors (He et al., 2019, Mattei and Platikanova, 2017). As an important source of non-financial disclosures made by companies, CSR disclosures, particularly disclosures about social and environmental issues have gained remarkable weight and significance. This significance originates from the fact that companies face with public demand and pressure from different stakeholders to be more and more transparent about social and environmental issues, and investors take into considerations the transparency degree of companies in their investment decision-making procedure (Yu et al., 2018). Former research has primarily focused on the social and environmental performance of companies and the consequences of these performances (Benlemlih and Bitar, 2018, Chih et al., 2008, De Bakker et al., 2005, Waddock and Graves, 1997). However, there are not numerous studies about the outcomes of the quantity and transparency of social and environmental disclosures of companies. In this context, our study intends to fill this gap in the setting of financial analysts' forecast properties. Specifically, we investigate the influence of corporate-level social and environmental transparency on financial analysts' forecast error and dispersion. Based on the prior literature (Cucari et al., 2018, Cui et al., 2018, Hinze and Sump, 2019, Muslu et al., 2019, Yu et al., 2018), we propose that firms that enjoy high level of social and environmental transparency, they suffer less from information asymmetry and agency problems. This lower level of information asymmetry helps analysts to have more accurate (less error) and less dispersed earnings forecasts. Our argument has support from the theoretical perspective of information economics, and it is in with voluntary disclosure theory (Hinze and Sump, 2019). Based on these theories, social and environmental disclosure transparency provide material and value relevant incremental information that help companies to overcome agency and information asymmetry problems (Eccles et al., 2011, Hinze and Sump, 2019). The other supporting theoretical perspective for our argument originates from stakeholder theory (Freeman, 1984). Based on the stakeholder theory, social and environmental transparency help firms to enhance their values due to accrued reputation capital and competitive advantage generated by the high degree of social and environmental transparency engagement (Yu et al., 2018). In this context, by the use of 2466 firm-year observations related to non-financial and non-utility firms listed in US S&P 500 index over the period of 2012-2018, our study explores (1) whether social and environmental transparency are associated with financial analysts' forecast error and dispersion; and (2) in what kind of situation the mentioned associations become more pronounced from three perspectives of corporate governance, financial reporting quality, and media coverage. Finally, we investigate the association of social and environmental transparency with firm-level investment efficiency.

Following previous studies (e.g., Eccles et al., 2011, Manita et al., 2018, Yu et al., 2018), we rely on Bloomberg's social and environmental scores as measures of social and environmental transparency. More details of Bloomberg's social and environmental transparency scores are presented in the research design segment. Our results suggest that, there is a negative and significant association between both of the social and environmental transparency with both of the financial analysts' forecast error and dispersion. We also find that the association of social/environmental transparency with each of analysts' forecast error and dispersion become more pronounced for weakly governed companies (measured by Bloomberg's score), firms having low level of financial reporting quality (measured by (DeFond and Park, 2001) model), and companies having low level of media coverage (based on the number of news reports published in FACTIVA database). In general, our findings suggest that environmental and social transparency as external monitors are more strengthened when the other monitoring mechanisms such as media coverage, financial reporting quality, and governance are not strong, implying a substitutional role of the social and environmental disclosure transparency in monitoring. In an additional analysis, to make our argument about the influence of social/environmental transparency on information asymmetry and agency problems more robust, we investigate the impact of social/environmental transparency on firm-level investment efficiency. In other words, if we believe that social and environmental transparency can mitigate the information asymmetry issue and help the analyst to have a richer and more transparent information environment; this information asymmetry reduction might be tangible and can be shown in the context of firm-level investment efficiency as well. In this context, our results suggest that both of the social and environmental transparency are positively and significantly associated with firm-level investment efficiency (measured by (Biddle et al., 2009) proposed model) and they are negatively and significantly associated with both of the firm-level over-investment and under-investment inefficiencies. These findings are in line with our proposition that social and environmental transparency can attenuate information asymmetry concern that is reflected in lower financial analysts' error and dispersion. To mitigate this concern that disclosure transparency (i.e., social and environmental transparency) and analysts' forecast properties (i.e., analysts' forecast error and dispersion) might be endogenously determined, we initially use Hausman test (Hausman, 1978) and results suggest that the null hypothesis of no endogeneity is not rejected. Hence, we rely on OLS estimator for our analysis. In addition, we lag our independent variables by one period to alleviate concerns related to concurrent endogeneity problem. We also include year and industry (based on two-digit SIC code) fixed effects in our model, and we estimate our model with t-statistics clustered at the firm level that is robust to both heteroscedasticity and within-firm serial correlation. Finally, since our sample period includes post Regulation Fair Disclosure [1], the concern that the disclosure transparency and analysts' forecast properties are endogenously determined by private information is attenuated. Our study provides several contributions. First, we extend the literature that focuses on the consequences of social and environmental transparency (Bernardi and Stark, 2018, Biddle et al., 2009, Cucari et al., 2018, Manita et al., 2018, Yu et al., 2018) by introducing two novel outcomes of more accurate and less dispersed financial analysts' earnings forecasts to this literature. We also add to prior research (Aerts et al., 2008, He et al., 2019, Heo and Doo, 2018, Hsu and Chang, 2011, Mattei and Platikanova, 2017, Ngobo et al., 2012) that tries to present evidence about the materiality and value relevance of non-financial information disclosure as we show that higher disclosure transparency results in higher (lower) investment efficiency (financial analysts' forecast error and dispersion). Secondly, to best of our knowledge, our paper is the first one to provide evidence about the moderating roles of the firm-level characteristics of financial reporting quality, corporate governance, and media coverage on the association of disclosure transparency and financial analysts' forecast properties. Thirdly, our paper is the first one to examine the association of social and environmental transparency and firm-level investment efficiency. Our results imply that the high degrees of social and environmental transparency have remarkable economic influences on capital investment decisions (shown by lower under-investment and over-investment firm-level inefficiencies), which may be

[1] Regulation Fair Disclosure (Reg. FD), introduced in 2000, forbids companies from selectively releasing private information to financial analysts.

due to the enhanced visibility (decreased information asymmetry) that stakeholders enjoy with higher disclosure transparency.