

SESSION 3: AUDITING AND ACCOUNTING

**THE INTERNATIONAL EFFECT OF CEO
SOCIAL CAPITAL ON THE VALUE
RELEVANCE OF ACCOUNTING METRICS**

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Abstract

We investigate the effect of chief executive officer (CEO) social capital, proxied by the CEO network centrality, on the value relevance of accounting metrics for non-US firms, and the roles country-level governance attributes play during the valuation process. We find a strong positive relation between CEO social capital and the value relevance of book equity but a strong negative relation between CEO social capital and the value relevance of earning metrics. Further analysis shows that the results are robust with the use of different regression models, and that strong country-level governance quality cannot significantly alter the significant negative relation between CEO social capital and value relevance of earning metrics. Interestingly, we find that the positive relation between CEO social capital and the value relevance of book equity is weakened while the negative relation between CEO social capital and value relevance of earnings metrics is strengthened for firms in developed countries where country-level governance is stronger and institutional investors play a more important role in the market. Overall, our evidence supports the theory that CEO social capital has both “positive” and “detrimental” effects on firm and market outcomes.

1. INTRODUCTION

A growing number of studies investigate the effect of social connections between top executives, managers, board members on firm and market outcomes. In each case, authors argue that the direct or indirect connections between executives, sometimes referred to as executives' social capital, is an important intangible asset of the firms and that the executives' connections/social capital have an important indication of the firms' economic activities and financial policies (Bebchuk, Cremers, & Peyer, 2011; Engelberg, Gao, & Parsons, 2011; Fracassi & Tate, 2012; Larcker, So, & Wang, 2013; El-Khatib, Fogel, & Jandik, 2015; Fracassi, 2017; Ferris, Javakhadze, & Rajkovic, 2017a, 2017b; Egginton & McCumber, 2019; Luehlhing, McCumber, & Qiu, 2022). Executives' social capital can bring benefits to the firms by allowing the executives to have easier access to information and resources through the network, and helps executives make better decisions for the firms that they manage. To some extent, social capital can also serve as a governance mechanic to monitor the executives' behaviors and help enable "trustworthy" activities, which in turn, help improve the reputation of those executives within the network. Such a "governance" role can be more important in an environment where external governance is weaker. Social capital, however, can potentially bring detrimental effect to the firms by potentially mitigating the effect of other governance mechanics on the executives, and inducing the executives to seek for more "rent extracting" activities. The negative effect could be more pronounced in an environment where external governance is weaker and the level of corruption is higher (Faccio, 2006).

In this study, we examine how chief executive officer (CEO) social capital, as one important type of the executives' social capital, affects the value relevance of accounting metrics taking into consideration the governance quality and economic development status of a country. The value relevance of accounting metrics is important as it measures the usefulness of accounting information from the perspective of equity investors (Barth, Beaver, & Landsman, 2001). The value relevance of accounting metrics also conforms to the ultimate objective of financial reporting: to provide relevant information on performance and to assist investors in equity valuation and making investment decisions. From the perspective of the firms, the increased value relevance of accounting metrics can lower the information risk for investors, who in turn, may request a lower equity risk premium for investment, and that leads to a potentially lower cost of equity for the firms (Francis, LaFond, Olsson, & Schipper, 2004).

Examining the effect of CEO social capital on the value relevance of accounting metrics can help us better understand the impact of CEO social network on firm and market outcomes, as well as the importance of intangible assets on the valuation process (Amir & Lev, 1996; 28.

Hughes, 2000; Francis, Hasan, Siraj, & Wu, 2019; Luehlfing et al., 2022). The result also has practical implications. If CEO social capital is proved to have an important influence on the value relevance of accounting metrics, practitioners should take into consideration this important intangible asset when they evaluate the intrinsic value of a company's common equity using the residual income method.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

As the usefulness of financial accounting information is a joint product determined by the quality of corporate financial reporting and the response from equity investors from the financial market, the value relevance of accounting metrics can be affected by many factors. For example, firms with different characteristics, such as size, profitability, growth potential, and negative book value, can report accounting metrics that are more or less useful to investors (Collins, Magdew, & Weiss, 1997; Collins, Pincus, & Xie, 1999; Francis & Schipper, 1999; Hodgson & Stevenson-Clarke, 2000; Brown & Shivakumar, 2003). As the financial reporting may reflect different incentives of its top executives and managers, whose behaviors are directly monitored by other corporate governance mechanics of the firms, the value relevance of accounting metrics can be deviated for firms with different characteristics of their managers, executives, and corporate governance (Francis et al., 2019; Davis-Friday, Eng, & Liu, 2006; Luehlfing et al., 2022). The financial reporting and the investors' behaviors can also be influenced by macro-level attributes of a country, such as its accounting standard, sophistication of the financial market, the rules and regulations imposed by the government, and investor protection. Such country-level attributes, governance quality, in particular, can potentially affect the value relevance of accounting metrics (Alford, Jones, Leftwich, & Zmijewski, 1993; Ali & Hwang, 2000; Bushman & Smith, 2001; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1997, 1998, 2000). Although the valuation process is invisible, we argue that the CEO social capital can affect the valuation process through the information and reputation channels, as well as the power CEOs accumulate through the above channels.

The value relevance of accounting metrics may be higher in a country with a more sophisticated financial market, and better governance quality, whereas CEO social capital may play a more important "governance" role to provide more relevance and reliable accounting information to the markets in a country with the less developed financial market and lower governance quality. The opposite assumption can also be legit as CEOs with higher social capital may engage in more rent-seeking behaviors in an environment with lower

governance quality. There's also a possibility that investors in the market may ignore CEO social capital during the valuation process as CEO social capital is an intangible asset that is not normally recognized by any accounting standards; thus, CEO social capital would not affect the value relevance of accounting metrics at all. With the discussions above, we form three hypotheses, to test the effect of CEO social capital on the value relevance of accounting metrics in the hypothesis 1 (*H1*), and to test whether the effect of CEO social capital on the value relevance of accounting metrics differs in countries with high- and low- governance quality and in developed and developing countries in the hypotheses 2 (*H2*) and 3 (*H3*).

3. SAMPLE CONSTRUCTION

To further investigate this topic, we first follow previous literature and create CEO network centrality measurements to proxy for CEO social capital (El-Khatib et al., 2015; Egginton & McCumber, 2019; Egginton, McBrayer, & McCumber, 2020; Fogel, Jandik, & McCumber, 2018). We argue that our centrality measurements can capture the power and influence the CEOs have within their network and can therefore represent the essential aspects of the social capital. In particular, we collect current board position data of executives for non-US firms from Boardex and create four different proxies for social capital, including *Degree*, *Eigen*, *Between*, and *Close* based on a number of direct ties with others in the network, the connections to the “connected” people in the network, how often an individual lie on the shortest distance between other two members, and the inverse of the sum of shortest distances between an individual and other individuals in the network. We also use the principal component method to create the last social capital proxy, *PCA*, to capture the common features of the four different proxies. Next, we obtain relevant financial and price information from Thomson Reuters Worldscope dataset, daily currency exchange information from International Monetary Fund (IMF), and other country-level attributes from the World Bank. Lastly, we exclude the firms in the financial (SIC 6000-6999) and utility industries (SIC 4400-4499) and firms with missing information for variables required in our empirical analysis.

4. RESEARCH METHODOLOGY AND EMPIRICAL RESULTS

We first examine the relation between *CEO social capital*, *Book value per share*, and *Earnings per share*. Following Ohlson (1995), we regress future equity price on *Book value per share*, *Earnings per share*, *Social Capital*, the interactions terms between these variables, along with some controlled variables that can potentially affect the value relevance of

accounting metrics, and we emphasize on the impact of CEO social capital on the incremental explanatory power of *Book value per share* and *Earnings per share* on the future price, or the coefficients of the interaction terms between *Social Capital* and *Book value per share* and between *Social Capital* and *Earnings per share*. We find that the coefficients for all the interaction terms between *Social Capital* and *Book value per share* are positive and significant ($p < 0.01$) while the ones for the interaction terms between *Social Capital* and *Earnings per share* are negative and significant ($p < 0.05$). The effects are also economically large. Setting *Degree* as an example, holding other variables constant at mean value, moving from the 25th to the 75th percentile of CEO social capital in our sample, one dollar increase in *Book value per share* and *Earnings per share* results in 1.7% increase and 5% decrease in the market price of common equity in the sample, respectively.

To ensure that our results are not biased due to the use of the ordinary least square (OLS) model, we re-analyze our results using three different regression models: sensitivity analysis by excluding observations from Canada, weighted least square (WLS) model, and two-stage least square model and we find that our results hold in each scenario. In the un-tabulated test, we also re-estimate our results by substituting the social capital measurement with mean social capital in a country in the OLS regression and also observe similar results.

Next, we examine how governance quality and economic development status of a country affect the positive (negative) effect of CEO social capital on the value relevance of book value (earnings). To do so, we create dummy variables to proxy for high-quality governance groups and for developed countries, including the dummy variables into our baseline model, and interact the dummy variables with the variables of interest. Interestingly, we find that the positive effect of CEO social capital on the value relevance of book value of equity is significantly weakened in the high-quality governance group, but we also find that there's no significant difference in the effect of CEO social capital on the value relevance of earnings metrics between high- and low- quality governance group.

As for the impact of the economic development status of a country, we find that the positive effect of CEO social capital on the value relevance of book value of equity is significantly weakened in developed countries, similar to the one in high-quality governance group. Interestingly, we also find that the CEO social capital has some strong positive effects on the value relevance of earning metrics in developing countries whereas the effect of CEO social capital turns strong negative in developed countries. In another word, the strong negative relation between CEO social capital and value relevance of earning metrics concentrates in firms in developed countries. It is worth noting that

developed countries often have more sophisticated financial markets, higher governance quality and higher institutional ownership which has been documented in previous literature as an extra layer of corporate governance (Bushee & Noe, 2000; Chung & Zhang, 2011; Harford, Kecksks, & Mansi, 2018), so the overall result suggests that high governance quality can weaken the strong positive relation between CEO social capital and value relevance of book value of equity, but not alter the strong negative relation between CEO social capital and value relevance of earning metrics. To some extent, the existence of significant positive relation between CEO social capital and value relevance of earning metrics in developing countries suggests that CEO social capital plays a more important "governance" role to induce sub-optimal CEOs' behaviors to report more value relevant earning metrics for the firms in an environment where governance quality is lower.

5. CONCLUSION

In this study, we examine the relation between CEO social capital and the value relevance of accounting metrics for non-US firms. We find that firms with higher CEO social capital have higher (lower) value relevance of book value (earnings). Additional tests show that the results are robust with the use of sensitivity analysis, WLS model, and two-stage least square model. Additionally, we also examine whether the governance quality of a country can strengthen or weaken the impact of CEO social capital on the value relevance of accounting metrics. Through the analysis, we find that high governance quality can weaken the positive impact of CEO social capital on the value relevance of book value of equity, but cannot alter the negative impact of CEO social capital on the value relevance of earnings. We also document evidence that CEO social capital has a strong negative (positive) impact on the value relevance of earnings in developed (developing) countries where governance quality is high (low). To some extent, the evidence supports the theory that the CEO social capital can be a substitute for external governance mechanics in a country to monitor CEOs' behavior (Engelberg et al., 2011; Ferris et al., 2017a).

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