

# **Executives' Use of Social Media as an Information Channel: Evidence from Digital Paywall Adoption<sup>1</sup>**

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**Abstract.** This study examines the strategic purpose of executives' social media engagement by investigating whether and how executives use social media to supplement traditional media. Leveraging a natural experiment created by the staggered adoption of digital paywalls by U.S. local newspapers, along with comprehensive data on S&P 1500 executives' social media activity, we document several findings. First, following local newspaper paywall adoption, executives of local firms significantly increase their posting activity, consistent with efforts to fill the resulting information and attention void. Second, this heightened activity is accompanied by a marked shift toward impression management content. Third, the capital-market implications of executive posts depend on the information environment: although executive posts reduce information asymmetry when local newspapers remain freely accessible, paywall adoption effectively neutralizes this beneficial effect. Cross-sectional analyses further support the proposed mechanisms. The increase in posting volume is concentrated among firms serving informationally disadvantaged retail investors and attention-sensitive consumers, as well as those with high pre-paywall local newspaper coverage. Meanwhile, the shift toward impression management is strongest among firms previously subjected to high local newspaper scrutiny. Finally, we show that executives' increased social media communication effectively restores the stakeholder attention lost following paywall adoption.

*Keywords:* Executive social media emergence, traditional media, information dissemination, media attention, impression management, natural experiment, corporate governance

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<sup>1</sup> Authors are listed in order of their contributions.

## 1. Introduction

Executives are increasingly turning to social media to communicate both professionally and personally. By 2024, 74% of Fortune 500 CEOs maintained at least one social media account on platforms such as X (formerly Twitter) and LinkedIn, up from 54% in 2019 (Le 2024). Across these platforms, executives share a wide range of content, including firm-related announcements, product promotions, personal reflections, public stances, and even lighthearted jokes. Given their prominence and the rapid dissemination capabilities of social media, their posts frequently attract substantial and immediate public attention. Despite the growing visibility of this behavior, existing work has primarily examined executives' use of social media to cultivate personal celebrity (Mooney et al. 2025). However, less is known about whether and how executives use social media in ways that serve the firm's strategic objectives.

Historically, firms have relied heavily on traditional media, such as newspapers, to attract the attention of stakeholders (Petkova et al. 2013, Kaniel and Parham 2017) and disseminate information (Fang and Peress 2009, Bushee et al. 2010). The rise of social media platforms has reshaped this landscape by providing both firms and their executives with alternative avenues for direct communication with stakeholders (Blankespoor et al. 2014, Jung et al. 2018). Unlike traditional media, social media allows greater control over the narrative, framing, timing, and tone of the messages they convey (Jung et al. 2018, Heavey et al. 2020). Additionally, executives' personal accounts serve as a distinct communication channel beyond corporate social media, even when they share similar content (Elliott et al. 2018, Crowley et al. 2024). However, to date there is little evidence on whether—and how—executives strategically use the unique features of social media to supplement traditional media channels. Given the rising prominence of executive-level social media activity and the well-documented role of media in shaping firm outcomes, understanding this behavior is both theoretically timely and managerially consequential.

To examine executives' strategic use of social media, we exploit a natural experiment: the staggered adoption of digital paywalls by local newspapers, which exogenously reduces the accessibility of firm-related information in traditional media. Leveraging a staggered difference-in-differences (DiD) research design, we analyze how executives adjust their social media posting strategies in response to diminished accessibility of traditional media coverage. This empirical setting thus allows us to identify the causal relationship between traditional media accessibility and executives' social media engagement, shedding light on whether and how executives strategically use the unique features of social media to supplement traditional media channels.

Using a sample of 18,336 firm-quarter observations from 802 publicly listed firms, we find that executives from local firms affected by digital paywalls significantly increase their social media posting activities relative to unaffected non-local firms. This pattern suggests that executives rely more on social media to attract attention and disseminate information when traditional media information accessibility

declines. However, we document that this increase in volume is accompanied by a strategic shift in content: posts by affected executives exhibit intensified impression management, characterized by the selective suppression of negative news. We also show that while executive social media activity reduces information asymmetry in a transparent media environment (pre-paywall), this beneficial association is effectively neutralized following paywall adoption. This outcome is consistent with the intensified impression management behaviors we observe. Cross-sectional tests further reveal that these responses are highly targeted. The volume increase is concentrated among firms with high pre-paywall local newspaper coverage and those serving informationally disadvantaged retail investors and attention-sensitive consumers. Conversely, the shift in impression management is driven by firms that previously faced negative local newspaper sentiment, consistent with a "scrutiny relief" mechanism. Finally, we show that this strategy is effective in regaining visibility: by ramping up social media activity, executives successfully mitigate the paywall-induced loss of stakeholder attention on social media.

This paper contributes primarily to the leadership and governance literature (Hambrick and Mason 1984, Hambrick 2007) by identifying the strategic drivers of executives' social media engagement. While prior literature has largely examined this phenomenon from the executive's personal perspective, often focusing on motives such as celebrity building (Mooney et al. 2025) or expressing public stances (Mkrtychyan et al. 2024), our paper shifts the lens to the organizational objectives driving this behavior of information governance. We provide systematic causal evidence that executives strategically deploy social media as a compensatory mechanism in response to the compromised accessibility of traditional intermediaries. Additionally, we specifically contribute to the stream of leadership and governance research examining executive communication and impression management (e.g., Chen et al. 2015, Whittington et al. 2016, Guo et al. 2021). We highlight the distinct role of social media as a high-discretion tool that allows executives to bypass formal constraints. Crucially, we identify traditional media as a vital cross-validation mechanism that disciplines this behavior, showing that strategic impression management intensifies when this external constraint is attenuated.

Second, this paper contributes to information economics research in strategy (e.g., Narayanan et al. 2000, Flammer et al. 2021). While prior literature emphasizes the value of voluntary disclosure in reducing information asymmetry, we demonstrate that this value is not intrinsic. Unlike mandatory reporting, voluntary social media disclosures allow for significant managerial discretion. We show that without the external governance mechanism to deter selective information sharing, the credibility and informational value of voluntary disclosure are fundamentally undermined.

Third, we advance research on media influence on firms (e.g., Pollock and Rindova 2003, Westphal and Deephouse 2011, Bednar et al. 2013, Lovelace et al. 2022), which has primarily examined the effects of a single information channel in isolation. By showing that executives adjust their social media activity

in response to shifts in traditional media accessibility, we highlight the need to consider how multiple information channels operate jointly. Our findings underscore the importance of strategic coordination across multiple channels in a complex and rapidly evolving information environment.

## **2. Context: Local Newspaper Digital Paywall Adoption**

Beginning in the mid-1990s, U.S. newspapers began making their content available online, initially offering it free of charge. Following the *New York Times'* adoption of a digital paywall in March 2011, many other outlets progressively instituted similar measures requiring users to pay for online access (Munevar 2024; see Figure 1 for an example). However, not all readers were willing to pay for content that was previously accessible free of charge. Empirical evidence confirms that digital paywall adoption significantly decreased newspapers' page views and daily web traffic (Kim et al. 2020). Consequently, digital paywalls reduced the accessibility of firm-related information on traditional media.

[INSERT Figure 1 HERE]

In this study, we specifically focus on digital paywall adoption by local newspaper outlets. Unlike national newspapers (e.g., *The New York Times*, *The Wall Street Journal*), which have relatively uniform geographical coverage, local newspapers disproportionately impact information accessibility regarding local firms. Because local newspapers predominantly cover local firms, the implementation of digital paywalls disproportionately reduces the traditional media accessibility of information about local firms compared to non-local firms. We leverage this context in a staggered DiD research design, using local newspaper's staggered paywall adoptions as an exogenous treatment to compare the social media activity of executives from local firms (the treatment group) to that of executives from non-local firms (the control group). Figure 2 summarizes the logic underpinning our identification strategy.

[INSERT Figure 2 HERE]

For our primary analysis, we utilize the set of digital paywall adoption events identified by Munevar (2024). The selection criteria focus on major U.S. local newspapers that ranked among the top 20 by daily circulation in 2010 and served as the only top-20 local newspaper in their respective cities. Table 1 lists these newspapers along with their digital paywall adoption dates.

[INSERT Table 1 HERE]

Because circulation rankings can vary depending on the specific audit period or data source, we assess the sensitivity of our results to alternative sample constructions. Specifically, we re-identify major local newspapers using 2009 daily circulation rankings (Editor & Publisher 2010), which yields a slightly

different sample of digital paywall events than the primary sample presented in Table 1.<sup>2</sup> Re-estimating our primary analyses using this alternative sample yields similar results, suggesting our findings are not driven by specific sample selection.

Finally, we follow Gurun and Butler (2012) to define local firms, classifying a firm as local if its headquarters is located within 100 miles of the newspaper's headquarters. Our results remain robust to using a broader 200-mile radius.

### 3. Hypotheses Development

#### 3.1. Do Executives Use Social Media to Supplement Traditional Media?

Traditional news media shape the firm visibility by directing stakeholder attention toward specific firms and their actions. Although media attention can entail scrutiny or negative opinion, it remains a scarce and valuable resource (Andrews and Caren 2010). Through editorial selection, prominence, and framing, traditional outlets channel stakeholder attention to particular firms, shaping which firms are noticed, discussed, and remembered. Greater media attention has been shown to produce favorable firm-level consequences, including stronger consumer responses (Kaniel and Parham 2017) and increased venture capital investment in early-stage organizations (Petkova et al. 2013).

Traditional news media also function as crucial information intermediaries that help mitigate information asymmetry between firm insiders and outside stakeholders (Fang and Peress 2009, Bushee et al. 2010). Information asymmetry arises because insiders possess superior knowledge of operations and prospects relative to outsiders (Feldman et al. 2014, Oehmichen et al. 2021) and is associated with higher costs of capital (Easley and O'Hara 2004), inefficient resource allocation (Akerlof 1970), and heightened agency problems (Jensen and Meckling 1976). Traditional media mitigate these frictions by increasing the accessibility of firm-specific information, synthesizing and contextualizing signals from multiple sources, and conducting independent reporting that provides third-party verification (Bushee et al. 2010).

Local newspapers, as a key component of traditional media, play a central role in the information environments of locally headquartered firms. On the supply side, local outlets devote substantial attention to producing local news (Cagé et al. 2020). Their geographic and social proximity enables them to obtain and report firm-specific, on-the-ground information that would otherwise remain undiscovered. Even national outlets often draw on original reporting generated by local journalists when covering local firms (Allee et al. 2025). On the demand side, both local and non-local stakeholders rely on local newspapers as a key source of information about locally headquartered firms (Engelberg and Parsons 2011, Gurun and Butler 2012). Survey evidence underscores the importance of local outlets: 50% of American adults

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<sup>2</sup> This sample includes the digital paywall adoption events of 10 newspapers: *Los Angeles Times*, *Houston Chronicle*, *Philadelphia Inquirer*, *Denver Post*, *Arizona Republic*, *Star Tribune*, *Tampa Bay Times*, *Boston Globe*, *Dallas Morning News*, and *San Francisco Chronicle*.

regularly read local newspapers, compared with only 17% who read national newspapers (Purcell et al. 2010). Although non-local stakeholders generally do not read geographically distant newspapers on a routine basis, they may still seek local coverage to obtain unique, firsthand information about firms in their portfolios—information that national outlets may not provide because of resource constraints. Together, these supply- and demand-side dynamics show that local newspapers substantially shape firms’ information environments (Cagé et al. 2020) and influence stakeholder behavior (Engelberg and Parsons 2011).

When local newspapers adopt digital paywalls, many audiences do not subscribe. As the accessibility of traditional local media coverage declines, the same firm signals reach fewer stakeholders and attract less attention. Under these conditions, firms and executives face increased pressure to adopt additional channels to bridge this information gap.

Social media provides firms and executives with a direct channel to preserve visibility and share information. First, regarding attention, social media platforms command a strategically significant user base; for instance, Gottfried (2024) reports that approximately 22% of U.S. adults use X (formerly Twitter), with usage rates rising with household income. This influential reach, combined with interactive features such as replying and forwarding, generates a “viral multiplier effect” that rapidly amplifies visibility among the general public (Wang et al. 2021). In this context, executives’ personal engagement is crucial. Executives often cultivate follower bases distinct from (and sometimes larger than) those of their firms, allowing them to capture unique attention beyond the reach of corporate accounts. Second, similar to traditional media, social media helps to disseminate firm information to a broader set of investors, facilitating market liquidity (Blankespoor et al. 2014). This direct channel is particularly effective given the shifting habits of information consumption; recent data indicates that about half of U.S. adults (53%) regularly derive news from social media (Pew Research Center 2025). In addition, executives’ personal accounts constitute an information channel distinct from corporate accounts; stakeholder responses to executive posts are incremental even when similar content is shared by the firm (Crowley et al. 2024).

Consequently, when firm information in traditional media becomes less accessible because of local paywall adoption, the effectiveness of conventional channels in attracting stakeholder attention and mitigating information asymmetry declines. In response, executives have both stronger incentives and the capability to rely more on social media as a supplementary channel. Thus, we propose:

**Hypothesis 1 (H1).** *When local newspapers adopt digital paywalls, executives of local firms will increase their social media posting activity.*

### **3.2. How Do Executives Adapt Social Media Content to Supplement Traditional Media?**

Unlike traditional media or official disclosure channels (e.g., SEC filings), social media offers executives a more flexible tool to communicate *directly* with stakeholders (Heavey et al. 2020). Despite SEC

regulations about material information disclosure, executives retain substantial discretion over the content, tone, and timing of their social media communications (Jung et al. 2018).

We now turn from whether executives increase posting volume to how they adapt the content of their posts when traditional-media information accessibility declines. Impression management involves strategic behaviors whereby actors use verbal and non-verbal tactics to shape or sustain a favorable image among targeted audiences (Bozeman and Kacmar 1997). Executives frequently engage in impression management in various contexts: for example, by hinting at upcoming acquisitions to soften negative analyst reactions (Busenbark et al. 2017), shaping investor perceptions through strategy presentations (Whittington et al. 2016), and employing earnings management tactics during CEOs' interim tenure to enhance stakeholder perceptions (Chen et al. 2015).

Social media provides an effective venue for executive impression management because it affords substantial discretion over message content, timing, and framing (Jung et al. 2018, Heavey et al. 2020). Under the SEC's 2013 guidance, firms and their executives may use social media to disclose material information in compliance with Regulation Fair Disclosure (FD) if investors have been alerted in advance to the specific accounts that may be used for disclosure; otherwise, firms typically release material information through formal channels (e.g., the SEC's Electronic Data Gathering, Analysis, and Retrieval [EDGAR] system or press releases) and then disseminate it on social media (U.S. Securities and Exchange Commission 2013). Within these boundaries, executives retain considerable discretion to highlight favorable developments and downplay unfavorable ones, shaping stakeholders' impressions of the firm. For example, firms have been found to disproportionately disseminate earnings news that meets analyst expectations on social media, whereas negative surprises are less frequently shared (Jung et al. 2018).

However, executives' ability to effectively engage in impression management via social media is constrained when local newspapers remain readily accessible. Given the extensive coverage provided by local outlets, stakeholders can readily cross-validate executives' social media posts against local newspaper coverage to detect inconsistencies or omissions. Under these conditions, selective emphasis or overly positive framing becomes easier for stakeholders to identify. Even when stakeholders do not directly identify these tactics, accessible local newspapers still provide comprehensive firm-related information that limits the impact of impression-management attempts.

Beyond enabling stakeholder verification, local newspapers exert direct scrutiny over local firms (Heese et al. 2022, Choi and Valente 2023). Because of their geographic proximity and sustained focus on nearby firms, local outlets are particularly effective in deterring executives from engaging in behaviors that could invite public criticism or reputational damage (Kim et al. 2024). Through this scrutiny, local newspapers increase transparency, discourage selective disclosures, and hold executives accountable for the communications they make.

When local newspapers adopt digital paywalls, these constraining mechanisms are disrupted by the introduction of significant information friction. By erecting a financial barrier to access, paywalls increase the information acquisition costs for stakeholders. Faced with these higher search costs, stakeholders rationally reduce their monitoring effort, making them less likely to routinely cross-check executive claims against independent reporting. This creates a “verification gap” where executive social media posts effectively become the path of least resistance for information, reducing the probability that selective disclosure will be actively detected and challenged. Additionally, the diminished reach of media scrutiny alters the strategic incentives of firm executives. Digital paywalls fundamentally weaken the media's disciplinary mechanism by restricting the public dissemination of local reporting (Kölbel et al. 2017). Even if impression management behaviors are detected by local journalists, the paywall limits audience exposure to their critical coverage, thereby dampening the potential reputational fallout. This reduction in the consequences of detection lowers the expected cost of withholding negative information or spinning ambiguous news.

Taken together, executives engage in a rational behavioral shift: they exploit the reduced information accessibility to exercise greater discretion, intensifying impression management tactics to shape stakeholder perceptions with less fear of contradiction. Thus, we propose:

**Hypothesis 2 (H2).** *When local newspapers adopt digital paywalls, executives of local firms will engage in greater impression management on social media.*

### **3.3. Market Implications**

The strategic adaptation of executive social media behavior, characterized by increased volume (H1) and intensified impression management (H2), raises a critical question regarding the net impact on the informational value of these disclosures. Specifically, does this compensatory channel successfully replicate the information intermediation role of traditional media, or does the selective nature of the sharing undermine its utility? To answer this, we focus on information asymmetry. Because information asymmetry captures the gap among investors, it serves as a direct proxy for whether executive social media posts provide incremental, credible information to the capital market.

The theoretical prediction for the net effect of executive social media posts on information asymmetry is ambiguous. On the one hand, executives' social media posts disseminate firm-specific information to a broader set of investors (Blankespoor et al. 2014). Investors who might not be reached through traditional channels, such as firm press releases or traditional media coverage, may become informed through executives' social media posts. In this case, information asymmetry among investors is likely to decrease.

On the other hand, executives may also use social media for impression management, selectively emphasizing positive information and downplaying negative news. Because many investors increasingly

rely on social media for firm-related information, some investors may form overly optimistic beliefs about the firm that deviate from its true condition. In this situation, information asymmetry may actually increase, as some investors are misled while others are not.

The adoption of a digital paywall by local newspapers can alter which of these effects dominates. When local newspapers have not adopted a digital paywall, their coverage remains broadly accessible and can discipline executives' impression management on social media. In this environment, executives' social media posts may still decrease information asymmetry among investors. Once local newspapers adopt a digital paywall, however, access to local news becomes more restricted. Executives' impression management behaviors can then be further intensified with an implicit intention to guide or mislead investors, who increasingly rely on executives' social media posts as an accessible information source. Thus, after the adoption of a digital paywall, the noise of information becomes stronger, and the function of social media in decreasing information asymmetry is reduced. Therefore, we propose:

**Hypothesis 3 (H3).** *Before local newspapers adopt a digital paywall, executives' social media posts decrease information asymmetry among investors. After the adoption of a digital paywall, this beneficial effect disappears.*

#### 4. Sample and Methods

##### 4.1. Data Sources

To construct our sample, we integrate multiple data sources, with social media data serving as our primary dataset. To build the social media dataset, we first obtained a comprehensive list of senior executives from S&P 1500 firms from BoardEx, including C-level executives (e.g., CEOs, CFOs, COOs), presidents, and chairmen.<sup>3</sup> Our initial list from BoardEx consisted of 27,346 senior managers from 1,875 S&P 1500 firms, along with their biographical details and employment histories to facilitate subsequent searches and account verification.

Next, we hired several research assistants (RAs) to manually identify and verify these executives' social media accounts on the X platform (formerly Twitter). The RAs located accounts primarily through two methods: (1) conducting web searches combining each executive's name, company, and keywords such as "Twitter account," and (2) directly searching for executives' names on the X platform. To ensure accurate identification, the RAs carefully verified the authenticity of each account by reviewing available profile information, including bios, profile photos, locations, posted content, and follower/following networks. To further enhance reliability, we assigned overlapping samples to multiple RAs for cross-validation and comparability of their account verification outcomes. Finally, one author conducted an additional review

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<sup>3</sup> We did not restrict our analysis exclusively to CEOs as firms' social media strategies are typically collaborative efforts involving multiple top management team members. Moreover, in many firms, executives other than CEOs, such as COOs or CTOs, actively engage in social media, even when CEOs themselves do not have social media accounts.

of all identified accounts to minimize false positives (type I errors). Through this verification process, we identified 3,940 executive accounts. Subsequently, we collected detailed social media posts and account information through the Twitter API v2 Academic Research access.<sup>4</sup>

In addition to social media data, we obtained firm fundamental information from Compustat, traditional media coverage data from RavenPack, earnings announcement details and analyst coverage from I/B/E/S, firm headquarters locations summarized by Gao et al. (2021) based on SEC 10-K/Q filings, stock market information from CRSP, and retail investor trading information from the NYSE's Daily TAQ (Trade and Quote) database. We merged these datasets at the firm-quarter level for our primary analyses.

## 4.2. Sample Selection

Since digital paywall adoptions by local newspapers primarily occurred between 2011 and 2013, we restricted our sample period to 2010–2015 to capture the relevant treatment window. Following Jung et al. (2018), we retained only firms with at least one executive who maintained a social-media account, which ensures that executive use of social media was allowed within the organization. We also excluded firms in the newspaper industry (SIC 2711) as they compete with local newspapers and can distribute their own news, leading to fundamentally different media interactions than other firms. These restrictions yielded a final sample of 18,368 firm-quarter observations from 802 distinct firms.

We adjusted the sample for specific hypotheses. For H2, which analyzes impression-management behavior in the quarterly earnings-announcement context (see Section 4.3.2 for details), we excluded firm-quarters without a quarterly earnings announcement, yielding a sample of 18,086 firm-quarter observations. For H3, which examines daily market implications, we converted the data to the firm-day level (see Section 4.3.3 for details), resulting in a dataset of 1,161,643 firm-day observations.

## 4.3. Dependent Variables

**4.3.1. Social Media Activities.** We measure executives' social media activities using two primary variables: total Twitter posts by executives (*Post\_nb*) and average posts per executive (*Post\_avg*). *Post\_nb* captures the aggregate number of posts made by all senior executives within a focal firm during a given period. *Post\_avg* is computed by dividing the total number of Twitter posts by the total number of the firm's senior

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<sup>4</sup> The Twitter API v2 Academic Research track provided access to detailed account information and historical social media posts. This access level was decommissioned following the platform's rebranding and transition to a new API pricing structure in early 2023.

executives identified from BoardEx.<sup>5</sup> The use of average posts per executive helps alleviate concerns that increases in total posting activity might simply reflect an increased number of executives at the focal firm. When constructing these measures, we consider all four types of posts: original posts, replies to others, forwarded (retweeted) posts, and quoted posts. All these post types appear publicly on executives' account pages and are visible to followers and other Twitter users.

**4.3.2. Impression Management Behavior.** We examine executives' impression management behavior on social media in the context of quarterly earnings announcements. Compared to other types of firm announcements (e.g., mergers and acquisitions or board changes), earnings announcements contain clear and objective information that investors easily interpret as either good or bad news. Jung et al. (2018) provide evidence that firms are more likely to disseminate earnings announcements via social media when earnings meet or exceed analyst consensus expectations. This behavior aligns closely with "boasting" (highlighting positive earnings outcomes) and "burying" (downplaying or concealing negative outcomes) impression management tactics (Bolino et al. 2008).

To capture this phenomenon empirically, we construct an indicator variable (*Misest*) equal to 1 if reported quarterly earnings fall short of analyst consensus expectations, and 0 otherwise. We then measure executives' earnings-related Twitter activity during the earnings-announcement window by coding a binary variable (*Earning\_post\_dum*) equal to 1 if any executive posts at least once about the earnings announcement during this window, and 0 otherwise. This measure is distinct from the general posting activity used in H1 and captures only posts specifically referencing the quarterly earnings announcement.<sup>6</sup> Because the distribution of post counts is highly skewed, with most non-zero values equal to 1, the binary specification captures this behavior more reliably; results are robust to using the number of earnings-related posts or the number of executives posting.

Following Jung et al. (2018), we regress these earnings-related social media activities on *Misest*, controlling for relevant firm-level variables. The regression coefficient on *Misest* thus indicates the extent to which negative earnings surprises influence executives' decisions to disseminate earnings-related information via social media, serving as our measure of executive impression management.

**4.3.3. Information Asymmetry Among Investors.** To measure information asymmetry, we employ the bid-ask spread (*Spread*), calculated as the daily difference between bid and ask prices divided by their midpoint (expressed as a percentage). This measure is widely used in accounting and finance literature as

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<sup>5</sup> This total number includes all executives included in our initial account search, regardless of whether they have an active Twitter account. This approach captures the aggregate intensity of the firm's executive social media activity relative to its total leadership capacity.

<sup>6</sup> Following Jung et al. (2018), we identified tweets posted within the period from 30 days prior to 10 days after each earnings announcement. We then utilized the ChatGPT API (gpt-4o-2024-11-20 model) to classify these tweets as earnings announcement-related or not. Finally, we manually verified the accuracy of this classification.

an indicator of information asymmetry and market liquidity (e.g., Blankepoor et al. 2014, Jung et al. 2018). Strategy scholars have also applied this measure under related terms such as "information risk" (Schnatterly et al. 2008) and "investor opinion differences" (Guo et al. 2021), both reflecting underlying information asymmetry among investors.

Following Crowley et al. (2024), we use daily spreads and align the timing of executive posts to ensure temporal ordering: any post published after the prior trading day's close (4:00 p.m. ET) and before the next day's open (9:30 a.m. ET) is assigned to the next trading day (weekend and holiday posts are assigned to the subsequent trading day). This overnight alignment ensures that posts have occurred before the trading that determines the day- $d$  spread, reducing simultaneity concerns.

For this hypothesis, we use daily rather than quarterly data. Quarterly spreads would not be suitable for our setting. If spreads and posting are measured in the same quarter, posting and information asymmetry are observed contemporaneously, creating simultaneity concerns. If spreads are measured in the subsequent quarter, they will already incorporate the effects of earlier posting. As a result, quarterly spreads would not cleanly capture the day-by-day relationship between executives' social-media activity and information asymmetry.

#### **4.4. Independent Variable**

Our independent variable (*TreatmentI*) is a binary indicator equal to 1 if a firm's headquarters is located within 100 miles of one of the eight local newspapers in our sample and the local newspaper has adopted a digital paywall by the focal quarter; otherwise, it is 0. For instance, McDonald's Corp., headquartered within 100 miles of the *Chicago Tribune* (which adopted a digital paywall on November 1, 2012), has a treatment status of 0 before the fourth quarter of 2012 and 1 from the fourth quarter of 2012 onward. Conversely, a firm such as AT&T Inc., whose headquarters is not within 100 miles of any sampled local newspapers, maintains a treatment status of 0 throughout the sample period.

#### **4.5. Control Variables**

We include several firm-level characteristics as control variables in our analysis. To mitigate concerns about potential "bad controls," all time-varying controls are measured one period prior to our dependent and independent variables.

Specifically, we control for firm size (*Size*), measured as the natural logarithm of total assets (in millions) plus one. We also control for the number of shareholders (*Shareholder*), calculated as the natural logarithm of shareholder count (in thousands) plus 1. To account for firm performance, we include the market-to-book ratio (*MTB*), defined as the market value of equity divided by the book value of equity. Additionally, we control for national media coverage (*National media cov.*), measured as the natural logarithm of one

plus the number of news articles with a RavenPack Relevance Score of 90 or higher.<sup>7</sup> Furthermore, we include analyst coverage (*Analyst cov.*), measured as the natural log of one plus the number of analysts following the firm, and institutional ownership (*InstOwn percentage*), defined as the proportion of shares held by institutional investors. Finally, we control for firms' dedicated communication resources by including the number of executives responsible for corporate communications, media relations, investor relations, public relations, or corporate relations (*Comm\_executive*). Information on these executives is sourced from the BoardEx database ("Organization—Composition of Officers, Directors, and Senior Managers"). To account for baseline firm-level social-media intensity, we include the log of one plus the number of posts from the company's official Twitter account (*Firm posts*) to make sure that the estimated executive response was incremental to each firm's ongoing social-media strategy rather than reflective of persistent firm-wide communication intensity. The results remain substantively unchanged across specifications with or without individual controls.

#### 4.6. Estimation

Our empirical setting follows a staggered DiD design. To estimate the effect of local-media paywall adoption on executives' social-media activity (H1), we employed the estimator proposed by Callaway and Sant'Anna (2021; hereafter CS). We selected this as our primary specification because standard two-way fixed effects can yield biased estimates under staggered adoption by using inappropriate comparisons between earlier- and later-treated groups (Baker et al. 2022).

Our dependent variables (*Post\_nb* and *Post\_avg*) are counts of executive posts at the firm-quarter level. We estimated the main treatment effects on the count scale to facilitate the interpretation of coefficients as changes in the number of posts.

However, to ensure our results are not driven by the linear functional form assumptions or the skewness inherent in count data, we performed a robustness test using a stacked DiD design (Cengiz et al. 2019, Baker et al. 2022). We created cohort-specific datasets including treated units and clean controls, stacked them, and re-estimated the effects using two alternative specifications: (i) a Poisson pseudo-maximum likelihood (PPML) estimator to explicitly model the count distribution, absorbing firm-by-stack and quarter-by-stack fixed effects; and (ii) an OLS regression of  $\log(1 + Y)$  absorbing the identical fixed effects. These tests serve to verify the robustness of our baseline estimates across different functional forms and estimator selections.

In H2, we examine whether paywall adoption moderates the relationship between negative earnings surprises (*Missses*) and executives' earnings-related posting (*Earning\_post\_dum*), our proxy for impression

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<sup>7</sup> We calculated national media coverage based on articles from the following prominent media outlets: *The Wall Street Journal*, *Barron's*, *Forbes*, *CNBC*, *The New York Times*, *Bloomberg News*, *Reuters*, *Dow Jones Newswires*, and *USA Today*.

management. In H3, we examine the association between executives' overnight posting (*Posts before market opens*) and daily bid-ask spreads (*Spread*) and test whether this association changes after local newspapers adopt a digital paywall. While the CS estimator is the gold standard for outcome levels, it is not natively designed to estimate moderating effects involving time-varying interaction terms. Therefore, we estimate linear panel models with firm and time fixed effects (hereafter TWFE) that include the relevant interaction terms. We rely on TWFE for these mechanism tests for two reasons. First, as shown in Table 2, panels A and B, the TWFE estimates for our main hypothesis (H1) are quantitatively and qualitatively similar to the robust CS estimates. This suggests that the “negative weighting” bias often associated with staggered adoption is negligible in our setting. Second, 65.53% of our sample consists of never-treated firms. As noted by Baker et al. (2022), the bias in TWFE arises primarily from using earlier-treated units as controls for later-treated units. Given our large reservoir of clean controls, the identifying variation is dominated by safe treated-vs-untreated comparisons.

For H2, we estimate the following quarterly panel model:

$$\begin{aligned} \text{Earning\_post\_nb}_{i,q} &= \alpha + \sigma \text{misest}_{i,q} + \beta (\text{misest}_{i,q} \times \text{treatment}_{i,q}) + \rho \text{treatment}_{i,q} + \gamma' X_{i,q-1} \\ &\quad + \delta_i + \theta_q + \varepsilon_{i,q}. \end{aligned}$$

Here,  $\sigma$  captures executives' baseline impression management behavior in response to negative earnings surprises before paywall adoption, and  $\beta$  captures how paywall adoption changes this relationship, which is the coefficient of interest for H2. The vector  $X_{i,q-1}$  contains lagged firm-level controls. Firm fixed effects  $\delta_i$  and quarter fixed effects  $\theta_q$  absorb unobserved heterogeneity across firms and over time. We cluster standard errors at the firm level to account for within-firm serial correlation.

For H3, we estimate a firm-day panel model of the form:

$$\begin{aligned} \text{Spread}_{i,d} &= \alpha + \lambda \text{Posts before market opens}_{i,d} \\ &\quad + \beta (\text{Posts before market opens}_{i,d} \times \text{treatment}_{i,d}) + \rho \text{treatment}_{i,d} + \gamma X_{i,q-1} \\ &\quad + \delta_i + \theta_d + \varepsilon_{i,d}. \end{aligned}$$

In this specification,  $\lambda$  captures the baseline association between executives' overnight posting and daily bid-ask spreads before paywall adoption, while  $\beta$  captures how this association changes after paywall adoption. As in the quarterly model,  $X_{i,q-1}$  includes lagged firm-level controls. Because these accounting data are reported quarterly, we map the most recent lagged quarterly values to each daily observation. Firm fixed effects  $\delta_i$  and day fixed effects  $\theta_d$  absorb unobserved heterogeneity across firms and over time, and standard errors are clustered at the firm level.

## 5. Main Findings

Table 2 shows the summary statistics and correlation matrix of the sample used for H1. Descriptive statistics for the samples used in the H2 and H3 tests are reported in Online Appendix Tables A1 and A2.

[INSERT Table 2 HERE]

Table 3 presents the effect of local newspaper digital paywall adoption on executives' social media posting activities. Panel A reports primary estimates from the CS estimator. We find that following paywall adoption by local newspapers, executives significantly increase their social media posting activity relative to executives of control firms. We report results using both the never-treated and not-yet-treated groups as controls. Across both specifications, the total number of executive posts (Models 1 and 3) and the average number of posts per senior executive (Models 2 and 4) rise significantly.

These effects are economically meaningful. Based on Model 1, digital paywall adoption is associated with an increase of approximately 12.88 additional executive posts per firm-quarter. Relative to the sample mean of 19.79, this corresponds to a 65% increase in posting volume. Taken together, these results indicate that reduced accessibility of firm-related information in traditional media induces executives to intensify their social media engagement, consistent with the view that executives use social media as an additional information dissemination channel. To address the right-skewness and count-based nature of our data discussed in Section 4.6, we re-estimate the treatment effect using a Stacked DiD design with alternative functional forms (Online Appendix Table B1). The coefficients remain positive and statistically significant across all specifications. Notably, the Stacked PPML specification for the total number of executive posts (Model 1) yields an implied magnitude of approximately 70.7%, which aligns closely with the 65% relative increase estimated via our primary CS model. While the estimated magnitude in the log  $(1 + Y)$  linear regression (Model 3) is smaller at 14.0%, this result remains statistically significant and further confirms that our conclusions are robust to the choice of functional form and estimator selection.<sup>8</sup>

Panel B of Table 3 reports two-way fixed effects regressions that serve as descriptive benchmarks and allow us to display coefficients on the treatment variable and the control variables. The treatment coefficients from these TWFE models are similar in sign and significance to the CS estimates in panel A, which reinforces the main findings.

[INSERT Table 3 HERE]

Figures 3a and 3b plot dynamic event-study estimates of the effect of local newspapers' digital paywall adoption on executives' social media activity, using the quarter immediately before adoption ( $t = -1$ ) as the reference period. The figures report 95% (light gray) and 90% (dark gray) uniform confidence

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<sup>8</sup> The lower coefficients in the log-linear specification are expected. As Cohn et al. (2022) demonstrate, 'log1plus' regressions lack a clear economic interpretation and suffer from inherent biases. We therefore rely on our primary CS model and the PPML robustness check to interpret the economic magnitude of our findings.

intervals. In both figures, the pre-adoption coefficients are statistically indistinguishable from zero, providing support for the parallel trends assumption underlying our staggered DiD design. Following adoption, we observe a gradual increase in social media activity that becomes statistically significant and peaks in magnitude around three to four quarters after adoption. This suggests that the shift in executive communication behavior materializes gradually rather than immediately.

[INSERT Figure 3a and 3b HERE]

Table 4 reports the results on how local newspaper digital paywall adoption influences executives' impression management on social media. Model 1 establishes the baseline behavior: there is a significantly negative association between earnings falling below analyst consensus (*Misest*) and the likelihood that an executive posts earnings-related news (*Earning\_post\_dum*). This pattern is consistent with strategic impression management, where executives highlight positive news and suppress negative outcomes, complementing Jung et al.'s (2018) evidence on selective dissemination. As reported in Online Appendix Table B2, these results are robust to using count-based measures of posting activity, indicating that our findings are not driven by the choice of a binary dependent variable.

Model 2 tests H2 by adding the interaction between *Misest* and paywall adoption (*Treatment*). The coefficient on the interaction term is negative and statistically significant (-0.0135,  $p < 0.05$ ), indicating that the strategic avoidance of earnings-related posting after negative surprises intensifies for treated firms. Economically, this effect is substantial. The interaction coefficient is more than double the magnitude of the baseline sensitivity (-0.0051), suggesting that the tendency to withhold bad news intensifies dramatically when traditional media scrutiny is reduced.

It is also worth noting that the coefficient on the paywall adoption indicator is positive (0.0151,  $p < 0.10$ ), indicating that executives generally increase earnings-related disclosures when earnings meet or beat expectations, which is consistent with our finding in H1. In other words, when the accessibility of firm-related information through traditional media declines, executives increasingly engage in impression management by suppressing the dissemination of disappointing earnings relative to positive news. Taken together, these findings show that executives adapt the content and selectivity of their information dissemination strategies in response to shifts in the information environment.

[INSERT Table 4 HERE]

Table 5 reports the relationship between executives' social media activity and information asymmetry, measured by the daily bid-ask spread. In Model 1, the coefficient on *Posts before market opens* is negative and statistically significant ( $p < 0.10$ ). Consistent with the temporal alignment strategy detailed in Section 4.3.3, this specification exploits the predetermined nature of overnight posts to mitigate simultaneity bias. Furthermore, by explicitly controlling for official firm accounts and concurrent market-hour executive posts, we isolate the specific informational value of pre-market communication of

executives independent of intraday trading dynamics. Model 2 shows a similar pattern when we measure overnight activity using the log of one plus the number of posts, confirming that the result is robust to the functional form used for the independent variable.

The interaction between *Posts before market opens* and *Treatment1* is positive and statistically significant in both columns ( $p < 0.05$ ). This implies that the information-improving association of overnight posts weakens substantially after local newspapers adopt a digital paywall. We formally test whether the net association (0.0006) after paywall adoption (coefficient on *Posts* + coefficient on interaction term) is significantly different from zero. *F*-tests fail to reject the null hypothesis in both specifications ( $p > 0.10$ ). This indicates that while the net relationship becomes directionally positive, it is statistically indistinguishable from zero. In other words, we do not find evidence that posting increases information asymmetry (harmful), but rather that paywall adoption effectively neutralizes the beneficial effect observed in the pre-period.

These effects are economically meaningful. In Model 1, one additional overnight executive post before paywall adoption is associated with a reduction in the bid-ask spread of about 0.0009. Given that the average spread in our sample is approximately 0.064, this represents a decrease of about 1.4% relative to the mean. Since executives often make multiple posts before the market opens, the cumulative reduction in asymmetry can be sizable. However, this benefit is overpowered by the interaction effect. The estimated interaction coefficient (0.0015) is roughly 1.7 times the magnitude of the baseline effect (-0.0009), illustrating mathematically why the net beneficial effect is fully negated. Taken together, these findings highlight the critical role of traditional media as a cross-validation channel that disciplines executive disclosure and preserves the informational value of their social media posts.

## 6. Additional Tests

We conducted additional analyses to shed light on the mechanisms underlying our main results and to further validate our conclusions.

### 6.1. Stakeholder Groups Targeted by Executives' Increased Social Media Posts

As argued in Section 3.1, the adoption of a digital paywall creates two distinct frictions: an information shock (reduced access to firm information) and an attention shock (reduced media attention paid to firms). However, these shocks do not affect all stakeholders equally. Sophisticated stakeholders (e.g., institutional investors) likely possess alternative information channels (e.g., professional data terminals) and are less sensitive to subscription fees. In contrast, retail investors and consumers rely heavily on traditional media for both awareness and information, making them most likely to be "walled off" from the firm.

Therefore, to validate that executives are strategically responding to these specific frictions, we examine whether the increase in social media activity is concentrated among firms where these relatively more vulnerable stakeholders are most dominant. If executives use social media to compensate for lost

media accessibility, we expect the treatment effect to be driven by firms with a greater need to reach informationally disadvantaged retail investors (Section 6.1.1) and attention-sensitive consumers (Section 6.1.2) rather than a generalized increase across all firms.

**6.1.1. Retail Investors.** Institutional investors typically possess dedicated research staff and access to professional information services (e.g., Bloomberg, Reuters), rendering them relatively immune to subscription-based local newspaper paywalls. In contrast, retail investors are significantly more vulnerable. Prior research shows that retail investors rely heavily on public media coverage when making investment decisions (Blankespoor et al. 2018) and are more reluctant to pay for access to local news content (Munevar 2024). Consequently, firms with a higher proportion of retail trading face a more severe "information vacuum" once paywalls are introduced, which should create stronger incentives for executives to bypass the paywall via social media.

To test this expectation, we partition the sample based on the proportion of retail investor trading volume in the year prior to paywall adoption.<sup>9</sup> Firms with a retail trading share above the sample median are coded as high retail, and firms below the median are coded as low retail. Consistent with our prediction, columns 1 to 4 of Table 6 show that the increase in executives' social media posting after paywall adoption is statistically significant only for firms with high retail investor trading volume. This indicates that executives increase their social media posting activities to compensate for the information accessibility loss of their retail investors.

**6.1.2. Consumers.** Consumers represent another key stakeholder group, but their engagement depends critically on firm salience. Consumer purchase behavior—particularly for discretionary goods and services—is heavily influenced by the attention they devote to firms (Noh et al. 2025). Historically, firms rely on local newspaper coverage to capture consumers' attention and maintain visibility in the local market (Gurun and Butler 2012). When paywalls restrict this coverage, firms face an "attention shock" that threatens to reduce foot traffic and demand. We therefore expect the increase in executive social media posting to be concentrated among firms where consumer demand is most sensitive to such shifts in attention.

To empirically test this expectation, we divide firms according to whether they operate in industries characterized by discretionary consumer visits (e.g., retail, dining, entertainment). We rely on the industry classification developed by Noh et al. (2025), who validated these sectors using actual foot-traffic data.<sup>10</sup>

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<sup>9</sup> For treated firms, we measure retail trading share over the four quarters preceding the quarter of local paywall adoption. For control firms (which lack a specific adoption date), we measure retail trading share in 2011, the year the first digital paywall in our sample was introduced.

<sup>10</sup> The discretionary-visit group includes firms in North American Industry Classification System (NAICS) codes 32, 42, 44–45, 51, 53, 54, 56, 71, 72, and 81. Sectors such as Information (NAICS 51) and Manufacturing (NAICS 32) are included because some firms in these industries contain major consumer-facing segments (e.g., media, software, apparel, beverages, and consumer goods) where consumer attention drives demand. While these codes also capture B2B firms, excluding them would omit major consumer brands that rely on public attention.

We acknowledge that applying these industry codes to the broader Compustat universe introduces measurement noise, as certain sectors (particularly Manufacturing and Information) include both consumer-facing brands and business-to-business (B2B) entities. However, including B2B firms, whose demand is likely insensitive to local newspaper attention, in our "discretionary" group serves to dilute the estimated treatment effect. Consequently, the inclusion of these broader categories introduces an attenuation bias, making our positive and significant estimates strictly conservative.

Columns 5 through 8 of Table 6 report the results. Consistent with the attention-substitution hypothesis, we find that the effect of paywall adoption is driven primarily by firms in attention-sensitive industries. For firms in industries with discretionary consumer visits (column 5), the treatment effect is economically large and statistically significant (coefficient = 21.96,  $p < 0.05$ ). In contrast, for firms in industries without discretionary visits (column 6), the coefficient is small (6.91) and statistically insignificant. This stark contrast suggests that executives also utilize social media as a targeted mechanism to reclaim the scarce consumer attention lost to the paywall.

[INSERT Table 6 HERE]

## 6.2. Local Newspaper Relationship

To further substantiate that our findings are driven by the specific loss of traditional media intermediation, we examine cross-sectional heterogeneity based on the firm's pre-paywall relationship with local newspapers.

**6.2.1. Pre-Paywall Local Newspaper Coverage.** Although local outlets disproportionately cover locally headquartered firms, their limited attention is distributed unevenly, creating substantial variation in pre-paywall coverage. We view pre-paywall coverage as a proxy for the intensity of the treatment shock: firms that historically relied on local newspapers for visibility experience a severe "information blackout" when the paywall is adopted, whereas firms that rarely appeared in local news are effectively untreated by the change. Accordingly, we expect the compensatory increase in executives' social media activity to be concentrated among high-coverage firms that face the greatest loss of attention.

To test this, we partition the treated sample into firms with high pre-paywall local newspaper coverage (above the median) and those with low coverage. We then estimate the treatment effect for each subgroup separately against the full sample of non-local control firms.<sup>11</sup>

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<sup>11</sup> The local newspaper measure is based only on each firm's own local outlet. For example, when classifying firms associated with the *Denver Post*, we use coverage from the *Denver Post* only and ignore coverage from other local newspapers such as the *Boston Globe*. Because non-local control firms are not local to any of the outlets that adopt paywalls in our sample, they cannot be linked to a specific local newspaper. We therefore divide only the treated firms into high- and low-coverage subsamples and retain the full set of control firms. In Model 1, for instance, high-coverage treated firms are compared with the entire control group.

Panel A of Table 7 presents the results. Consistent with the shock-intensity hypothesis, we find that the increase in social media posting is statistically significant only for firms with high pre-paywall local coverage (Models 1 and 3). In contrast, the estimated effects for low-coverage firms (Models 2 and 4) are statistically indistinguishable from zero. This pattern indicates that the aggregate results are driven primarily by firms with a high baseline dependence on local newspapers, reinforcing the interpretation that executive tweeting is a direct response to the specific loss of traditional media accessibility.

**6.2.2. Pre-paywall Local Newspaper Sentiment.** As argued in H2, local newspapers constrain impression management through two related mechanisms: stakeholder cross-validation (enabling investors to verify claims) and direct disciplinary scrutiny (deterring suppression via the threat of exposure). Crucially, these forces are most active when local coverage is critical. Positive coverage rarely acts as a constraint; rather, it is negative coverage that disciplines executives and provides the counter-narratives investors need to detect impression management. Consequently, we posit that pre-paywall negative sentiment serves as a proxy for the intensity of this disciplinary pressure. We expect that the removal of local newspaper accessibility will lead to the sharpest increase in impression management among firms that previously faced negative sentiment, as these firms experience the greatest "relief" from monitoring.

To examine this prediction, we partition treated firms into two groups based on the pre-paywall share of negative local newspaper coverage. At the article level, we classify any article with a RavenPack sentiment score below 0 as negative and articles with scores of 0 or above as non-negative. We then calculate the proportion of negative articles for each firm. Firms with an above-median proportion are classified as the High-Negative-Coverage sample, while those with a below-median proportion form the Low-Negative-Coverage sample.<sup>12</sup>

Panel B of Table 7 presents the results. Consistent with the scrutiny-relief hypothesis, the intensification of impression management is driven entirely by firms that previously faced negative coverage. In the high-negative-coverage subsample (column 4), the interaction term (*Misest*  $\times$  *Treatment1*) is negative and statistically significant (-0.0279,  $p < 0.10$ ). This magnitude is striking as it is more than double the effect size observed in the main sample, indicating a massive pivot toward suppression of bad news once the "watchdog" is behind a paywall. In sharp contrast, for firms with low-negative-coverage (column 2), the interaction term is effectively zero (0.0004). These findings confirm that the paywall effect is not a general trend but a strategic response to the removal of disciplinary scrutiny.

[INSERT Table 7 HERE]

### 6.3. Social Media Attention

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<sup>12</sup> As in the coverage analysis, only treated firms are split into high- and low-negative-coverage subsamples; the full set of control firms is retained for each comparison to serve as a consistent counterfactual.

Our theoretical framework posits that local newspaper paywalls generate a severe "attention shock," reducing firm visibility. While we have shown that executives increase posting volume after a paywall is instituted (H1), a critical question is whether this strategy effectively captures stakeholder attention.

To test this, we examine the popularity of executive posts. We measure social media attention using the average number of likes, retweets, replies, and quotes per post. We interpret these metrics as a proxy for the firm's broader visibility, positing that digital engagement correlates with the overall attention firms receive. We acknowledge, however, that these metrics primarily reflect the reaction of the social media user base, potentially introducing measurement noise regarding the attention of other stakeholder groups. Because engagement metrics are undefined when no posts occur, we restrict this analysis to firm-quarters in which executives posted at least once. Furthermore, we employ a PPML estimator with firm and year-quarter fixed effects. We select this specification because engagement data are count based and right skewed, and because the standard CS estimator is not directly applicable for estimating changes in slopes.

Table 8 presents the results. Two findings stand out. First, the main effect of paywall adoption (*Treatment1*) is negative and highly significant across all specifications. For example, in Model 1, paywall adoption is associated with a sharp decline in average likes per post. This provides direct empirical validation of the "attention shock": when local newspaper coverage is restricted, the "buzz" surrounding the firm dissipates, and stakeholders pay significantly less attention even to the executives' social media presence.

Second, however, the interaction term (*Treatment1*  $\times$  *Post\_nb*) is positive and statistically significant. This indicates that executives can actively mitigate this attention loss by increasing their posting volume. While the baseline visibility drops (the main effect), the marginal benefit of each additional post increases. By maintaining a high-volume communication strategy, executives can offset the paywall-induced decline and sustain engagement with their digital audience.

#### 6.4. Robustness to Endogeneity Concerns

A potential concern regarding our results (specifically H1) is the presence of time-varying local confounders that could drive both local newspaper paywall adoption and executive social media activities simultaneously. For example, improvements in local digital infrastructure (e.g., increased internet penetration) might incentivize newspapers to monetize online content, while concurrently encouraging executives to increase their digital presence.

We address this concern in two ways. First, we re-estimate our baseline model while explicitly controlling for 3G network coverage in the firm's headquarters location.<sup>13</sup> The 3G network was rolled out in the U.S. in a staggered manner from 2002 to 2017, significantly facilitating the usage of social media

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<sup>13</sup> Following Heese and Pacelli (2024), we obtain digital maps of U.S. 3G network coverage from Collins Bartholomew's Mobile Coverage Explorer.

platforms (Heese and Pacelli 2024). As reported in Online Appendix Table B3, our main results remain robust to the inclusion of this control, suggesting that omitted variable bias related to digital infrastructure does not drive our findings.

Second, the cross-sectional heterogeneity documented in Sections 6.1 and 6.2 serves as a powerful falsification test. If our results were driven by general regional confounders, we would expect a uniform increase in social media activity across all local firms. Instead, we find that the effect is sharply concentrated among firms with high retail ownership, discretionary consumer demand, and negative media sentiment. This targeted pattern is consistent with specific strategic incentives rather than a generic regional trend.

## 7. Discussion and Conclusion

This study investigates whether and how executives use social media to supplement traditional media. Leveraging a novel natural experiment—the staggered adoption of digital paywalls by local newspapers—we find that while executives significantly increase posting activity to fill the information void, they simultaneously intensify impression management behaviors. This strategic adaptation has significant capital market consequences: while executive social media posts reduce information asymmetry in a transparent media environment (pre-paywall), paywall adoption effectively neutralizes this beneficial effect, as the loss of independent cross-validation diminishes the informational value of executive disclosures. Finally, we validate our proposed mechanisms through a series of additional tests—examining stakeholder targeting, pre-paywall media relationships, and social media engagement—which collectively reinforce our conclusions regarding the strategic nature of executive communication.

### 7.1. Contributions to the Research Literature

This paper contributes to several streams of strategic management literature. First, we contribute broadly to the strategic leadership and governance literature (Hambrick and Mason 1984, Hambrick 2007) by identifying the institutional antecedents of executives' strategic social media engagement. While executive social media activity has attracted considerable attention (Fuller et al. 2024, Lazarus 2025), prior research has primarily focused on engagement driven by personal motives, such as self-promotion (Mooney et al. 2025) or socio-political activism (Mkrtychyan et al. 2024). In contrast, we demonstrate how executives utilize their personal, identity-bearing accounts not merely for self-presentation, but to advance critical organizational objectives—specifically, the active management of the firm's information environment when traditional channels are compromised. By employing a natural experiment, we provide systematic causal evidence that this behavior is a strategic response to environmental friction. In doing so, we conceptualize executive social media engagement not merely as a communication preference, but as a compensatory mechanism. Executives leverage these platforms to supplement the restricted traditional media landscape, restoring information flow and influencing stakeholder perceptions when independent coverage becomes less accessible.

Second, our study specifically contributes to research on executive communication and impression management, which examines how strategic leaders utilize various communication channels to interact with stakeholders and shape their perceptions (e.g., Westphal et al. 2012, Chen et al. 2015, Whittington et al. 2016, Guo et al. 2021). Prior research predominantly emphasizes traditional communication channels such as earnings conference calls and traditional media coverage. We expand this literature by highlighting the distinct dual nature of the modern information environment. First, we demonstrate that social media serves as a unique channel characterized by high autonomy and flexibility, allowing executives to bypass formal constraints and reach a broader, more heterogeneous audience than traditional channels provide. Second, and crucially, we identify the role of traditional media as a vital cross-validation mechanism. We show that independent coverage acts as a disciplinary constraint that deters impression management on these informal platforms. By documenting that executives exploit the flexibility of social media to selective information when this cross-validation mechanism is removed, our study underscores the importance of analyzing corporate communication as an interdependent ecosystem, where the reliability of new media depends critically on the accessibility of traditional media.

Third, our study advances research on information economics in strategy (e.g., Narayanan et al. 2000, Flammer et al. 2021). This body of literature generally emphasizes the value of voluntary disclosure in reducing information asymmetry. However, unlike mandatory reporting governed by strict regulations (e.g., SEC rules), voluntary disclosure allows for significant managerial discretion. We contribute to this literature by identifying a critical boundary condition for the efficacy of voluntary disclosure. By documenting that executives intensify impression management through selectively suppressing negative information when traditional media accessibility declines, we show that the informational value of voluntary disclosure is not intrinsic. Rather, it is contingent upon the existence of an independent cross-validation channel. Our findings suggest that without the monitoring pressure provided by traditional media, the benefits of voluntary disclosure in reducing information asymmetry are effectively neutralized. Thus, we highlight that the credibility of voluntarily shared information depends on the broader information ecosystem in which it is embedded.

Fourth, our findings advance literature examining the impact of media on firms (Pollock and Rindova 2003, Westphal and Deephouse 2011, Bednar et al. 2013, Lovelace et al. 2022). This body of work has traditionally examined the impact of media in isolation. We challenge this single-channel perspective by highlighting the interdependence of the modern information environment. By documenting how executives increase and selectively shape their activity to social platforms precisely when traditional access declines, we demonstrate that these channels operate as a dynamic portfolio. Thus, research examining the influence of media on firms must increasingly account for firms' strategic adaptation across alternative channels. In short, our study introduces the critical insight that the media ecosystem is interdependent: a

shock to one channel triggers compensatory behaviors in another, fundamentally altering corporate information strategies and market outcomes.

## **7.2. Practical Implications**

In the current information era, traditional media—both local and national—is becoming increasingly less influential. Between 2000 and 2022, the circulation of U.S. daily newspapers declined by 64% (Pew Research Center 2023). Firms and executives must adapt strategically to this changing media landscape. Although our empirical setting specifically concerns local newspaper digital paywall adoption, the insights from our findings are relevant to broader contexts of declining traditional media reach. Specifically, our study provides actionable implications for firm executives and stakeholders navigating these changes.

First, executives should consider social media as an important strategic tool to supplement traditional media channels, especially as these traditional channels diminish in influence and reach. Second, firm stakeholders should recognize the value of acquiring information through informal channels such as social media. However, stakeholders should not fully abandon traditional media channels, as these continue to play an essential verification role, helping them detect potential biases or selective information dissemination on social media.

## **7.3. Limitations and Future Directions**

Despite its strengths, this study has several limitations. First, because of data constraints, we were unable to distinguish between executive social media accounts personally controlled by executives and those managed by firm communication personnel. Prior research indicates that firms typically rely on dedicated media relations staff to manage corporate social media accounts (Flam et al. 2025). Thus, it is plausible that some senior executives' social media accounts are similarly managed by firm employees. Although the management of the accounts does not fundamentally undermine our conclusions, understanding who controls these accounts would enhance our comprehension of executives' strategic engagement on social media. Future research could use surveys to determine who controls executives' social media accounts. With information about account control, subsequent studies could further investigate whether executives' social media engagement is primarily driven by firm-level strategy or executives' personal initiatives. If personal initiatives predominate, important follow-up questions arise: What motivates executives to actively engage on social media—career advancement concerns, reputation management, or other incentives? Exploring these questions would significantly enhance our understanding of the motivations underpinning executive social media behavior, thus enabling more precise analysis of their actions and the associated organizational outcomes.

Second, we collected executive social media posting data exclusively from the X platform. However, executives typically engage with multiple social media platforms simultaneously, including

LinkedIn, Facebook, and others. LinkedIn, in particular, has been widely adopted among executives. Although we expect executives' posting behaviors to generally align across platforms, future research could empirically verify this assumption and explore potential discrepancies in specific contexts. For instance, do executives strategically adjust the content, tone, or frequency of posts related to crisis management based on the distinct user demographics of each platform? Addressing these questions would enrich our understanding of executives' social media strategies and their impression management tactics across different communication channels.

#### 7.4. Conclusion

In summary, executives increase social media activity to compensate for reduced traditional media access, yet simultaneously intensify impression management by suppressing negative news. Consequently, the beneficial effect of executive posts on information asymmetry is *neutralized* once traditional media accessibility declines. We further find that the increase in posting is concentrated among firms with high pre-paywall coverage and those serving retail investors and attention-sensitive consumers, while intensified impression management is driven by firms previously facing negative sentiment. Finally, we show that this strategy is effective in regaining visibility. Overall, this study contributes to the literature on leadership and governance, information economics, and media influence.

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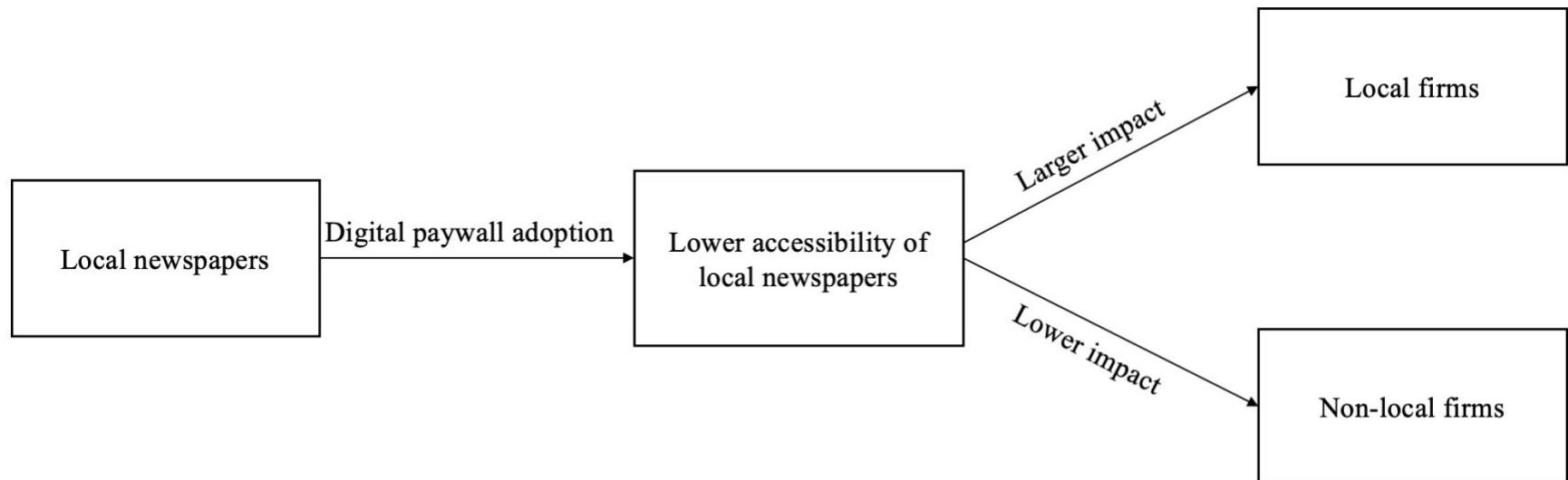
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**Figure 1.** Example of Digital Paywall

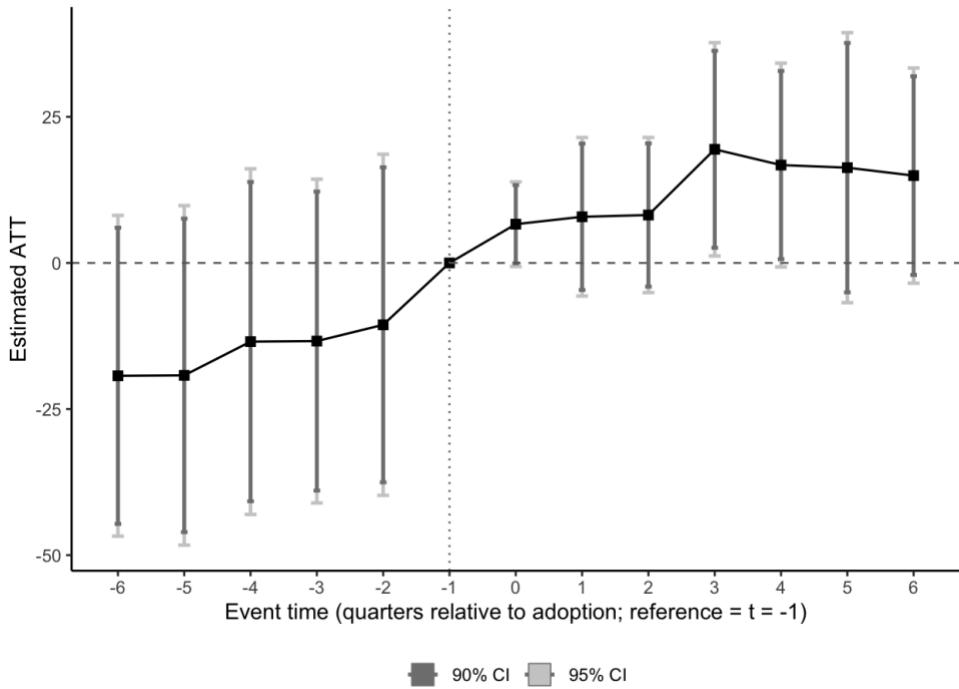


**Figure 2.** The Logic of our Identification Strategy

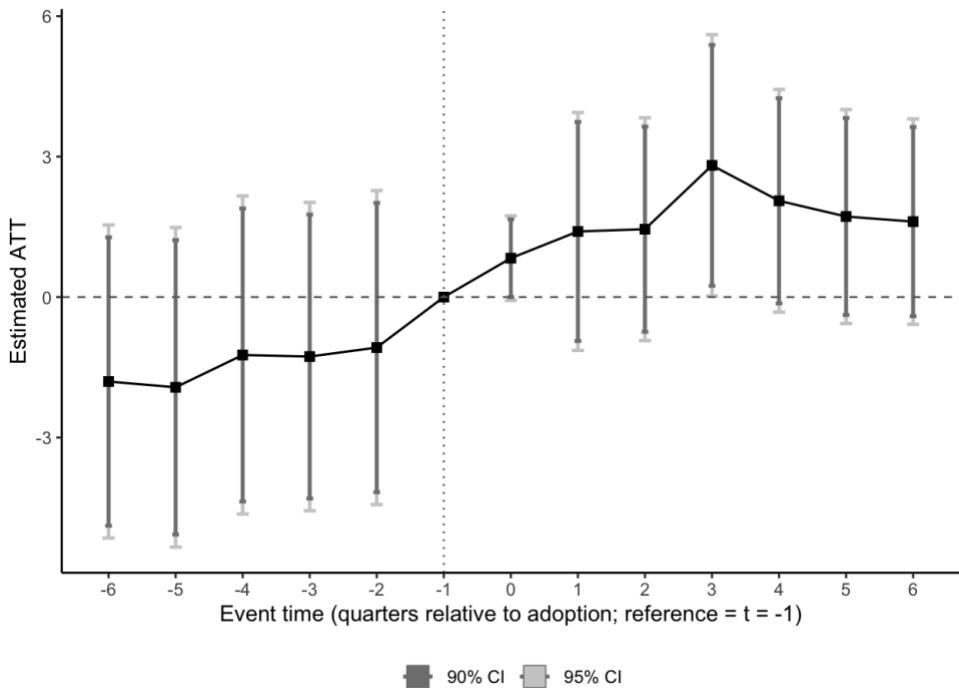


**Figure 3.** Dynamic Effects of Local Newspaper Digital Paywall Adoption on Executive Social Media Posting

(a) Aggregate posting frequency ( $Post\_nb$ )



(b) Average posts per executive ( $Post\_avg$ )



*Notes.* Estimates are based on the CS estimator using the never-treated group as the control. The reference period is one quarter prior to local newspaper paywall adoption ( $t = -1$ ). Vertical bars represent 90% and 95% confidence intervals. ATT = Average treatment effect on the treated.

**Table 1.** Local Newspapers and Their Digital Paywall Adoption Dates

City	Local newspaper	Paywall date
Boston	Boston Globe	2011-10-11
Los Angeles	Los Angeles Times	2012-03-05
Phoenix	Arizona Republic	2012-09-01
Chicago	Chicago Tribune	2012-11-01
Houston	Houston Chronicle	2012-11-19
Miami	Miami Herald	2012-12-19
San Francisco	San Francisco Chronicle	2013-04-01
Denver	Denver Post	2013-12-02

**Table 2.** Descriptive Statistics and Correlations (H1)

Variable	Mean	Std	1	2	3	4	5	6	7	8	9	10	11
Post_nb	19.79	114.90	1.00										
Post_avg	2.35	13.86	0.95	1.00									
Treatment1	0.20	0.40	0.11	0.10	1.00								
Size	8.22	1.82	0.06	0.02	-0.02	1.00							
Comm_executive	1.72	1.49	0.06	0.02	0.02	0.43	1.00						
MTB	3.50	4.88	0.04	0.04	0.03	-0.08	0.03	1.00					
National media cov.	4.55	0.92	0.12	0.08	0.01	0.70	0.42	0.07	1.00				
Analyst cov.	2.34	0.71	0.09	0.06	0.05	0.53	0.32	0.11	0.56	1.00			
Shareholder	1.71	1.56	0.00	-0.03	-0.08	0.62	0.32	-0.02	0.45	0.27	1.00		
InstOwn percentage	0.78	0.22	0.00	0.01	0.07	-0.08	-0.03	0.03	-0.07	0.13	-0.16	1.00	
Firm posts	2.75	2.70	0.13	0.10	0.12	0.15	0.17	0.11	0.31	0.24	0.14	0.06	1.00

**Table 3.** Influence of Local Newspaper Paywall Adoption on Executives' Social Media Posting Activities

	Panel A. Primary estimates – CS estimator			
	Post_nb (1)	Post_avg (2)	Post_nb (3)	Post_avg (4)
Overall ATT	12.8803** (5.6744)	1.6978** (0.8622)	12.1752 ** (5.7995)	1.6465 * (0.8546)
Control group	Never treated			Not yet treated

Notes. Estimated using the Callaway–Sant'Anna regression-adjustment (Reg-CS) estimator with the indicated control group.

The numbers in parentheses are standard errors, clustered at the firm level. ATT = Average treatment effect on the treated.

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .

#### Panel B. Descriptive associations – two-way fixed effects (TWFE)

	Post_nb (1)	Post_avg (2)
Treatment1	19.3679** (8.2374)	2.1813** (1.0606)
Size	0.3283 (6.0746)	0.2465 (0.8179)
Comm_executive	0.4269 (2.9309)	-0.1770 (0.3254)
MTB	0.1522 (0.3399)	0.0093 (0.0378)
National media cov.	2.6048 (1.8967)	0.4660 (0.3181)
Analyst cov.	-2.7789 (2.5562)	-0.4897 (0.4510)
Shareholder	-0.8261 (2.1498)	-0.1604 (0.3676)
InstOwn percentage	6.5725 (5.0841)	0.9242 (0.7429)
Firm posts	1.0078 (0.6496)	0.0850 (0.0733)
Year-quarter FE	Yes	Yes
Firm FE	Yes	Yes
Observations	18336	18336
Adjusted $R^2$	0.617	0.599

Notes. The numbers in parentheses are standard errors, clustered at the firm level.

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .

**Table 4.** Influence of Local Newspaper Paywall Adoption on Executives' Impression Management on Social Media

	Earning_post_dum	
	(1)	(2)
Misest	-0.0077*** (0.0017)	-0.0051*** (0.0018)
Treatment1		0.0151* (0.0081)
Misest x Treatment1		-0.0135** (0.0066)
Size	-0.0031 (0.0056)	-0.0035 (0.0056)
Comm_executive	0.0025 (0.0024)	0.0025 (0.0024)
MTB	0.0002 (0.0003)	0.0002 (0.0003)
National media cov.	0.0024 (0.0030)	0.0024 (0.0030)
Analyst cov.	-0.0014 (0.0038)	-0.0011 (0.0038)
Shareholder	0.0011 (0.0014)	0.0012 (0.0014)
InstOwn percentage	0.0043 (0.0083)	0.0048 (0.0083)
Firm posts	-0.0002 (0.0007)	-0.0002 (0.0007)
Year-quarter FE	Yes	Yes
Firm FE	Yes	Yes
Observations	18086	18086
Adjusted $R^2$	0.277	0.278

*Notes.* The numbers in parentheses are standard errors, clustered at the firm level.

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .

**Table 5.** Influence of Executives' Social Media Posts on Information Asymmetry

	Spread	
	(1)	(2)
Posts before market opens	-0.0009*	
	(0.0005)	
Posts before market opens (ln)		-0.0023*
		(0.0012)
Treatment1 x Posts before market opens	0.0015**	
	(0.0007)	
Treatment1 x Posts before market opens (ln)		0.0035*
		(0.0018)
Treatment1	-0.0014	-0.0014
	(0.0023)	(0.0023)
Size	-0.0221***	-0.0221***
	(0.0039)	(0.0039)
Comm_executive	0.0010	0.0010
	(0.0008)	(0.0008)
MTB	-0.0005***	-0.0005***
	(0.0002)	(0.0002)
National media cov.	-0.0012	-0.0012
	(0.0012)	(0.0012)
Analyst cov.	-0.0081***	-0.0081***
	(0.0021)	(0.0021)
Shareholder	0.0003	0.0003
	(0.0011)	(0.0011)
InstOwn percentage	-0.0316***	-0.0316***
	(0.0062)	(0.0062)
Firm posts	-0.0006	-0.0006
	(0.0005)	(0.0005)
Posts during market hours	-0.0006	-0.0005
	(0.0011)	(0.0011)
Date FE	Yes	Yes
Firm FE	Yes	Yes
Observations	1161600	1161600
Adjusted $R^2$	0.624	0.624

Notes. The numbers in parentheses are standard errors, clustered at the firm level.

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .

**Table 6.** Cross-Sectional Tests: High vs. Low Retail Trading and Industries with Discretionary Consumer Visits

Subsample	Post_nb		Post_avg		Post_nb		Post_avg	
	Retail trading proportion				Discretionary consumer visits			
	High (1)	Low (2)	High (3)	Low (4)	With (5)	Without (6)	With (7)	Without (8)
Overall ATT	19.3071** (9.3565)	6.0625 (8.8042)	2.8015* (1.6357)	0.774 (1.1233)	21.9558** (10.9815)	6.9067 (6.395)	3.207* (1.9036)	0.5846 (0.8001)
Observations	8,384	8,578	8,384	8,578	8,619	9,403	8,619	9,403

*Notes.* Estimated using the Callaway–Sant’Anna regression-adjustment (Reg-CS) estimator with the never-treated group as control. The numbers in parentheses are standard errors, clustered at the firm level. ATT = Average treatment effect on the treated.

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .

**Table 7.** Cross-Sectional Tests: Pre-Paywall Local Newspaper Coverage and Sentiment  
 Panel A. High vs. low pre-paywall local newspaper coverage and increased social media activity

Subsample	Post_nb				Post_avg	
	Pre-paywall local newspaper coverage					
	High (1)	Low (2)	High (3)	Low (4)		
Overall ATT	14.9542*	11.0937	1.9009*	1.5245		
	(8.9368)	(8.2727)	(1.0848)	(1.688)		
Observations	14,762	15,438	14,762	15,438		

Notes. Estimated using the Callaway–Sant’Anna regression-adjustment (Reg-CS) estimator with the never-treated group as control.

The numbers in parentheses are standard errors, clustered at the firm level. ATT = Average treatment effect on the treated.

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .

Panel B. Pre-paywall local newspaper sentiment and intensified impression management

	Earning_post_dum			
	Pre-paywall negative coverage proportion			
	Low		High	
	(1)	(2)	(3)	(4)
Misest	-0.0071*** (0.0018)	-0.0071*** (0.0019)	-0.0078*** (0.0020)	-0.0054*** (0.0019)
Treatment1		0.0011 (0.0102)		0.0341** (0.0166)
Misest x Treatment1		0.0004 (0.0076)		-0.0279* (0.0153)
Size	-0.0010 (0.0062)	-0.0010 (0.0061)	-0.0038 (0.0058)	-0.0042 (0.0058)
Comm_executive	0.0057** (0.0024)	0.0057** (0.0024)	0.0024 (0.0028)	0.0024 (0.0028)
MTB	0.0004 (0.0003)	0.0004 (0.0003)	0.0004 (0.0004)	0.0004 (0.0004)
National media cov.	0.0025 (0.0028)	0.0025 (0.0028)	0.0019 (0.0038)	0.0022 (0.0036)
Analyst cov.	-0.0020 (0.0034)	-0.0020 (0.0034)	-0.0002 (0.0046)	-0.0001 (0.0045)
Shareholder	0.0009 (0.0014)	0.0009 (0.0014)	0.0007 (0.0018)	0.0006 (0.0018)
InstOwn percentage	0.0082 (0.0094)	0.0082 (0.0094)	0.0026 (0.0097)	0.0041 (0.0095)
Firm posts	0.0002 (0.0007)	0.0002 (0.0007)	-0.0002 (0.0007)	-0.0002 (0.0007)
Year-quarter FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Observations	14245	14245	14072	14072
Adjusted R <sup>2</sup>	0.288	0.288	0.217	0.219

Notes. The numbers in parentheses are standard errors, clustered at the firm level.

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .

**Table 8.** Influence of Paywall Adoption and Posting Activity on Attention to Executive Social Media Posts

	Like_avg (1)	Retweet_avg (2)	Reply_avg (3)	Quote_avg (4)
Treatment1	-4.8717*** (1.1770)	-2.3617*** (0.7629)	-2.9180*** (0.8545)	-2.9180*** (0.8545)
Post_nb (last quarter)	-0.0053** (0.0021)	-0.0022** (0.0009)	-0.0036* (0.0018)	-0.0036* (0.0018)
Treatment1 x Post_nb (last quarter)	0.0072*** (0.0024)	0.0028* (0.0015)	0.0047*** (0.0016)	0.0047*** (0.0016)
Size	0.9713*** (0.3648)	1.4418*** (0.2640)	1.5270*** (0.3318)	1.5270*** (0.3318)
Comm_executive	0.1595 (0.1821)	0.3394* (0.1833)	0.0621 (0.1503)	0.0621 (0.1503)
MTB	-0.0053 (0.0131)	-0.0009 (0.0175)	-0.0124 (0.0165)	-0.0124 (0.0165)
National media cov.	0.5171** (0.2334)	0.5701** (0.2238)	0.8537*** (0.2272)	0.8537*** (0.2272)
Analyst cov.	0.2197 (0.2418)	0.1721 (0.3424)	0.4741 (0.4309)	0.4741 (0.4309)
Shareholder	-0.5204 (1.4013)	-2.1981 (1.5624)	0.4781 (0.8982)	0.4781 (0.8982)
InstOwn percentage	0.3574 (0.8695)	0.4811 (0.9050)	1.6061 (1.0604)	1.6061 (1.0604)
Firm posts	-0.1806*** (0.0575)	-0.2190*** (0.0784)	-0.1518 (0.1105)	-0.1518 (0.1105)
Year-quarter FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Observations	3922	3686	3679	3679
Adjusted R <sup>2</sup>	0.971	0.961	0.974	0.974

Notes. Estimates are from Poisson Pseudo-Maximum Likelihood (PPML) models with firm and year-quarter fixed effects. The numbers in parentheses are standard errors, clustered at the firm level.

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .

## Appendix A. Descriptive Statistics and Correlations of H2 and H3 Samples

**Table A1.** Sample H2: Descriptive statistics and correlations

Variable	Mean	Std	1	2	3	4	5	6	7	8	9	10	11
Earning_post_dum	0.02	0.13	1.00										
Treatment1	0.20	0.40	0.07	1.00									
Misest	0.27	0.44	-0.04	0.00	1.00								
Size	8.23	1.82	0.04	-0.03	-0.02	1.00							
Comm_executive	1.74	1.49	0.05	0.01	-0.05	0.43	1.00						
MTB	3.52	4.92	0.04	0.02	-0.04	-0.08	0.03	1.00					
National media cov.	4.56	0.91	0.09	0.00	-0.07	0.70	0.41	0.06	1.00				
Analyst cov.	2.37	0.68	0.07	0.04	-0.09	0.53	0.31	0.11	0.56	1.00			
Shareholder	1.72	1.57	-0.01	-0.08	-0.03	0.62	0.32	-0.02	0.45	0.27	1.00		
InstOwn percentage	0.79	0.22	0.01	0.06	-0.03	-0.10	-0.05	0.03	-0.09	0.10	-0.18	1.00	
Firm posts	2.79	2.70	0.10	0.11	-0.03	0.15	0.16	0.11	0.31	0.23	0.14	0.05	1.00

**Table A2.** Sample H3: Descriptive statistics and correlations

Variable	Mean	Std	1	2	3	4	5	6	7	8	9	10	11	12	13
Spread	0.06	0.07	1.00												
Treatment1	0.19	0.40	-0.03	1.00											
Posts before market opens	0.12	0.64	-0.05	0.10	1.00										
Posts before market opens (ln)	0.06	0.27	-0.05	0.11	0.98	1.00									
Size	8.22	1.82	-0.42	-0.03	0.06	0.06	1.00								
Comm_executive	1.72	1.49	-0.21	0.01	0.06	0.06	0.43	1.00							
MTB	3.51	4.89	-0.10	0.03	0.05	0.06	-0.08	0.03	1.00						
National media cov.	4.55	0.92	-0.30	0.01	0.12	0.13	0.70	0.42	0.07	1.00					
Analyst cov.	2.34	0.72	-0.38	0.04	0.08	0.08	0.53	0.32	0.11	0.56	1.00				
Shareholder	1.71	1.56	-0.22	-0.08	0.01	0.01	0.61	0.32	-0.02	0.45	0.27	1.00			
InstOwn percentage	0.78	0.22	-0.16	0.06	0.00	0.01	-0.07	-0.03	0.03	-0.07	0.13	-0.15	1.00		
Firm posts	0.71	1.04	-0.11	0.11	0.14	0.15	0.14	0.16	0.10	0.30	0.23	0.13	0.04	1.00	
Posts during market hours	0.04	0.21	-0.05	0.11	0.60	0.60	0.06	0.05	0.04	0.12	0.08	0.02	0.01	0.15	1.00

## Appendix B: Robustness Checks

**Table B1.** Robustness of Main Estimates Using Stacked Difference-in-Differences

	Post_nb (1)	Post_avg (2)	Post_nb (ln) (3)	Post_avg (ln) (4)
Treatment1	0.5350** (0.2721)	0.6109* (0.3170)	0.1402* (0.0747)	0.1150*** (0.0443)
Size	-0.1102 (0.3895)	-0.2832 (0.3394)	0.0137 (0.1731)	0.0116 (0.0958)
Comm_executive	0.0054 (0.0780)	0.0040 (0.0796)	-0.0322 (0.0297)	-0.0303 (0.0191)
MTB	-0.0074 (0.0121)	-0.0106 (0.0126)	-0.0057 (0.0040)	-0.0031 (0.0022)
National media cov.	0.1160 (0.0785)	0.1164 (0.0815)	0.0458 (0.0355)	0.0237 (0.0196)
Analyst cov.	-0.2024 (0.1414)	-0.2060 (0.1355)	-0.0384 (0.0404)	-0.0151 (0.0223)
Shareholder	0.0439 (0.2196)	0.0075 (0.2479)	-0.0336 (0.0649)	-0.0323 (0.0367)
InstOwn percentage	0.0040 (0.3086)	-0.0293 (0.2905)	0.1070 (0.1264)	0.0574 (0.0653)
Firm posts	-0.0021 (0.0399)	0.0078 (0.0333)	0.0054 (0.0105)	0.0023 (0.0057)
Year-quarter × Stack FE	Yes	Yes	Yes	Yes
Firm × Stack FE	Yes	Yes	Yes	Yes
Estimation Model	PPML	PPML	OLS	OLS
Observations	20080	20080	43487	43487
Adjusted $R^2$			0.706	0.703

*Notes.* Columns 1 and 2 are estimated using Poisson Pseudo-Maximum Likelihood (PPML). The sample size in these columns is smaller because the fixed-effects PPML estimator drops firm-stack units that exhibit no within-group variation in posting activity due to perfect separation. The numbers in parentheses are standard errors, clustered at the firm level.

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .

**Table B2.** Robustness of Impression Management Results to Alternative Dependent Variables

	Earning_post_nb	Earning_executive_nb	Earning_post_nb (ln)	Earning_executive_nb (ln)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Misest	-0.0133*** (0.0039)	-0.0048 (0.0030)	-0.0085*** (0.0019)	-0.0049*** (0.0019)	-0.0069*** (0.0017)	-0.0036** (0.0016)	-0.0057*** (0.0013)	-0.0035*** (0.0013)				
Treatment1		0.0535 (0.0330)		0.0212** (0.0095)		0.0184* (0.0095)			0.0126** (0.0060)			
Misest:treatment1		-0.0430** (0.0214)		-0.0180** (0.0075)		-0.0166** (0.0071)			-0.0109** (0.0048)			
Size	0.0411 (0.0517)	0.0394 (0.0507)	0.0024 (0.0101)	0.0018 (0.0099)	0.0039 (0.0108)	0.0033 (0.0106)	-0.0002 (0.0053)	-0.0006 (0.0052)				
Comm_executive	0.0117 (0.0130)	0.0117 (0.0130)	0.0045 (0.0031)	0.0045 (0.0031)	0.0031 (0.0035)	0.0031 (0.0034)	0.0025 (0.0019)	0.0025 (0.0019)				
MTB	0.0002 (0.0007)	0.0002 (0.0007)	0.0002 (0.0003)	0.0002 (0.0003)	0.0002 (0.0003)	0.0002 (0.0003)	0.0001 (0.0002)	0.0002 (0.0002)				
National media cov.	-0.0072 (0.0084)	-0.0070 (0.0084)	0.0020 (0.0031)	0.0021 (0.0031)	0.0004 (0.0029)	0.0006 (0.0029)	0.0014 (0.0021)	0.0015 (0.0021)				
Analyst cov.	-0.0057 (0.0095)	-0.0046 (0.0091)	-0.0034 (0.0042)	-0.0030 (0.0041)	-0.0019 (0.0039)	-0.0015 (0.0039)	-0.0017 (0.0028)	-0.0014 (0.0027)				
Shareholder	0.0040 (0.0035)	0.0041 (0.0037)	0.0017 (0.0017)	0.0017 (0.0017)	0.0014 (0.0014)	0.0015 (0.0014)	0.0010 (0.0011)	0.0010 (0.0011)				
InstOwn percentage	-0.0023 (0.0196)	-0.0006 (0.0190)	0.0039 (0.0093)	0.0046 (0.0092)	0.0035 (0.0086)	0.0041 (0.0085)	0.0028 (0.0061)	0.0032 (0.0060)				
Firm posts	-0.0017 (0.0013)	-0.0017 (0.0013)	-0.0006 (0.0008)	-0.0006 (0.0008)	-0.0006 (0.0006)	-0.0006 (0.0006)	-0.0003 (0.0005)	-0.0003 (0.0005)				
Year-quarter FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	18086	18086	18086	18086	18086	18086	18086	18086	18086	18086	18086	18086
Adjusted $R^2$	0.672	0.672	0.358	0.359	0.457	0.458	0.332	0.333				

*Notes.* This table replicates the analysis in Table 4 using alternative functional forms for the dependent variable. Columns 1–4 use the raw count of earnings-related posts (*earning\_post\_nb*) and the number of distinct executives posting (*earning\_executive\_nb*). Columns 5–8 use the natural logarithm of one plus these counts ( $\ln(1+Y)$ ). The numbers in parentheses are standard errors, clustered at the firm level.

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .

**Table B3.** Robustness of Main Estimates Controlling for Regional Digital Infrastructure (3G Coverage)

	Post_nb (1)	Post_avg (2)	Post_nb (3)	Post_avg (4)
Overall ATT	13.1867** (5.6835)	1.7017** (0.8517)	12.5001** (5.7891)	1.6554* (0.8543)
Control group	Never Treated			Not yet treated

*Notes.* The specification mirrors the baseline model in Table 3 but includes 3G network coverage as an additional time-varying covariate to control for regional digital infrastructure development.

Estimated using the Callaway–Sant’Anna regression-adjustment (Reg-CS) estimator with the indicated control group. The numbers in parentheses are standard errors, clustered at the firm level.

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .