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**ANALYZING ANALYST RESEARCH: A REVIEW OF PAST COVERAGE AND
RECOMMENDATIONS FOR FUTURE RESEARCH**

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ABSTRACT

As visible and knowledgeable experts who constantly collect, analyze and disseminate information about the future prospects of publicly listed firms, financial analysts fulfill an important information brokerage and monitoring function for investors. By providing investment advice, financial analysts also influence the demand for a firm's stock and thus its price. Executives pay close attention to financial analysts' earnings forecasts and recommendations, so much so that they are frequently criticized for excessive focus on their forecasts at the expense of the long-term interests of the firm. But while research on analysts in strategic management is steadily growing, we lack a coherent understanding of the extent and nature of analysts' diverse influences on executives' and investors' decision-making, and the context in which analysts operate. This is largely due to the fragmentation of the literature and the absence of prior reviews or meta-analyses of the topic. By organizing, synthesizing and analyzing extant research efforts on analysts in the various domains of strategic management research, we aim to advance our knowledge on the influence of analysts on firms and investors. Further, we hope that our analyses and recommendations help further increase research coverage on this important organizational stakeholder.

Keywords: financial analysts; strategic decision-making; firm financial performance

ANALYZING ANALYST RESEARCH: A REVIEW OF PAST COVERAGE AND RECOMMENDATIONS FOR FUTURE RESEARCH

INTRODUCTION

Strategic management has been conceptualized as dealing with the strategic decisions taken by executives on behalf of owners to enhance a firm's financial performance (Nag, Hambrick, & Chen, 2007: 944). An extensive body of research on corporate strategy, corporate governance and strategy process has generated diverse insights into strategic decision-making and its effects on firm financial performance. While upper echelons theory (Hambrick & Mason, 1984) has stressed the role of executives in strategic decision-making, the agency theoretical perspective (Jensen & Meckling, 1976) has drawn attention to the role of boards of directors and owners in monitoring and influencing executive decision-making (e.g., Boyd & Solarino, 2016). These dominant perspectives have been complemented by institutional theory (DiMaggio & Powell, 1983) and stakeholder theory (Freeman, 1984), which highlight the role of the firm's external constituents on executives' strategic decisions and their outcomes (Aguilera, Desender, Bednar, & Lee, 2015; Hutzschenreuter & Kleindienst, 2006). As pointed out in a recent review on corporate governance by Aguilera et al. (2015), however, management research has been relatively slow to recognize the importance of these external constituents.

For publicly listed firms, attention seems especially warranted considering the influence of various constituents within the financial markets (institutional investors, money managers, etc.) on strategic decision-making. As evidenced by the results of practitioner surveys, the popular business press (e.g., "The Pied Pipers of Wall Street"), social movements (e.g., "Occupy Wall Street") and public policy debates leading to regulatory changes (e.g., Regulation Fair Disclosure; Sarbanes-Oxley Act), financial analysts have been recognized as one particular group

having a particularly marked influence on strategic decision-making.¹ This review intends to draw attention to this important, but relatively neglected constituent.

Given the widely acknowledged importance of financial analysts and the absence of any prior review or meta-analysis on this topic, we believe a comprehensive review of research on analysts in strategic management is much needed. In this paper, we clarify their diverse roles and influence and provide a comprehensive account of the current state of knowledge on analysts in the different domains of management research (corporate strategy, corporate governance, organization theory, competitive strategy, strategic human capital, international business, behavioral strategy, corporate social responsibility). This synthesis and analysis of the literature offers a better understanding of how research on financial analysts can advance our knowledge about strategic decision-making. Further, to help improve current research practices, we highlight the gaps and challenges that cut across research in the different domains. Finally, we develop recommendations for future studies in these different domains. By demonstrating how analysts are pivotal actors in multiple research contexts, it is our hope that our review appeals to a wide audience in strategic management research, and motivates scholars from different domains to conduct research on analysts' disparate influences on managers and investors. In summary, we believe that future work on analysts has not only great potential to enrich the academic discourse in different domains of strategic management research but provides for an opportunity to contribute to ongoing debates in public policy and economics as to the value add of analysts.

CLARIFYING THE ROLE AND INFLUENCE OF FINANCIAL ANALYSTS

As illustrated in Figure 1, financial analysts take on an important intermediary position in the relationship between the firm and investors.

Insert Figure 1 about here

Financial analysts are highly trained securities specialists, employed by investment banks and brokerage firms, who specialize by industry and who issue research reports that reflect their understanding of a firm's industry, strategy, and management quality along with a specific stock recommendation and earnings forecast.² The key audience for their research is institutional investors. By providing investment advice, financial analysts influence firm value by increasing investor awareness as well as the demand for a firm's stock and thus its price (Stickel, 1992; Womack, 1996).

There are two competing perspectives as to the role and influence of analysts. On the one hand, as visible and knowledgeable experts on the firm and by constantly analyzing and disseminating information about the future prospects of a firm, financial analysts are perceived as information intermediaries that fulfill an important monitoring function in the financial markets (Jensen & Meckling, 1976; Womack, 1996). This perspective views analysts as rational and independent agents who provide analytical evaluations of a firm that are not subject to the influence of cognitive biases and social context. Alternatively, sociologists and behavioral finance scholars (e.g. Hirschleifer, 2015) argue that analysts are not perfectly rational and instead are subject to biases that can influence their judgments (Kahneman, 2003, Tversky & Kahneman, 1985). According to these perspectives, analysts tend to be overoptimistic in their forecasts to ensure access to firm executives (Das, Levine, and Sivaramakrishnan, 1998; Lim, 2001) and

their forecasts may be compromised by managerial tactics and impression management (e.g., Biehl-Missal, 2011; Cohen, Frazzini & Malloy, 2012; Washburn & Bromiley, 2014; Westphal & Clement, 2008; Westphal & Graebner, 2010). Furthermore, due to career and reputational concerns (Hong, Kubik, & Solomon, 2000), as well as a quest for legitimacy (Rao, Greve & Davis, 2001), they may ignore their own private information and imitate other analysts (Lieberman & Asaba, 2006), resulting in herding behavior. Beunza and Garud (2007:20) attempt to harmonize these contrasting perspectives by proposing that it may be beneficial to view analysts as frame-makers who “combine mental models and social clues in their calculations” to arrive at firm valuations.

Regardless of the perspective, financial analysts constitute a prominent and legitimate authority because of their perceived expertise (Zuckerman, 1999), independence (Fogarty & Rogers, 2005), and the wide dissemination of their opinions (Groysberg & Lee, 2008; Michaely & Womack, 1999; Pollock & Rindova, 2003; Stickel, 1995). Analysts’ role as information intermediaries and as an external monitor for investors has been the primary focus of research in accounting and corporate finance (see linkages 7 and 8 in Figure 1). A growing body of literature on analysts in management, however, indicates that analysts’ influence is not limited to investors, but extends to the firm and its management (linkage 1 in Figure 1). Through their extent of coverage (i.e., number of analysts covering a firm), the nature of their recommendations (e.g., buy, sell, hold) and earnings forecasts, analysts influence executives’ aspirations levels (i.e., performance targets) and time horizons, and thereby their investment preferences and choices. The most prominent and most widely discussed ramification of analysts’ influence on executives is what has been labelled the “quarterly earnings race” (or “earnings pressure”). Research has shown that executives make “purposeful interventions” in order for the firm to meet or beat

analysts' earnings expectations (Kinney, Burgstahler, & Martin, 2002; Roychowdhury, 2006). This practice is widespread since investors penalize firms with earnings shortfalls (e.g., Bartov, Givoly, & Hayn, 2002), while meeting the analyst consensus earnings forecasts lowers executives' employment risk (e.g., Wiersema & Zhang, 2011). As a result, executives are not only motivated to meet analysts' expectations but also to embrace measures to influence analyst coverage and their recommendations (linkage 2 in Figure 1).

In addition to investors and the firm, financial analysts influence the media, which prominently features analysts' views when reporting major corporate actions such as acquisitions, divestitures, or new products announcements, and which routinely references the analyst consensus earnings forecast when reporting firms' quarterly earnings (linkage 3 in Figure 1). At the same time, analysts are influenced by regulatory bodies and their employers (investment banks) (linkages 4 and 5 in Figure 1). When analysts make their earnings forecasts and stock recommendations they are in fact influenced by factors other than those that affect a firm's future performance (Fogarty and Rogers, 2005). The interrelationship between analysts and their employers gives rise to a conflict of interest for analysts who are presumed to provide independent investment advice to institutional investors. This investment advice, however, is at risk of being positively biased because their employers seek to provide investment banking services to the firms that are covered and evaluated by an analyst (Hayward & Boeker, 1998; Hirsch & Pozner, 2005). Finally, analysts also influence each other (linkage 6 in Figure 1), with star analysts exerting a particular strong influence on the coverage decisions and recommendations of other analysts (Hernsberger & Spiller, 2016; Rao, et al., 2001).

In total, the interrelationships depicted in Figure 1 show that our understanding of the factors that influence strategic decisions, as well as how investors value a firm and its

management, would be incomplete without considering the role of financial analysts. To generate an improved understanding of the interplay between firms, executives, and the financial markets, a growing but largely fragmented body of research in management has explored the role and influence of analysts. This literature will be identified, organized and reviewed next.

REVIEW AND SYNTHESIS OF ANALYST RESEARCH IN MANAGEMENT

Identification of Relevant Literature

To identify relevant articles on analysts in management research over the past 40 years (1976-2016),³ we limited our search to the following set of high-impact scholarly management journals:⁴ *Academy of Management Journal*, *Academy of Management Review*, *Administrative Science Quarterly*, *Journal of International Business Studies*, *Journal of Management*, *Journal of Management Studies*, *Management Science*, *Organization Science*, *Organization Studies*, and *Strategic Management Journal*. Using the Web of Science Social Citation Index (SSCI) database and early view/in-press sections of the journals, we searched for all articles in these journals which contained the term “analyst” or “securities analyst” in the title, abstract, author keywords, or KeyWords Plus section. Given the high managerial relevance of our topic, we also included articles practitioner-oriented outlets, namely *California Management Review*, *Harvard Business Review*, and *MIT Sloan Management Review*.

Our search process for academic publications in management on analysts resulted in finding 106 articles, which we coded according to the main research focus and theoretical perspective. Based on the authors’ independent coding, we were able to categorize research on analysts within five major domains of the strategic management literature: Corporate Strategy, Corporate Governance, Organization Theory, Competitive Strategy, and Strategic Human Capital.⁵ In Table 1, we provide an overview of the research on analysts in these five domains by

synthesizing the major research questions addressed, the major theoretical perspectives utilized, and the major empirical relationships studied. We also reference a few exemplary studies within each research stream. Our identification of the literature reveals that about three quarters of all relevant articles (74%) have been published between 2010 and 2016, showing that financial analyst research is a nascent but fast growing research topic.

Insert Table 1 about here

Five Domains of Analyst Research

Research on analysts has developed somewhat separately along five different domains in strategic management: Corporate Strategy, Corporate Governance, Organization Theory, Competitive Strategy, and Strategic Human Capital. Next, we highlight the main characteristics and insights of work on analysts in these five domains.

Corporate strategy. Studies that examine the relationship between analysts and corporate strategy largely draw on institutional theory and predominantly emphasize the legitimizing role of analysts – i.e., how their coverage and recommendations influence what is deemed as “appropriate behavior”. In one of the earliest contributions on the topic in management research, Zuckerman (2000) examines firm de-diversification (through divestiture) as a reaction to analyst coverage. Zuckerman (2000) shows that firms de-diversify not only to give in to pressures by institutional investors but also to create a more coherent product identity in the stock market that facilitates firm valuation by analysts. Because analysts specialize by industry, firms that are diversified in many industries complicate valuation for analysts and contradict the division of labor among analysts – a phenomenon called coverage mismatch. Coverage mismatch refers to an increased chance of mis-valuation when analysts find it more

difficult to understand the firm and to assess its prospects. Analysts are assumed then to discount a firm's share price or to abandon coverage, leading to reduced demand for the firm's stock. In support of this notion, Zuckerman (1999) finds that coverage mismatch increases the firms' likelihood to reduce its strategic scope.

That analyst coverage mismatch is a concern is further substantiated by Litov, Moreton, and Zenger (2012). The authors argue that, in assessing a firm's earnings prospects, analysts need to expend more effort on firms that have diversified portfolios. As a result of this additional effort, diversified firms in an industry have less analyst coverage than their more focused industry competitors. This study, along with Zenger (2013), argue that firms that follow a unique strategy are penalized by analysts since they do not neatly fit within a single industry. But while the research provides clear evidence that analysts are responsible for the discount that diversified firms experience, Zenger (2013) and Litov et al. (2012) also find that firms with more unique strategies (e.g. ones that have multiple businesses) have higher performance when measured using Tobin's q.

The studies by Feldman, Gilson and Villalonga (2014) and Feldman (2016) further our understanding of the relationship between the extent and nature of analyst coverage and firm corporate strategy. To examine the potential cause of the "diversification discount" Feldman et al. (2014) examine corporate spin-offs and find that analysts that "put more effort" into their reports by explaining the rationale for the spin-off are more accurate in their future earnings forecasts for diversified firms post-spin-off as compared to analysts that do not provide such detail. Further, Feldman (2016) theorizes and finds that so-called legacy spin-offs that involve a firm's original (core) business are associated with a particularly high likelihood of analyst coverage initiation and termination. Furthermore, only analysts that provide explicit detail on the

particular business unit prior to the spin-off show greater accuracy in their forecasts of that business post-spin-off. This study provides evidence that analysts do not fully understand how to evaluate a diversified firm, indicated by inability to provide accurate earnings forecasts for the firm and its spin-off.

While the above research indicates that analysts are more accurate in their assessments when firms have more focused corporate strategies, there is also research to indicate that analysts may overvalue a strategy of refocusing. Drawing on neo-institutional and management fashion theory research, Nicolai, Schulz, and Thomas (2010), show that firm refocusing (through divestiture) is associated with a systematic positive bias regarding future earnings by analysts in the 1990s, suggesting that this overvaluation of refocusing firms may have been partly triggered by the popularity of the core competence discourse at that time.

In addition to examining how analysts may influence a firm's diversification scope and stock market performance, corporate strategy research has also examined how analyst coverage and recommendations influence the completion likelihood and financial consequences of mergers and acquisitions. Shen, Tang, and Chen (2014) propose that, because major decisions such as mergers and acquisitions (M&A), are embedded in a social context, the relative status of acquirer and target firms are likely to influence how investors respond. They find that abnormal returns associated with an acquisition announcement are higher for both the acquirer and target firms when there is a greater differential in acquirer-target status, as measured by the difference in analyst coverage between the two firms. In addition, a greater differential in acquirer-target status also predicts a higher probability of deal completion and greater post-acquisition performance. Similarly, Becher, Cohn, and Juergens (2015) examine the role of analyst recommendations on the likelihood of M&A deal completion and post-merger performance.

Analyzing more than 5000 merger announcements, they find that the number of positive post-merger stock recommendations issued by analysts for the acquiring firm increases the likelihood of deal completion, while the likelihood of deal completion is lowered by a greater number of favorable post-merger stock recommendations for the target firm. But while positive recommendations for the acquiring firm increase deal completion likelihood, acquirers with favorable post-merger stock recommendations underperform acquiring firms with less favorable post-merger recommendations in the two years after deal completion (or termination). On the other hand, target firms with less favorable recommendations outperform targets with more favorable post-merger recommendations. Together, these studies suggest that analyst coverage and their stock recommendations influence investors' perceptions of acquisitions and of whether the deal will be completed. However, analysts in their recommendations and forecasts are less accurate in assessing the acquiring firm's future performance after the merger.

Further work in this vein by Tehranian, Zhao, and Zhu (2013) suggests that analysts' post-merger coverage decisions might reveal valuable information about a merged firm's future performance. In their study about analyst coverage decisions and performance after a merger, they find that analysts who previously covered the target firm frequently continue to cover the merged firm. In the process, target firm analysts who continue their coverage provide both more accurate earnings forecasts and more optimistic recommendations and growth forecasts for the merged firm (compared with acquirer firm analysts). Importantly, a higher proportion of target firm analysts choosing to continue coverage of the merged firm results is positively associated with greater operating and market performance of the merged firm, suggesting that the target firm analysts' decision to continue coverage of the merged firm may provide a valuable information signal for investors about the actual performance prospects of the merged firm.

Key takeaways. Drawing primarily on institutional theory, corporate strategy researchers provide conclusive evidence that analyst coverage and stock recommendations are indeed important factors that shape a firm's diversification scope and provide important informational cues to investors regarding the prospects for deal completion and success. Specifically, research suggests that analysts generally favor firms with more focused corporate strategies. But this finding reveals an interesting, managerial dilemma. By refocusing and thereby assuming a clear industry identity, managers ease information collection and analysis which results in greater willingness on the part of analysts to provide coverage and more positive evaluations. At the same time, adoption of a uniform corporate strategy comes at the cost of uniqueness, which in strategic management research has been commonly viewed as a source of value creation.

Corporate governance. In both the strategic management and finance literatures, analysts are argued to serve an important monitoring role on behalf of investors (Jensen & Meckling, 1976; Walsh and Seward, 1990). Drawing on principal-agency theory and institutional theory, strategic management research in this vein is thus mostly concerned with the extent to which analysts contribute to greater corporate governance effectiveness.

For instance, Puffer and Weintrop (1991), in examining the link between firm performance and CEO turnover, argue that analyst earnings forecasts, rather than accounting performance, set a board's expectations of the CEO. They find as well that the probability of CEO turnover increases when a firm's reported earnings per share fell short of analysts' forecasts. Further, Wiersema and Zhang (2011) show that analyst stock recommendations affect CEO dismissal. They propose that financial analysts "provide the board with third-party certification of the CEO's ability and performance" (2011: 78), and find that firms with lower

analyst recommendations, analysts' downgrades, and a high percentage of sell recommendations experience a greater probability of CEO dismissal.

In their role as corporate monitors, analysts also assess and evaluate CEO appointments. In their study, Gomulya and Boeker (2014) examine how firms that have had financial restatements use CEO appointments to restore their reputation within the financial markets. Utilizing institutional theory, they propose that because "analysts are legitimate arbiters qualified to assess a firm and its leadership" (Gomulya & Boeker, 2014: 1764) their evaluations can help restore a firm's reputation with investors. They propose and find that, when firms have more extensive financial restatements, the appointment of a CEO with prior CEO experience or turnaround experience results in a mean increase in the analyst earnings forecast from before to after the CEO succession event. Contrary to their hypotheses, they find that when firms have more extensive financial restatements, the appointment of a CEO with a background in finance or accounting results in a mean decrease in the analyst earnings forecast from before to after the CEO succession event. Since corporate misconduct undermines a firm's legitimacy (Suchman, 1995), the appointment of a CEO with prior CEO experience or turnaround experience serves to restore its legitimacy in the eyes of financial analysts.

Research further shows that analysts also evaluate management based on a firm's corporate governance practices. Utilizing data from the *Fortune* survey of America's "Most Admired Companies", Bednar, Love, and Kraatz (2015) find that analysts assess management quality more negatively for firms that adopted poison pills to defend against (unfriendly) takeovers. Moreover, financial performance serves as a moderator in that managerial quality is assessed more negatively if a firm shows strong financial performance. Interestingly, analysts' negative assessments of management quality become less severe as more firms in the industry

adopt poison pills, suggesting that analysts' negative attributions become less severe as this (illegitimate) practice becomes more prevalent.

But while the aforementioned studies largely highlight how analysts increase corporate governance effectiveness, other studies have presented considerable evidence that the ability of analysts to serve as independent monitors of a firm may be comprised by managerial tactics and impression management (e.g., Biehl-Missal, 2011; Cohen, Frazzini & Malloy, 2012; Washburn & Bromiley, 2014; Westphal & Clement, 2008; Westphal & Graebner, 2010). In one of the first studies on the influence behavior of top executives towards analysts, Westphal and Clement (2008) adopt a socio-political perspective on the relations between top executives and analysts and show that executives are likely to engage in greater favor rendering if their firm failed to meet analyst earnings forecasts. This favor rendering is not evenly distributed among the firm's analysts, but more pronounced towards high status (e.g. star) analysts and those employed by large brokerage firms. Importantly, executive favor rendering decreases the likelihood of subsequent analyst downgrades in response to firms' failure to meet analyst forecasts. The findings by Westphal and Clement (2008) further show that if analysts downgrade a firm's stock, executives retaliate by offering fewer favors to these analysts. Such acts of executive retaliation are also effective in decreasing the likelihood of downgrades by other analysts who are aware of such favor losses.

In a follow-up study, Westphal and Graebner (2010) provide further insights into the impression management practices applied by executives in response to relatively negative analyst evaluations. A key finding is that, subsequent to decreases in analyst stock recommendations, the firm's executives increase formal board independence (i.e., the proportion of outside directors) but not actual board control since they appoint board members with whom

they have friendship ties and can exert social influence over. Thus, executives simply engage in verbal impression management about board control. Despite a lack of effect on actual board control, these joint actions positively influence subsequent analyst stock recommendations of the firm. Similarly, Cohen et al. (2012) provide evidence for only seemingly effective governance changes. Findings suggest that executives prefer appointing those analysts to their firms' boards that have previously made highly favorable recommendations for these firms; interestingly, this effect persists even though these analysts' forecasts might have been less accurate in the past.

Washburn and Bromiley (2014) provide further insight into how executives seek to influence analysts. Specifically, they examine how earnings surprises (e.g. missing analyst earnings forecasts) determines the way in and frequency with which executives subsequently interact with analysts in the form of future earnings forecast guidance, issuance of press releases, and conference calls. Drawing on the impression management literature, they find that the likelihood of management earnings forecast guidance decreases while the number of press releases and conference calls with analysts increase for firms that reported earnings either below or above the analyst consensus forecast (so-called earnings surprises). The effectiveness of these managerial impression management techniques, however, is relatively low, with only the number of conference calls being significantly associated with subsequent revisions in analyst earnings forecasts.

Key takeaways. Drawing on agency theory, institutional theory and impression management theory, studies in this domain highlight the important monitoring and legitimizing role of analysts in influencing corporate governance. Evidence on the extent to which analysts function as effective monitors of managers, however, is somewhat mixed. On the one hand, research shows that analysts influence boards in their decision to dismiss CEOs of poorly

performing firms and that they negatively evaluate governance practices that are not in the interests of shareholders (i.e., poison pills). On the other hand, the strategic management literature also reveals that analysts' ability to serve as an independent monitor may be partly compromised by managerial tactics and impression management.

Organization theory. Drawing mostly on a socio-institutional perspective, organization theory scholars are focused on understanding how analysts influence organizational and technological change. Analysts are mainly portrayed as crucial arbiters of change who are reluctant to embrace and accept novelty. Given that subjects such as organizational identity change and technological transformation require a detailed and profound understanding of the firm and its setting, research in this area relies on rich methodological approaches including conceptual work, and in-depth single and comparative case studies.

Tripsas' (2009) in-depth case study of a company ("Linco") that seeks to adopt major, new technology that changes its organizational identity from a digital photography company to a semiconductor company serves as a good illustration of the main features in organizational theory work on analysts. Tripsas' (2009) study is one of the first to highlight the extent to which analysts in their role of legitimizers of corporate behavior may constitute an inertial force in organizational identity and technological change. Specifically, Tripsas' (2009) comprehensive content analysis of analyst reports suggests that analysts who had covered a firm for some time are slow to pick up on and to acknowledge organizational identity change. Importantly, her study also shows that this lack of external legitimacy by analysts makes it increasingly difficult for Linco employees to internalize and act upon the identity shift. Similarly, Benner's (2010) qualitative study on technological adoption in the advent of radical technological change suggests that analysts are biased towards status-quo preserving technological investments. When

studying the transition to digital technology in the photography industry and the transition towards voice-over-IP (VOIP) in the telecommunications industry, analysts are found to be more attentive and positive towards firms that extended and preserved existing technologies than towards firms that more readily responded and adopted the new technologies.

Another exemplary study in this vein of research is the study by Benner and Ranganathan (2012) which shows that negative analyst recommendations prompt firms to lower their investments in new technologies in order to preserve legitimacy with analysts even though the extent of environmental change requires such shifts in technology investments. Those firms that continue or even raise their investments in new technologies despite analysts' negative recommendations announce higher share repurchases in order to compensate for their illegitimate behavior in the eyes of analysts. Additionally, the work by Benner (2007) and Benner and Ranganathan (2013) suggests that analysts' evaluations of firms' strategic investments are dependent on investors' categorization of firms' stock. In their examination of technological change in the cable and telecommunications industries, they find that analysts are more positive in their evaluation of firms categorized by investors as "growth" stocks and that analysts also evaluate these firms' strategic investments more positively compared to firms that are categorized as "income" stocks. Thus, they find that how firms are categorized by investors in terms of value (growth vs. income) influences analysts' assessments and hence their stock recommendations.

Within the organizational theory literature, researchers, however, not only study conformity pressures exerted by investors on analysts but also study to what extent analysts imitate their peers and conform to the analyst consensus earnings forecast (so-called mimetic isomorphism) (DiMaggio & Powell, 1983). One of the first management studies on this issue is

the work by Rao et al. (2001), which suggests that analysts' decisions to initiate firm coverage are strongly influenced by herding behavior. Specifically, they find that the number of recent adoptions is positively associated with further coverage adoptions. Interestingly, however, recent coverage adoption by high-status analysts is not found to incur greater subsequent adoption effects. Since recent adoptions are viewed as a signal for positive expectations about a firm's share price, they find that "herding" analysts were more likely to be overoptimistic about a firm's future earnings. Finally, results suggest that recent adoptions at the time an analyst initiated coverage increases the rate of abandonment of coverage by these "herding" analysts. Similarly, Zhu and Westphal (2011) show that individual analysts tend to fall in line with (overly) positive stock recommendations and earnings forecasts in response to share repurchase plans by firms, despite having private reservations about whether such plans are beneficial to a firm's future performance. Such mimetic behavior of issuing more positive recommendations and forecasts despite personal reservations is argued to result from a systematic tendency of group or community members to underestimate the extent to which others share their reservations (so-called pluralistic ignorance). Frequent communication among analysts is found to be effective in decreasing this misperception bias.

In addition to socio-economic theories of imitation, behavioral theory is also used to examine how analysts are not perfectly rational, but instead are subject to biases that can influence their judgments (Tversky & Kahneman, 1985). Hilary and Menzly (2006), for instance, show that behavioral and cognitive biases (i.e., overconfidence, self-serving attribution) not only compromise the accuracy of analysts' earnings forecasts but also that analysts whose earnings forecast accuracy has been above average in recent quarters make less accurate forecasts in subsequent quarters and deviate much stronger from the consensus forecast. They argue that this

is due to analysts' overconfidence in their own forecasting abilities and a false belief about the superiority of their private information which together results in an over-reliance on private information.

Finally, in understanding how investors perceive analysts' recommendations, organizational theory scholars also focus on the role of social context. Especially analysts' social status has been shown to be an important factor in how investors perceive their evaluations. For example, Boivie, Graffin, and Gentry (2016) investigate how the stock market reacts to changes in analyst recommendation from star versus non-star analysts. Star analysts are those listed on *Institutional Investor's* All America Research Team, an annual ranking by institutional investors. Within the investment community, All-America analysts are considered to be the best among their peers and to make more accurate earnings forecasts and more profitable stock recommendations (Stickel, 1992; 1995). Because they make more accurate forecasts, Boivie et al. (2016) propose and find that investors react more strongly to changes in stock recommendations issued by star analysts than those issued by non-star analysts. In addition, they also propose and find that star analysts have a greater impact than either CEO reputation or firm reputation on the stock market response to changes in analyst recommendations. Thus, they provide evidence that investor perceptions of a firm are influenced by the status of the analyst making the stock recommendation and that an analyst's status carries greater weight than the reputation of the firm or the CEO.

Key takeaways. In summary, research in organization theory has shown that analysts exert significant institutional pressure on firms and can influence the firm's identity and the legitimacy of its strategy. Findings suggest that firms' identity change or technological transformation might in fact be held back by the perceived need to comply with analysts' beliefs

and expectations. Analysts' perception of what is deemed as "appropriate" also influences their evaluation of the firm's performance. However, because analysts operate within a social context that can influence their behavior research finds that analysts are subject to mimetic isomorphism and to behavioral biases in issuing their recommendations.

Competitive strategy. In understanding the role of financial analysts, competitive strategy scholars have examined two major research questions: a) how analysts influence competitive behavior through their coverage and earnings expectations and b) why analysts conform in their evaluations and their earnings forecast accuracy.

An exemplary study addressing the first question is by Gentry and Shen (2013) who find that failure to meet analyst earnings forecasts is associated with research and development expenditure cuts in order to boost short-term performance. The study also proposes that firms that exceeded the analyst earnings forecast may similarly cut R&D expenditures to hedge against further increases in analyst forecasts. Interestingly, however, the study also indicates that high analyst coverage may help contain the agency problem related to R&D investments for firms that fail to meet analyst forecasts as managers are expected to be aware of greater monitoring, and are thus likely to refrain from R&D cuts in fear of being penalized by analysts and investors. In sum, this study shows that analysts, through their coverage and earnings forecasts, might both fuel and constrain the firm's R&D investments.

Similarly, work by Zhang and Gimeno (2010) shows that greater earnings pressure induces managers to focus on increasing current profits by exploiting market power opportunities and tightening production output in order to raise prices, and thus earnings. Specially, the study shows that greater earnings pressure is associated with lower capacity utilization under conditions of a firm's large capacity share, high market concentration, and high capacity shares

by for-profit rivals. Additionally, the study shows that optimizing short-term performance comes at the expense of reduced competitiveness, as it allows rivals to extend their output. In a follow-up study, Zhang and Gimeno (2016) elaborate further on the effect of earnings pressure on firm competitive behavior by exploring its influence on a firm's competitive aggressiveness. In their study of the airline industry, they find that airlines confronted with earnings pressure increase their ticket prices and limit their flight frequency, both of which are interpreted to signal decreased competitive aggressiveness. Together, these studies provide evidence that the analyst consensus earnings forecast can lead to earnings pressures that motivate management to take selective, competitive actions to address the (earnings) gap. Importantly, while these competitive actions (e.g., price increases) effectively increase short-term earnings to meet earnings forecasts, such firm competitive behavior is suggested to eventually come at the expense of a firm's longer-term competitiveness.

In the second major vein of research on analysts in competitive strategy, researchers have also drawn attention to the competitive dynamics between analysts. By introducing key constructs from competitive dynamics to the financial analyst literature, these contributions offer interesting, alternative explanations for why analysts may conform in their behavior and assessments and for why forecast accuracy may vary (across analysts). An exemplary piece in this emerging stream of research is the work by Baum, Bowers, and Mohanram (2015) on mutual forbearance and competition among securities analysts. Drawing on insights from competitive dynamics research that companies that meet and compete in several markets (so called multi-point competition) often agree to divide up and respect their spheres of influence (so-called mutual forbearance), they suggest that multi-point contact among analysts (by co-covering portfolios of companies) makes them engage in mutual forbearance. In particular, Baum et al.

(2015) reason that in the face of multi-point contact, analysts focus and specialize their efforts on stocks within their own sphere of influence, which allows them to provide more accurate earnings forecasts and to release forecasts and recommendations ahead of rival analysts (so-called information leadership) for those stocks relative to stocks within their rival analysts' key domains. Results show that information leadership in earnings forecasts and in recommendations is indeed greater for stocks that fall into analysts' own spheres of influence. Forecast accuracy, however, is not enhanced by analysts' specialization on stocks within their key domain in the face of multi-point contact, suggesting that the potential benefits of specialization that may lead to greater forecast accuracy are overpowered by the negative effects (i.e., weaker effort) that result from reduced competitive pressure. In a different study, Bowers, Greve, Mitsuhashi, and Baum (2014) further show that multi-point contact with other analysts reduces analysts' boldness in earnings estimates, meaning that analysts tend to forebear by deviating less from average earnings' estimates. Moreover, this study teases out the conditions under which multi-point contact among analysts is particularly likely to encourage mutual forbearance: the negative effect of multi-point contact on boldness in earnings' estimates is found to be pronounced given greater competitive parity (proxied by equal access to information following regulatory change and given greater status parity).

Key takeaways. Studies in the domain of competitive strategy are among the few that directly deal with earnings pressure, a phenomenon that has received considerable research attention in finance and accounting. In line with the wider public and political debate on excessive short-termism in capital markets, studies show that pressure to comply with analysts' expectations can change the firm's investment and competitive behavior (Gentry & Shen, 2013; Zhang & Gimeno, 2010, 2016). Scholars have further shown that the use of key constructs from

competitive dynamics theory can enrich our understanding of how rivalry between analysts influences their behavior.

Strategic human capital. Research examining analysts in terms of their human capital has provided significant insight as to what determines how analysts differ in their capability and value to their employers. Drawing on the knowledge-based and capability-based views of the firm, Groysberg and Lee (2008, 2009) explore whether star senior analysts can sustain their performance when switching to another employer. A key finding is that star analysts are likely to experience a multi-year (at least five years) decline in their performance that is particularly pronounced if the new employer has weaker capabilities relative to the star analyst's former employer, and if the star analyst transfers on her/his own (without former team members). In contrast, star analysts switching to firms with higher capabilities and with other team members do not experience declines in their short-term or long-term performance. Overall, the findings highlight the importance of firm-specific capabilities and internal social capital for star analyst performance. A follow-up study by Groysberg and Lee (2009) further shows that star analysts who transfer to a new employer in an exploration role (by covering an industry new to the firm) experience a more severe performance decline than analysts who take on an exploitation role (by covering an industry already covered by the firm). Again, this effect is less pronounced if the star analyst moves with a team rather than alone. At the firm-level, the hiring of star analysts is negatively received by investors, as indicated by the stock price reactions to their appointments. Interestingly, despite the seemingly more positive effect on individual star analyst performance, the hiring of a team of analysts was more severely penalized by investors than the appointment of just a star analyst.

In a more recent study, Groysberg, Polzer, and Elfenbein (2011) explore the effectiveness of research team composition and suggest that the percentage of star analysts on a team has a decreasing marginal benefit on client-rated team effectiveness. Specifically, the study finds that perceived team effectiveness suffers only if a team is composed of more than 65 percent star analysts. Further, the optimal level of star analysts on a team is contingent on the extent of expertise similarity in a team. This study finds that the higher the expertise similarity, the lower the optimal percentage of star analysts on a team (44 percent for high expertise similarity vs. 69 percent for low expertise similarity).

While financial analysts are employed by the research departments of investment banks and brokerage firms, their employers also have other departments that provide professional services to the firms that are covered by the research department. This conflicting relationship is examined by Hayward and Boeker (1998) who find that analysts issue more positive stock recommendations for firms that have investment banking relationships with their employer. Findings suggest that the size and timing of the deal which the investment banking department is about to complete with the client lead to more favorable recommendations by the investment bank's analysts relative to analysts without this employment tie. In contrast, individual analysts' reputation and their research department's reputation are associated with lower ratings, suggesting that more prestigious analysts working in more prestigious research departments may offer more independent and objective advice.

Key takeaways. In summary, research examining the value of analysts to their employers in terms of human capital finds that their capabilities vary greatly and that highly capable or star analysts drive value for the firms they work for. However, when these star analysts switch employers, their value diminishes to their new employer especially when moving to a lower

quality firm, when they transfer without their research team of associates, or when they are assigned to cover firms/industries that they are not familiar with. Overall, the findings highlight the importance of firm-specific capabilities and internal social capital for star analyst performance. The research also highlights the conflict of interest that analysts have as a result of their employers' client relationships.

Critical Issues Across the Five Research Domains

As evidenced by our review of prior literature, analysts are an important constituent in the financial markets that critically influence an array of strategic decisions, as well as outcomes. Consequently, we find that the importance of analysts is recognized in major research domains in strategic management (i.e., Corporate Strategy, Corporate Governance, Organization Theory, Competitive Strategy, Strategic Human Capital). However, our state of knowledge is fragmented in that there is a lack of integration across the research domains.⁶ Further, even within the five research domains, attention is uneven and thus has not allowed for building an integrative model of the relationships of interest between analysts, firms, and investors. Thus, knowledge gained on one specific topic within a research domain (e.g. analysts' influence on CEO dismissal) is not applied or referenced when studying a different topic within the same domain (e.g. analysts' influence on CEO appointments or CEO compensation). Collectively, we see four major issues that cut across all the five domains. These issues relate to the scope of analysis, the scope of theoretical applications, and the extant data use and analysis. We outline these issues next.

Domain-spanning issue 1: Under-coverage of relevant actors. While the relationship between analysts and the firm's executive management has received considerable research attention by strategic management scholars, relatively little attention has been directed towards

the interplay of analysts and investors that constitutes the key relationship of interest for finance and accounting scholars (e.g., Krishnan & Booker, 2002; Womack, 1996). Finance and accounting scholars have mainly focused on the informational value provided by analysts to investors and analysts' stock-picking abilities. From a strategic management perspective, many intriguing and unresolved issues remain concerning the mutual influence between analysts and investors. For example, drawing on social status theory, prior studies have argued and find that there is a remarkable difference in the perceived quality and status of analysts. Star analysts are known to have greater influence on investors, are more prone to CEO favor-rendering, and more readily accept organizational change (e.g., Boivie et al. 2016; Ioannou & Serafeim, 2015; Westphal & Clement, 2008).

While acknowledging social status differences among analysts, prior work has failed to do so in regards to investors. Against the backdrop of social status theory, prior findings on the importance of analyst status, and empirical findings in corporate governance research on the relevance of ownership (e.g., Boyd & Solarino, 2016), it seems warranted to investigate more closely how the composition and identity of a firm's ownership structure may cushion or amplify the effects of analyst coverage abandonment, earnings forecast accuracy or stock recommendations. Specifically, status and reputation theories suggest that stock ownership by high status investors can serve as an indicator of a firm's reputation and infuse confidence regarding the robustness of a firm's future performance – despite potentially contradictory assessments and forecasts by analysts. The three billion dollar investment of Warren Buffet, chairman of Berkshire Hathaway, in General Electric during the 2008 financial crisis serves as a practical illustration of this effect: Analysts commented that Buffett's endorsement will mean as

much or even more than the liquidity inflow.⁷ *Thus, we encourage research that examines how differences in ownership identity and composition influence analyst perceptions and evaluations.*

Additionally, we believe that greater understanding of the influence of analysts on firms and investors can be gained by investigating the interactions between analysts and the media. As indicated in our depiction of the social context surrounding analysts (Figure 1), the media plays an important role in disseminating analysts' views. Incorporating the role and influence of the media seems highly appropriate given our knowledge of how the media affects corporate strategy and governance, as well as CEO evaluation (e.g., Deephouse, 2000; Hayward, Rindova, & Pollock, 2004; Bednar, Boivie & Prince, 2013).

Also from the perspective of the attention-based view of the firm (Ocasio, 1997), a closer study of the interplay between analysts and the media would prove insightful. Both the media and analysts compete for the attention of investors and managers, yet they may hold different perceptions of company practices, such as the extent of corporate social responsibility. Drawing on the work of Bednar et al. (2015), we can expect that how strategic decisions are evaluated may be contingent on how these constituents influence each other. The media can influence analysts, investors, and regulatory bodies in their evaluation of strategic decisions, such as the backdating of stock options (Wiersema & Zhang, 2011). Similarly, firm actions can attract and shape media attention. Thus, scholars need to take a more expansive view of how the firm's various constituents can influence each other in determining how strategic decisions are evaluated and the causal attribution that these various actors are likely to make.

Thus, we see value in addressing research questions such as how the extent and nature (positive/negative) of media coverage affect analyst decisions to initiate or terminate coverage

and their stock recommendations, and how analyst and media coverage jointly affect investor attention and reaction.

Finally, the influence of regulatory bodies has been ignored in research to date, in spite of the fact that these bodies have been a major institutional force in the financial markets. The corporate scandals (e.g. Enron, WorldCom) and subprime mortgage crisis that undermined investor confidence in the financial markets have led to increased regulatory intervention. While it is fairly standard in the accounting and finance literature to control for major regulatory changes (i.e., Regulation Fair Disclosure⁸, SOX), few strategic management studies have accounted for how regulation can influence strategic decisions (e.g., Baum et al., 2015; Wiersema & Zhang, 2011). Yet, consideration of the influence of regulatory bodies is essential when examining the nature of the interactions between the firm's management and analysts as well as analysts' evaluations of a firm's future prospects. *Thus, we encourage research that addresses how regulatory changes influence the nature of analyst interactions with management, analyst coverage, as well as the accuracy and bias of their stock recommendations. These contributions could not only hold important theoretical and managerial implications but also wider public policy implications.*

Domain-spanning issue 2: Scope and depth of applied theories. Within the literature, analysts are perceived as either rational, independent information intermediaries that provide an important monitoring function in the financial markets or alternatively as actors subject to psychological biases and influenced by social context. Given the fact that analysts operate as actors within a social network, and are influenced by other actors, we believe that the theoretical approaches used to study analysts should reflect this. We thus advocate greater use of perspectives such as stakeholder theory (e.g., Freeman, 1984) or network theory (e.g., Borgatti,

Mehra, Brass, & Labianca, 2009; Moliterno & Mahony, 2011) that are powerful in multi-actor and multi-level settings. For example, social network theory allows for closer representation of the fact that analysts operate in what has been labeled systems of nested networks (Harary & Batell, 1981). The individual star analyst does not work alone, but with a research team (composed of junior and senior analysts, as well as research associates) that resides within the research department of an investment bank or brokerage firm. The individual star analyst and his/her research team competes with other research teams in providing advice to clients and thus is also part of an interorganizational network of analysts that functions in a wider social network (i.e., the financial markets). Analysts are thus working within a nested structure. As Moliterno and Mahoney (2011) point out, much can be gained by examining how relationships and structures at one level of the system can change and influence both lower and higher levels of the network. Social network theory may thus provide for a theoretical perspective to reflect the multi-level systems within which analysts function, and thus to better understand the consequences of this nested system on analyst behavior. Importantly, the language of social network theorists seems compatible with that of extant research on analysts, considering that status or centrality are also common characteristics to describe an actor's position in a social network. Thus, stakeholder theory and social network theory may provide for useful theoretical perspectives to reflect the multi-actor, multi-level context in which analysts operate and the competing demands that they face.

Our review of the literature also indicates that paradox theory (Lewis, 2000; see Schad, Lewis, Raisch, & Smith, 2016 for a review) might provide a useful theoretical perspective to accommodate the fact that analysts are seen as both rational as well as irrational actors whose behavior often seems to cause organizational tensions and to involve managerial trade-offs.⁹ For

example, earnings pressure results in trade-offs regarding short-term versus long-term investments (e.g., Boivie et al. 2016) and analyst coverage and analysts' specialization by industry appear to create tensions for balancing incremental versus radical technological and organizational transformations (e.g., Benner, 2007; Gentry & Shen, 2013; Tripsas, 2009).

While institutional theory also highlights divergent pressures from different stakeholders (Greenwood, Raynard, Kodeih, Micelotta, & Lounsbury, 2011), paradox theory offers another lens and, as noted by Smith and Tracey (2016: 456), may complement institutional theory to generate “richer and more diverse theorizing about competing demands and environmental complexity.” Application of paradox theory appears viable and useful because it views competing demands as inherent in organizations, which emerge through relational dynamics as a result of dialogue, practices and social interactions, such as occurs with analysts (Lewis, 2000). According to paradox theory, competing demands persist over time, are perceived differently by individuals and cannot be resolved, “but if effectively engaged can foster creativity and sustainability” (Smith & Tracey, 2016: 457). Thus, the application of paradox theory paired with a more inductive research approach could help scholars better understand how managers experience and respond to these tensions. *Thus, we recommend that researchers utilize a broader repertoire of theories such as stakeholder theory, social network theory or paradox theory to more fully understand how managers perceive and respond to competing demands imposed by analysts as well as to align theorizing more closely with the multi-actor, multi-level empirical context in which analysts operate.*

Domain-spanning issue 3: Availability of data sources. Analysts draw on quarterly and annual reports, firms' 10-K filings, and investor relations newsletters to build their financial models and develop their recommendations. Analysts' recommendations and earnings forecasts,

however, are not only the product of desk research. Analysts also speak regularly with a firm's executives through quarterly conference calls¹⁰ as well as in private communication¹¹ (Brown, Call, Clement, and Sharp, 2015). These meetings and calls are important occasions for analysts and provide them with an opportunity to ask executives direct questions about their future plans and the firm's future prospects.¹² Difficult issues are often raised in a conference call that can lead analysts to re-evaluate a firm's future prospects as well as motivate executives to take actions. In accounting research, awareness of the importance of the analyst conference calls and the impact of the way they communicate with executives has led to significant attention by scholars to so-called "disclosure research" (e.g., Henry & Leone, 2015; Mayew & Venkatachalam, 2012). Researchers in accounting, for example, find that the "tone of financial narrative" conveyed in conference calls influences analyst recommendations and investor response to earnings announcements (Henry & Leone, 2016). In addition, finance research finds that the affective states exhibited by managers during their scrutiny by analysts during conference calls influences analyst stock recommendations (Mayew & Venkatachalam, 2012). Thus, the qualitative aspects of verbal communication revealed in conference calls provide additional information beyond that contained in the firm's earnings press release.

The transcripts and audio files of quarterly conference calls provides management researchers with information that can be used not only to better understand how analysts arrive at their recommendation, but can also be used to assess important attributes about a firm and its management. For example, a recent study by Lee, Hwang, and Chen (2017) utilizes conference call data to measure overconfidence in founder versus professional CEOs and finds that founder CEOs use more optimistic language. While a study by Brochet, Loumiti, and Serafeim (2015) finds that the use of language in conference calls can reveal managerial myopia. Thus,

conference calls reveal important aspects of management disclosure in terms of the use of certain language, as well as the tone. In addition, considering the topics discussed, as well as the amount of time spent on them, may lend further insight. Furthermore, when a quarterly conference call does not go well, it is not unusual for management to hold follow-up conference calls to appease analyst concerns regarding the direction and performance of the firm. Since analysts believe that conference calls “enable them to make judgments about the breadth and quality of the top management team” (Chugh & Meador, 1984: 43), the content of these conversations obviously may influence their evaluations of the firm. *Thus, analysis of the frequency and content of executives’ communication with analysts deserves research attention from strategic management scholars in order to better understand attributions about the firm and its executives, the nature of the relationship between the CEO and analysts, and the basis for analyst evaluations.*

Domain-spanning issue 4: Data analysis. Research on analysts also must account for the fact that the relationships between analysts and executives are characterized by reciprocity. This raises two major issues: endogeneity and reverse causality. Endogeneity occurs when the outcome of interest (e.g. dependent variable) is also influenced by factors that simultaneously affect the explanatory and dependent variables. In the case of analysts, the effects of earnings forecasts and stock recommendations on firm outcomes such as choice of strategy or executive succession are likely to be driven by the same (unobservable) factors. In our review of management research on analysts, we find that scholars rarely address the issue of endogeneity and few studies methodologically account for its effects. Yet without accounting for endogeneity, researchers may conclude that analysts have an influence when in fact they don’t or they might report a positive/negative relationship when in fact the opposite may be true. The papers by Feldman (2016), HERNBERGER (2016), and Wiersema and Zhang (2011) provide good examples of

the approach that more scholars in management need to adopt to assess the influence of analysts on firms correctly.

Additionally, our review indicates that the relationship between firms and analysts can work both ways in that firm decisions and performance influence analysts in their assessments of a firm's future prospects, but also that analyst recommendations/earnings forecasts and even the extent of coverage influence management and the board in its decision-making. Given that the relationship is reciprocal, it can be difficult to disentangle causality. The use of longer time horizons and accounting for lags between analysts' earnings and recommendations and firm decisions, and vice-versa, may help shed light on the direction of causality.

NOVEL RESEARCH COVERAGE OPPORTUNITIES

Our review explicates the empirically-validated knowledge base that we hold on analysts across different domains of strategic management research today. Though it is clearly evident that many valuable insights have been generated on the relationship between analysts and a firm's executives, we believe that research on analysts is still far from maturity and, in fact, holds strong promise for future growth. In the following, we put forward recommendations for future research in each of the five domains of strategic management research: Corporate Strategy, Corporate Governance, Organization Theory, Competitive Strategy, and Strategic Human Capital. Moreover, we would like to draw the attention of scholars in Behavioral Strategy, Global Strategy and Business Ethics/CSR to the importance of analysts. Therefore, we also include recommendations for these domains.

Corporate Strategy Research Opportunities

As evidenced by our review, work on analysts in corporate strategy research is more developed than in other research domains. Still, many of the initial findings require further empirical validation, and a host of other issues seem worth exploring. First and foremost, corporate strategy scholars – especially those working on the determinants and outcomes of acquisitions/divestitures/alliances and diversification – should more strongly acknowledge the pivotal role of analysts¹³. Since analysts continually update their reports, strategic decisions by a firm can lead to revisions of analyst earnings forecasts and stock recommendations. Thus, analysts act as both an antecedent factor that influences managers to make portfolio decisions, and may also influence the performance outcomes of these decisions through their reassessments of the firm. The extensive research on the determinants and consequences of firm divestiture, for example, has omitted analysts as a factor, despite studies by Zuckerman (1999) and Nicolai et al. (2010) that provide evidence that analyst coverage and their stock recommendations influence divestiture likelihood and intensity.

Since analysts are among the first to comment on strategic decisions such as mergers and acquisitions or divestitures, their evaluations are likely to influence not only executives' motivation for undertaking these decisions but also how investors will respond. Hence, incorporating the role of analysts may shed light on the consequences of acquisitions and divestitures as indicated, for example, by the works of Feldman (2016) and Tehranian et al. (2013). In corporate strategy research, we thus see value in studies that address the following exemplary research questions:

Research Question 1: How are analyst stock recommendations and earnings forecasts influenced by major acquisitions or divestiture?

Research Question: 2: How does earnings pressure influence firm divestiture intensity and timing?

Research Question 3: How do changes in analyst coverage and recommendations influence investor reaction to acquisition/divestiture announcements?

Research Question 4: How do financial analysts interpret and assign value to strategic alliances?

Corporate Governance Research Opportunities

While corporate governance has received much attention within strategy, research has predominantly focused on internal governance mechanisms such as the formal structure of the board, executive compensation, and the relative power of the CEO versus the board (see Hambrick, Werder & Zajac, 2008 for a review). Our review highlights that firms' corporate governance practices are incorporated into analysts' assessments (Bednar et al., 2015), and that executives use favor rendering as a way to influence analysts (Westphal & Clement, 2008). Because a key determinant of analyst recommendations is their evaluation of a firm's executives, analysts also influence boards in their monitoring role (Wiersema & Zhang, 2011) and influence how investors perceive a newly appointed CEO after financial misconduct (Gomulya & Boeker, 2014). Given the importance of this external constituent in providing investors and boards with their assessment of the firm and its management, we propose examining the governance role of analysts by the following research questions:

Research Question 5: To what extent do CEO attributes such as status or celebrity influence analyst' perceptions of the firm's future earnings prospects?

Research Question 6: How do analysts respond to the appointment of new CEOs after executive dismissal?

Research Question 7: Are CEOs with greater hubris or overconfidence less likely to feel pressured to meet analyst' earnings expectations?

Organization Theory Research Opportunities

As indicated in our review of prior work in organization theory on analysts, several studies have investigated analysts' influence on organizational identity (e.g., Benner, 2007; Tripsas, 2009). Because analysts rely on categorization to evaluate firms, identity changes are found to be complicated and slowed down by analysts (e.g., Benner, 2010; Tripsas, 2009). Yet

industries can undergo significant technological and economic disruptions that require firms to adapt their strategies. While identity changes might be particularly difficult for “first movers”, this might not be the case as more firms follow. As a new institutional logic or dominant perception of firms’ organizational identity might arise due to “bandwagon effects”, firms may be pressured by analysts to change their identity in accordance with this new logic and perceptions. Hence, it seems worthwhile to explore whether and how analysts change their categorization schemas in order to reflect the evolution of an industry’s technological and competitive landscape.

Additionally, prior work has widely assumed that due to coverage mismatch concerns, firms strive to adhere to the industry categorizations held by analysts. However, firms may also purposely try to change their industry classification in order to be evaluated as having greater growth opportunities, and hence receive higher valuation multiples. For instance, many companies (e.g., Nestle, Unilever) have tried to re-position themselves through changes in their strategy and mission statements. Rather than presenting itself as a food company, for example Nestle claims to be “the world’s leading nutrition, health and wellness company”. Similarly, major technology companies (e.g., Royal Philips) have reformulated their identity in terms of being focused on healthcare, and consumer lifestyle. While prior research has attributed analyst coverage mismatch as a driving factor in the positioning of the firm’s identity, these illustrative examples show that industry parameters (i.e., industry value multiples) may also play a major role. We recommend that organization theory research on analysts could examine the following:

Research Question 8: To what extent do major trends (e.g., digitization, health consciousness) or shocks influence analysts to adopt new industry categorizations and does the media influence analysts in their categorizations?

Research Question 9: What motivates managers to try to redefine their companies’ identities within the financial markets?

Competitive Strategy Research Opportunities

Studies on how analysts influence competitive dynamics have generated interesting insights into how pressure to meet analysts' earnings expectations can change a firm's investment and competitive behavior (Gentry & Shen, 2013; Zhang & Gimeno, 2010, 2016). Building on these important insights, we recommend that researchers' focus on how earnings pressure and analysts' recommendations may influence executives' time horizons, which are a critical factor in determining the firm's resource allocations and investments (see Reilly, Souder & Ranucci, 2016 for a recent review on the topic). The excessive focus that executives place on short-term earnings at the expense of long-term value creation has been identified as a major concern, with more than 60% of senior executives indicating that pressure to deliver short-term financial performance has increased in recent years (McKinsey Global Institute, 2017). While capital market pressures for shareholder wealth maximization have been blamed for the focus on short-term performance, we lack an understanding of the role that analysts may play in influencing executives' investment horizons. Despite evidence that the gap between the analyst consensus earnings forecast and potential actual earnings can create "earnings pressure" on managers to engage in myopic behavior to meet earnings expectations (Zhang & Gimeno, 2010, 2016), we know little of how analysts can influence managers' time horizons when it comes to long-term strategic investments. Yet in the evaluation of a firm's strategic decisions, analysts clearly take into account the time horizon of these investments and their impact on the firm's future competitive position and earnings. For example, the aggressive expansion of Amazon.com in building its logistics infrastructure (first warehouses and now airplane fleets) over the past 15 years has adversely impacted its earnings, yet analysts perceive the firm's investments as strategic, and they continue to be bullish about its future. As a result, Amazon.com trades at one

of the highest price-earnings multiples in the Dow Jones index. Analysts thus play a significant role in providing management with the discretion to make large-scale investments without concern as to the impact that this may have on short-term earnings. On the other hand, analysts can also have an adverse impact on executives' time horizons, as they have done in the pharmaceutical industry. Now facing the consequences of patent cliffs and poor R&D pipeline productivity, analysts have contributed to the pressures as indicated by Daniel Vasella, former CEO and chairman of Novartis, who refers to the "tyranny of the quarterly earnings" (Vasella & Leaf, 2002). Thus, the perspective that executives adopt in their investment decisions is influenced by how analysts evaluate the strategic and competitive consequences of these investments. We propose that research could advance our understanding of competitive strategy by addressing the following questions:

Research Question 10: How does earnings pressure moderate the relationship between CEO regulatory focus (i.e., promotion, prevention focus) and a firm's investments?

Research Question 11: What are the market conditions and firm characteristics that make analysts more tolerant of firms that fail to meet their earnings forecasts?

Research Question 12: How does CEO temporal focus (i.e., attention given to past, present, future) moderate the relationship between earnings pressures and firm's long-term investments?

Strategic Human Capital Research Opportunities

Thus far, research has used analysts to study issues such as individual and group knowledge transfer or group effectiveness given differential social status of group members (e.g., Groysberg & Lee, 2008; Groysberg et al., 2011; Groysberg & Nanda, 2008). The performance and impact of analysts, however, could also be explored from the perspective of their human and social capital. Analysts' prior work experience in terms of their familiarity or knowledge of the industry and firms that they provide coverage for, serve as proxies for their knowledge and skills which can be used to identify both general and specific human capital. Past experience not only

provides human capital benefits manifested in current capabilities, but also gives analysts access via social ties to valuable resources (e.g. information, knowledge, connections). Social capital lies in the relationships analysts have developed with others (e.g. investor clients, firm management). Together the benefits of past experience – human capital and social resources – convey quality and may influence the accuracy of analyst forecasts, as well as how their recommendations are received by investors and the firm. Furthermore, the ability of analysts to serve a legitimizing role in evaluating a firm’s executives and strategy is also likely to be a function of their human and social capital. In addition to examining analysts in terms of their human and social capital, attributes of their employers are also an important factor to consider. Finally, regulatory bodies and financial exchanges undoubtedly have an impact on analysts and their employers. Thus, we propose that research addressing the following questions could advance our understanding of strategic human capital:

Research Question 13: Do differences in analysts’ human and social capital as well as their status influence the impact that their recommendations and earnings forecasts have on firms and investors?

Research Question 14: Does employer prestige influence the impact of an analyst’s recommendations on firms and investors?

Research Question 15: How do regulatory changes influence the extent of analyst coverage and the impact of their recommendations on firms and investors?

Global Strategy Research Opportunities

As indicated in our review, analysts’ influence on corporate strategy in terms of product diversification is fairly developed. Thus far, scholars in international business strategy, however, have not picked up on these insights. In fact, prior research on the relationship between international diversification and a firm’s market valuation has failed to acknowledge the role that analysts may play (see Hitt, Tihanyi, Miller, & Connelly, 2006 for a review). This omission is troublesome as the underlying logic for a (product) diversification discount seems to apply

equally to the issue of a firm's geographical diversification. For example, a firm that is geographically diversified is more difficult to evaluate due to issues such as the geographic dispersion of the firm's value chain, the limited information as to the financial details of their geographic operations, as well tax complexities, political risks and currency fluctuations. As a result, analysts face greater information asymmetries and uncertainty in assessing the impact of the firm's international diversification on its future earnings prospects. The increased difficulty of assessing geographic diversification is thus likely to result in a diversification discount. Extant research on the performance outcomes of geographical diversification, however, has focused on the economic benefits of expanding the firm's geographic scope while acknowledging only costs due to the liability of foreignness, and the costs of coordinating the firm's activities (e.g., Hitt, Hoskisson, and Kim, 1997; Hymer, 1976; Tallman and Li, 1996).

Another insight emerging from our literature review is the fact that virtually all research conducted has focused on the United States (US). While publicly held companies with diverse stock ownership dominate the US and Europe, family controlled business groups (e.g. Chaebols) are highly prevalent in other parts of the world. Business groups, especially from emerging economies, have received increasing research attention in both the corporate and international business strategy literatures (e.g., Yiu, Lau, & Bruton, 2007). Studies in this vein have brought to light an interesting difference in respect to the performance implications of product diversification. While studies based on US or European firms find evidence for a diversification discount (e.g., Palich, Cardinal, & Miller, 2000), this finding is not applicable to Asian firms (e.g., China, Indonesia, South Korea) where researchers report a diversification premium (e.g., Khanna & Palepu, 2000; Yiu, Bruton, & Lu, 2005). This difference has led to an institution-based theory of corporate diversification (Khanna & Palepu, 2000; Wan & Hoskisson, 2003). We

believe there is a potential to enhance our understanding of global strategy by incorporating the role of financial analysts via the following suggested research questions:

Research Question 16: Does a firm's international diversification influence analyst coverage and stock recommendations?

Research Question 17: To what extent does analyst coverage moderate the relationship between international diversification and firm market performance?

Research Question 18: What is the role and influence of financial analysts in countries with predominantly family controlled ownership of publicly listed firms?

Behavioral Strategy Research Opportunities

According to the behavioral theory of the firm (BTOF), performance is not perceived in absolute terms, but in relation to a meaningful aspiration point. Within behavioral strategy research, the focus on a performance gap as a motivation for strategic decisions has principally relied on historical (a firm's past performance) and social (performance of peer firms) aspirational levels of performance (e.g., Audia & Greve, 2006, Bromiley & Harris, 2014). These aspirational levels, however, may not be the most relevant given financial market pressures to maximize shareholder wealth. We know from prior research that "because executives believe that hitting earnings benchmarks builds credibility with the market", the analyst consensus earnings forecast represents an important performance benchmark for management (Graham et al., 2005: 5). We propose that adopting the analyst consensus earnings forecast as an "aspirational level" of performance is likely to prove insightful in understanding strategic decision-making. This performance benchmark, unlike the firm's historical performance or peer performance, is forward looking and one that investors and executives focus on. Both of these attributes make this a more meaningful metric by which executives assess their performance. Using the performance gap between the analyst consensus earnings forecast and the firm's potential earnings, what is called "earnings pressure", allows us also to examine what executives are doing in order not to miss their performance aspiration levels. In particular, future research might

illuminate how the analyst consensus earnings forecast as an “aspiration level” of performance can influence decisions such as R&D expenditures, downsizing or lay-offs, and other “real” actions that enable the firm to meet these performance expectations. This would be a significant improvement to current research in two ways. First, it enables the use of an earnings performance gap that is forward looking, in contrast to ex-post studies that examine what executives do after having missed their performance expectations. Second, it provides a performance metric that executives are acutely sensitive to, given the impact that missing this benchmark has on the firm’s stock price (Kinney et al., 2002; Roychowdhury, 2006). We think there is great promise in utilizing a behavioral theory perspective to examine analysts influence by addressing the following exemplary research questions:

Research Question 19: How does failing to meet the analyst consensus earnings forecast influence firm investment behavior over and above social and historical performance shortfalls?

Research Question 20: Does failure to meet the analyst consensus earnings forecast moderate the relationship between CEO regulatory focus and firm acquisition/divestiture intensity?

Business Ethics/ Corporate Social Research Opportunities

Analysts may be incentivized to make optimistic earnings forecasts and stock recommendations in order to have access to executives, as well as to help their employers attract investment banking clients (Hayward & Boeker, 1998; Hirsch & Pozner, 2005). As a result of these inherent conflicts of interest, the independence and accuracy of analysts’ stock recommendations may be compromised. Cases of overly optimistic stock recommendations by analysts, for example, have prompted strong critiques (Jegadeesh, Kim, Krusche, & Lee 2004; Malmendier & Shanthikumar 2007).¹⁴

However, despite these inherent conflicts of interest, analysts also serve as an important external monitor. A study by Dyck, Morse and Zingales (2010) finds that analysts, and not

auditors or regulators, play the most prominent role in detecting corporate fraud. Analysts may also influence media attention and investor response to corporate misconduct by drawing attention to the performance ramifications of such actions.

Greater attention to analysts may also help resolve some of the equivocality in research on the relationship between firm CSR activity and financial performance. Researchers might use an impression management perspective to investigate to what extent CSR investments or CSR ratings influence analysts' evaluations of a firm. A study by Luo, Wang, Raithel, and Zheng (2015) finds, for instance, that analysts evaluate and incorporate a firm's social performance in their assessment of the firm. Thus, analysts may provide an "informational pathway connecting social performance to firm stock return" (Luo et al., 2015:124). We encourage research that advances our understanding of corporate misconduct and corporate social responsibility by addressing the following proposed questions:

Research Question 21: Do high CSR ratings attenuate analyst earnings pressures?

Research Question 22: How does corporate misconduct influence coverage initiation and termination?

Research Question 23: How does analyst coverage influence investor perceptions (i.e., short-term stock price reaction) of corporate misconduct?

CONCLUSION

As outlined in our review and directions for future research, there are many reasons to dedicate greater attention to the role of analysts in regards to strategic management. In addition, we believe that future work on analysts has great potential to enrich not only the academic discourse in different domains of strategic management research, but also to contribute to ongoing debates in public policy and economics as to the actual value add of analysts as a major financial market constituent. Thus, there is both an important prescriptive and normative dimension to these research efforts. Consequently, we hope that our review motivates strategic

management scholars to take up “research coverage” on analysts and their relational ties with managers, investors, their employers, the media and regulators.

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FOOTNOTES

¹ Next to institutional investors, directors rate financial analysts as the second most important group influencing company boards (PricewaterhouseCoopers, 2008), while executives rate analysts' recommendations and forecasts as one of the strongest forces impacting their firms' stock prices (Graham, Harvey, & Rajgopal, 2005).

² We focus on sell-side analysts. There are also buy-side analysts, who provide internal, more focused research which is not disseminated outside of their employer because the work is designated to support the bank's or fund's own portfolio and asset management divisions.

³ We chose 1976 as our starting point since this is the year that Jensen's and Meckling's seminal work was published.

⁴ A journal's relevance was judged by its inclusion in the *Financial Times 50* journal ranking and its impact factor ranking.

⁵ After our initial coding and content analysis had revealed that analysts' influence has been found to affect a wide scope of organizational and individual behaviors and outcomes and to cut across different domains in management, we checked for the robustness of our initial search strategy. Specifically, we went back and also searched major field journals included in the *FT 50* journal list (i.e., *Entrepreneurship Theory & Practice*, *Journal of Business Ethics*, *Journal of Business Venturing*). However, no other relevant articles could be identified based on these additional searches.

⁶ Interestingly, this aspect can also be seen in our review. Very few authors have in fact contributed to more than one research area.

⁷ "He's a smart guy and he wouldn't get involved if he doesn't think it's a great company," said analyst Mike McGarr of Becker Capital in Portland, Ore. (USA Today, 10/1/2008).

⁸ Regulation Fair Disclosure issued by the U.S. Securities and Exchange Commission (SEC) in August 2000 mandates that all publicly traded companies must disclose material information to all investors at the same time. The regulation sought to stamp out selective disclosure, in which some investors and analysts received relevant information before others.

⁹ Paradoxes are "persistent contradictions between interdependent elements" (Schad et al., 2016: 6) and paradox theory has been characterized by depicting "tensions as inherent within organizational systems and seeks approaches to embrace their persistent nature" (Smith & Tracey, 2016).

¹⁰ Conference calls are regularly scheduled presentations, usually quarterly, made by a firm's executives to financial analysts and investors where the firm's executives provide information about the company and analysts have the opportunity to raise questions.

¹¹ According to Brown et al., (2015), over half of the analysts they surveyed report that they have direct contact with the CEO or CFO five or more times a year.

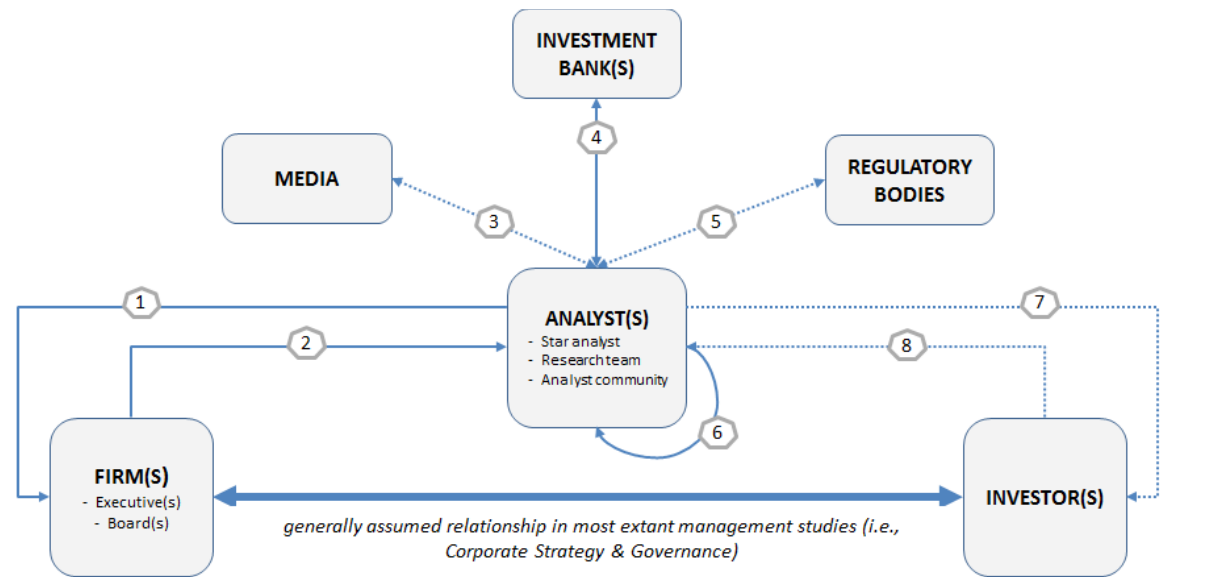
¹² Transcripts and audio recordings of conference calls are provided by widely available commercial databases such as Thompson One, and are also freely accessible through the investor relations sections on firms' websites.

¹³ Especially in the alliance literature, there is little consideration of the role of analysts with just one single study that incorporates analysts in its theorizing and empirical design (Jensen, 2004).

¹⁴ As lamented earlier by Hirsch and Pozner (2005), analysts seem to be purposefully overoptimistic by offering 92 buy recommendations for every sell recommendation.

FIGURE 1

Organizing framework for understanding the importance of analyst research



Legend:

———— Key relationships studied in management research

----- Largely unstudied relationships in management research

① ② ④ ⑥ Focus of analyst research in management literature

④ ⑤ Focus of public/political debate about analysts

⑤ ⑦ ⑧ Focus of analyst research in finance and accounting literatures

Table 1
Overview of Analyst Research in Management Literature

Research Domain	Linkages studied ^a	Illustrative research question(s)	Applied Theories	Main empirical relationships studied (sign of empirical finding)	Exemplary Studies Author (Year, Journal)
Corporate Strategy	1	<i>How do analysts influence firm diversification?</i>	Institutional Theory	Analyst coverage – firm refocusing (+)	Zuckerman (2000, ASQ)
	1/7	<i>How do analysts influence M&A completion and outcomes?</i>	Status Theory	Analyst recommendations – deal completion (+)/ post-merger performance (+) Diff. in acq.-target status – investor response (+)	Becher et al., (2015, MS) Shen et al. (2014; SMJ)
	2	<i>How does firm diversification influence analyst coverage?</i>	Institutional Theory	Firm diversification – analyst coverage (-)	Litov et al. (2012, MS) Zenger (2013, HBR)
	2	<i>How do firm spin-offs influence analyst coverage/forecast accuracy?</i>	Institutional Theory	Firm spin-offs – analyst coverage/accuracy (+ & -)	Feldman (2015, SMJ); Feldman et al. (2014, SMJ)
Corporate Governance	1	<i>Do analysts influence CEO succession?</i>	Agency Theory	Analyst earnings forecasts – CEO turnover (+) Analyst recommendations – CEO Dismissal (+)	Puffer & Weintrop (1991, ASQ) Wiersema & Zhang (2011, SMJ)
	1	<i>Do analysts evaluate CEO appointments?</i>	Institutional Theory	CEO appointments after financial restatements – analysts' earnings forecasts (+)	Gomulya & Boeker (2014, AMJ)
	2	<i>Do analysts respond to corporate governance practices?</i>	Institutional Theory	Adoption of poison pills – analyst recommendations (-)	Bednar et al. (2015, AMJ)
	2	<i>Do managers influence analysts?</i>	Impression management theory	Missed earnings forecasts – favor rendering (+) Missed earnings forecasts – frequency of management interaction with analysts (+)	Westphal & Clement (2008, AMJ) Washburn & Bromiley (2014, AMJ)
Organization Theory	1	<i>How do analysts influence firm identity/technological change?</i>	Institutional Theory	Negative analyst recommendations – strategic investments (-)/share repurchases (+)	Benner & Ranaganathan (2012, AMJ)
	6	<i>Do analysts imitate other analysts?</i>	Institutional Theory	High status analyst coverage – other analysts' coverage (+)	Rao, et al. (2001, ASQ)
	6	<i>Do behavioral biases influence analysts?</i>	Behavioral Theory	Analyst past accuracy – analyst future earnings accuracy (-)	Hilary & Menzly (2006, MS)
	7	<i>Does social context influence investor response to analysts?</i>	Social status Theory	High status analyst recommendations – investors (+)	Boivie, et al., (2016, AMJ)
Competitive Strategy	1	<i>Do analysts influence firm R&D expenditures?</i>	Agency Theory	Missed analyst earnings forecasts – R&D expenditures (-)	Gentry & Shen (2013, SMJ)
	1	<i>Do analysts influence competitive</i>	Agency/Behavioral	Earnings pressure – prices (+); flight frequency (-)	Zhang & Gimeno (2016,

		<i>aggressiveness?</i>	Theory		OS)
	6	<i>Are analysts influenced by competitive dynamics between analysts?</i>	Competitive dynamics Theory	Analyst overlap in firm coverage – competitive intensity between analysts (-)	Baum et al. (2015, MS)
Strategic Human Capital	3	<i>Do high status analysts continue to perform when switching employer?</i>	Knowledge-based/capability-based view	Star analysts at new employers – earnings forecast accuracy (-)	Groysberg et al. (2008, MS)
	6	<i>How does status influence group effectiveness?</i>	Social status Theory	Proportion of high status members – perceived group effectiveness (-)	Groysberg et al. (2011, MS)

^aAs indicated in Figure 1