

## **Plural form business strategy and financial reporting quality in hospitality firms**

### **Abstract**

This paper analyzes how the plural form business strategy (i.e., simultaneously pursuing a fee-oriented and an equity-based strategy) impacts financial reporting quality of international hospitality firms. Drawing on the agency theory perspective, we analyze a sample of global hospitality companies over 2010-2019 using OLS, entropy balancing, and Heckman two-stage estimations. Our results suggest that greater use of the plural form is positively associated with higher earnings management (i.e., lower financial reporting quality). The plural form induces financial reporting complexity, which increases the likelihood of earnings management. However, the presence of large shareholders, aiming at reducing earnings management practices for reputation purposes, offsets this effect. This study identifies a specific feature of the hospitality industry, namely the pursuit of the plural form business strategy, as triggering more complexity, which results in detrimental lower reporting quality for investors.

**Keywords:** Business strategies, Financial reporting complexity, Hospitality, Ownership structure, Plural form.

# Plural form business strategy and financial reporting quality in hospitality firms

## 1. Introduction

The hospitality industry has gradually moved away from its asset-heavy origins and is shifting towards asset-light and/or fee-based strategies (Demir et al., 2019; Y. Li & Singal, 2019; Poretti & Heo, 2022; Sohn et al., 2013). The mix of company-owned units and fee-based (franchise/license/management) contracts within the same parent enterprise results in a plural form strategy (Brookes & Roper, 2012). While the plural form business strategy is not novel (Bradach & Eccles, 1989), the co-existence of multiple business forms has only recently drawn the attention of hospitality researchers and the literature on the topic is scant (Y. Li & Singal, 2019; Märklin & Bianchi, 2021; Zhang et al., 2019).<sup>1</sup> This study analyses how the pursuit of the plural form is associated with financial reporting quality, the latter being crucial for investors to assess corporate performance and make informed decisions.

Earnings quality may be impaired by earnings management (EM).<sup>2</sup> EM entails the “use (of) judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers” (Healy & Wahlen, 1999, p. 368). Research has progressively uncovered different types of EM practices. The most often examined pillar of EM is accrual-based, meaning it involves the use of discretionary accruals (Dechow et al., 1995). Real EM implies the adjustment of the underlying real economic activities (e.g., reduction in R&D investments, sales manipulation, etc.), which has a direct effect on cash flows, and is more difficult to detect (Cohen & Zarowin,

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<sup>1</sup> While various studies document the benefits associated with the pursuit of the plural form (Choi et al., 2018; Dogru et al., 2020; Gim & Jang, 2019; Seo et al., 2021; Sohn et al., 2013, 2014), other studies provide evidence of some challenges the plural form faces (e.g., Blal & Bianchi, 2019; Kosová et al., 2013; Märklin & Bianchi, 2021; Poretti et al., 2023).

<sup>2</sup> Although EM shares a lot with earnings quality, the two concepts slightly differ: “highly managed earnings have low quality. However, the lack of earnings management is not sufficient to guarantee high-quality earnings [...]” (Lo, 2008, p. 351).

2008). Classification shifting is another EM tool where managers deliberately misclassify some items within the income statement (McVay, 2006).<sup>3</sup> EM is legitimate if practiced within the boundaries of accounting standards and their inherent subjectivity. However, as markets often perceive EM as an undesirable accounting practice – sometimes even as fraud –, it has attracted substantial media attention in recent years (e.g., Boston Chicken, Cendant Corporation, Krispy Kreme, Luckin Coffee, Patisserie Valerie).

Present in both public and private hospitality firms (Esteban & Devesa, 2011; Gim et al., 2019; Parte-Esteban & Ferrer García, 2014), EM practices are associated with detrimental effects such as a lower valuation of hospitality firms (Chen et al., 2023). In this context, investigating whether the ongoing plural form leads to more EM in international hospitality firms is an important topic of inquiry. In our study, we build on Gim et al. (2019), one of the earliest empirical studies on the topic, by widening the geographical scope, accounting for different EM proxies, and using a different plural form measure. More recently, Poretti et al. (2023) show that the plural form is associated with higher audit fees (billed by external auditors), which they attribute to more financial reporting complexity. Whether such higher financial reporting complexity translates into lower financial reporting quality remains an open empirical question.

Drawing on the agency theory framework, we posit that the plural form is positively associated with EM and that ownership concentration mitigates this relationship. First, when not fully-owned, hospitality firms experience additional contractual arrangements with members of their network under management and franchise agreements. In such agency relationships, information asymmetry and divergent contractual interests may provide managers with more motivation and incentives to distort financial information disclosed (i.e., engage in EM practices) (Turner & Guilding, 2011). Higher EM may also result from

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<sup>3</sup> Other perception management techniques than EM exist (see Black et al. (2017) for an example).

opportunities the plural form induces through higher financial reporting complexity (Poretti et al., 2023). Second, blockholders in firms with concentrated ownership might play a monitoring role to protect the firm's reputation. Indeed, controlling shareholders have strong incentives (and the potential ability) to monitor managers, thereby mitigating agency conflicts (Grossman & Hart, 1988). Various studies document that controlling shareholders, either individuals, families, or institutional investors, are related to more effective monitoring, and thus to a lower EM propensity by top managers (e.g., Cascino et al., 2010; Hartzell & Starks, 2003; Velury & Jenkins, 2006). As such, one might expect large shareholders to mitigate the negative impact of the plural form on financial reporting quality.

Using a sample of global publicly-listed hospitality firms from 2010 to 2019 (499 firm-year observations), we document that the extent of the plural form is negatively associated with financial reporting quality (which we proxy with accrual-based EM). Further, we find that this relation is mitigated by high ownership concentration, which indistinctly holds for institutional (e.g., hedge funds, mutual funds, pension funds, and insurance companies) and non-institutional (e.g., families or individuals) blockholders. Our results are robust to alternative EM proxies (i.e., the propensity to meet or beat earnings benchmarks) and estimation techniques (Heckman two-stage model and entropy balancing).

## **2. Literature review and research hypotheses**

### *2.1. Earnings management in the hospitality industry*

There are two streams of literature on EM practices within the hospitality industry. The first – rather scant – stream focuses on the outcomes of EM. Upneja et al. (2008) conclude that there is a (striking) positive association between EM and increases in stock prices for a sample of U.S. restaurants. Still in the U.S., Chen et al. (2023) show that the extent of abnormal discretionary accruals is detrimental to firm value.

The second stream outlines EM practices and examines potential determinants. Parte-Esteban and Such Devesa (2011) and Parte-Esteban and Ferrer García (2014) highlight that several attributes of hospitality firms (such as internationalization, audit by a Big Four firm, or size) have a positive impact on earnings quality. Conversely, family ownership and ownership concentration, financial losses, volatility of sales and cash flows exhibit a negative association with earnings quality. Costa and Motta (2021) report that while EM is negatively associated with firm size, it has a positive association with leverage. Turner and Guilding (2011) survey hotels managers and owners to study their motivations for EM. The study finds that “the idiosyncratic aspect of hotel governance [...]” (2011, p. 358) – i.e., management contracts – is the primary motivation to engage in EM. Gim et al. (2019) show that franchised restaurants are more prone to engage in accrual-based EM compared to their non-franchised counterparts.

These studies focus on subsectors of the hospitality industry within a country. We take a broader view of the EM question in the hospitality sector to increase the generalizability of our results. These studies also highlight the fundamental impact hospitality organizations seem to be playing out these days. Against this backdrop, it is important to conduct a “more detailed examination [...] that focuses on the challenging dimensions of the hotel owner-operator relationship” the plural form introduces (Turner & Guilding, 2011, p. 371).

## *2.2. Plural form and earnings management in the hospitality industry*

In their seminal paper, Jensen and Meckling (1976) develop agency theory by exploring contracting relationships between principals (shareholders) and agents (managers). Managers are engaged to act on behalf of the shareholders but the interests of both parties are likely to diverge due to different utility functions. Potential conflicts arising between both parties

therefore impose incurring agency costs (i.e., monitoring costs, bonding costs,<sup>4</sup> and residual loss) to bridge information asymmetries and limit opportunistic actions (Ang et al., 2000). The agency relationship the power delegation from shareholders to the management team creates has been extensively explored in the hospitality and tourism context (e.g., Y. Li & Singal, 2022) and is a shared feature by large companies in the sector.

Although agency theory was originally confined to the divergence of interests between managers and shareholders (Jensen & Meckling, 1976), a variety of other contracts are concerned (Hill & Jones, 1992). Indeed, Ross – one of the pioneers in the development of agency theory – argues that “essentially all contractual arrangements, as between employer and employee or the state and the governed, for example, contain important elements of agency” (1973, p. 134). It is therefore not surprising that agency theory is one of the most commonly used theoretical underpinnings in studies on asset-light and/or fee-oriented strategies (e.g., Koh et al., 2018). This is so as “hotel asset-light strategies, in the form of franchises and hotel management contracts, create a typical principal-agent relationship and hence agency problems” (K. M. Li et al., 2024, p. 2). The plural form implies that a parent company enters into a mixture of contracts with actors of different natures with possibly diverging goals,<sup>5</sup> which results in complex agency structures with incomplete information (Märklin & Bianchi, 2021). The plural arrangement is thus likely to provide additional motivation to hospitality managers to engage in EM<sup>6</sup> compared to the pure form comprising only owned assets.

In franchise contracts, information asymmetry may give rise to EM on both sides of the relationship (Combs et al., 2011). The potential misrepresentation of profits and costs from

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<sup>4</sup> An illustration of bonding costs is the independent audit of financial statements to testify for their accuracy (Jensen & Meckling, 1976).

<sup>5</sup> Although having different risk preferences and potentially pursuing diverging goals, parties involved in the plural form business strategy are interdependent and cooperative, two requirements for a relevant application of agency theory (Lassar & Kerr, 1996).

<sup>6</sup> Healy and Whalen (1999) identify three main motivations for EM: capital market motivations, regulation motivations and contractual motivations. We argue that the plural form is likely to provide EM incentives related to the last category.

franchisees is the main reason why franchisors base their fees on revenues in most cases (Kosová et al., 2013). Consequently, Combs et al. (2011), among others, warn that franchisees may misreport their financial performance. On the franchisors' side, past literature develops the argument that, in presence of dedicated assets or relationships, a part of franchisees' return may be opportunistically expropriated (i.e., the 'holdup' effect). Gim et al. (2019) contend that "many franchisors have been accused of providing misleading or even fraudulent information to prospective franchisees in order to attract more franchise income [...]" (p. 72). In the U.S., where publicly-listed companies are required to follow the Generally Accepted Accounting Principles (GAAP),<sup>7</sup> some franchisors disclose 'Item 19' that relates to financial performance representation in their franchise disclosure document to prospective franchisees. According to Emerson (2021, p. 234), "this pressure might, in fact, increase the level of misrepresentation in franchising by creating an incentive to give the illusion of higher earnings." 'Item 21' of the franchise disclosure document further requires the provision of some financial statements to reduce the information imbalance between the franchisor and prospective franchisees (Gim et al., 2019). Although franchising prevents some monitoring costs imposed by operating self-owned properties (e.g., Michael & Combs, 2008), it also leads to other informational concerns that may encourage EM. Similarly, management contracts, which Schlup (2004, p. 332) describes as "the most problematic of all operating concepts in the hospitality industry", form one of the main motivations to engage in EM (Turner & Guilding, 2011).

On top of providing incentives for EM, we posit that the plural form provides greater EM opportunities through its financial reporting complexity. Past studies suggest that accounting complexity, and more broadly complexity of financial reporting, is distinct from organizational complexity (e.g., Guay et al., 2016) or transactional complexity (Blankespoor

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<sup>7</sup> GAAP are accounting standards and procedures that companies must follow to establish their financial statements. They are established by the Financial Accounting Standards Board (FASB). In the European Union, publicly-listed companies with consolidated accounts must follow the International Financial Reporting Standards (IFRS) which are developed by the International Accounting Standards Board (IASB).

et al., 2020), even though these elements may inherently be interrelated. In our empirical setting, we consider the use of plural form as a source of financial reporting complexity.

First, the fee-based business model entails the use of complex accounting rules leading to financial reporting complexity (Chychyla et al., 2019). When using the plural form, accounting for revenue becomes key for hospitality firms. This area of accounting is especially complex for both financial accountants and the users of financial statements (Peterson, 2012), which can provide opportunities to manage earnings (Peterson, 2012). Companies applying IFRS must refer to IFRS 15 ('revenue from contracts with customers') that leaves much to accountants' discretion. InterContinental Hotels Group (IHG) declares that the only critical judgement made in applying the group's accounting policies relates to the system fund in place "to collect and administer cash assessments from hotel owners for the specific purpose of use in marketing, the guest reservation system and hotel loyalty program" (2022, p. 158). On this point, audit firm Grant Thornton declares that "the IHG rewards loyalty scheme has presented a number of complexities to be considered" (2018, p. 18). In the U.S., similar challenges arise in the consolidated financial statements of fee-oriented groups. For example, in Marriott's 2022 annual report, the auditors mention two critical audit matters<sup>8</sup> that derive from the plural form strategy and the associated accounting complexity. More generally, following the release of the accounting standards update No. 2014-09 'revenue from contracts with customers (topic 606)' in 2014, the U.S. Financial Accounting Standards Board (FASB) had to publish an amendment because "private company stakeholders in the franchise industry raised concerns about the cost and complexity of applying Topic 606 to determine the amount and timing of revenue recognition for initial franchise fees [...]" (FASB, 2021, p. 1).

Second, the plural form can provide more EM opportunities as the accounting items are more numerous and diverse. While accounts related to property, plant and equipment, and

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<sup>8</sup> Critical audit matters are areas of high audit risk.



leverage, for example, may be smaller in value, they are not trivial and associated with additional accounts related to fee-based contracts. For example, the plural form adoption is accompanied by the recognition of identifiable and non-identifiable intangible assets such as goodwill and brands (Lussi et al., 2023).

Finally, an organization based on the plural form entails a wide range of transactions and partners (Gannon et al., 2010; Sohn et al., 2014), which is likely to generate uncertainty that can be exploited by managers seeking to engage in EM practices. In this respect, Peterson (2012, p. 75) states that “uncertainty about transactions increases for firms with numerous customer-specific contracts or agreements documented by multiple contracts.”

Based on the above rationale, we state the following hypothesis:

**Hypothesis 1 (H1): Greater use of the plural form is positively associated with EM.**

### *2.3. Moderating role of ownership concentration*

Agency theory is the dominant theoretical foundation of research on corporate governance mechanisms in hospitality and tourism research (Y. Li & Singal, 2022). Within the agency framework previously described, there is indeed a need for governance structures to police contractual relationships (Hill and Jones, 1992). Large companies are generally owned by a limited number of controlling shareholders (La Porta et al., 1999) who have strong incentives (and the ability) to monitor managers, thereby mitigating agency conflicts (Grossman & Hart, 1988). For instance, large shareholders might monitor managers to reduce the likelihood that they act in their own interest to expropriate private benefits (Shleifer & Vishny, 1986), which could harm firm value. These controlling shareholders may be institutional investors (e.g., pension funds, mutual funds, hedge funds, private equity funds) or non-institutional ones (e.g., individuals or members of a family owning a significant part of the firm’s voting rights). We alternatively review both.

Various studies document that institutional ownership improves monitoring effectiveness and influences corporate decisions, ultimately mitigating agency costs and improving corporate governance (e.g., Hartzell & Starks, 2003). Chang et al. (2016) argue that significant institutional ownership increases the probability and effectiveness of monitoring since institutions who have a large corporate stake have access to the board and/or the management. Consequently, they are able to put pressure on other board members and executives to act in their own interest (Hartzell & Starks, 2003; Velury & Jenkins, 2006). Investigating publicly-traded U.S. tourism companies, Ozdemir (2020, p. 2) states that, “from a control standpoint, institutional ownership in a company increases the external monitoring on the management as well as on the board of directors [...]” Following this perspective, previous literature shows that higher institutional ownership is associated with reduced EM practices and higher earnings quality (e.g., Kałdoński et al., 2020; Velury & Jenkins, 2006).<sup>9</sup>

The literature on family firms also shows that family blockholders are associated with earnings of higher quality (i.e., lower levels of EM) (e.g., Cascino et al., 2010). Fernando et al. (2014) explain how family blockholders are among the best remedies against agency conflicts. As the socioemotional wealth theory explains (e.g., Gomez-Mejia et al., 2007), family members maximize economic wealth for themselves and for future generations in addition to pursuing non-economic goals such as the need to preserve the reputation or to maintain control and family harmony. To reach these goals, families strengthen the monitoring of the management team.

Based on the above arguments, we formulate the following hypothesis:

**Hypothesis 2 (H2): Ownership concentration moderates the positive association between the plural form and EM.**

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<sup>9</sup> Empirical exceptions include Lemma et al. (2018) who report a positive association between institutional ownership and accrual-based EM and no association between institutional ownership and real EM as well as Parte-Esteban and Ferrer García (2014) who document a negative association between ownership concentration and earnings quality.

Following Hayes (2018), Figure 1 displays the conceptual diagram corresponding to the two hypotheses.

[Insert Figure 1 here]

### 3. Methodology

#### 3.1. Sample and data

We collected all European and North American publicly-listed hospitality firms (hotel and restaurant firms) available on Refinitiv Datastream between 2010 and 2019. Next, we hand-collected franchise and management fees, ownership data (name of the three largest shareholders, the investor type, and the percentage of voting rights owned) and corporate governance information (audit committee size and independence) in annual reports, forms 10-K, and DEF 14A proxy statements. All firm-year observations with missing information were dropped. The final sample is composed of 499 firm-year observations: 23% are hotel firms and 77% restaurant firms. The most represented countries are the United States (57%), the United Kingdom (18%), Canada (9%), and France (8%).

#### 3.2. Financial reporting quality measure

To build our dependent variable and EM proxy, we follow the widely-used Dechow and Dichev model (2002):

$$\Delta WC_{it} = \beta_0 + \beta_1 * CFO_{it-1} + \beta_2 * CFO_{it} + \beta_3 * CFO_{it+1} + \varepsilon_{it} \quad (1)$$

where  $\Delta WC$  stands for the change in working capital, defined as the changes in non-cash current assets less changes in current liabilities excluding changes in the current portion of long-term debt.  $CFO$  stands for cash flow from operations. Note that in model (1), all variables are standardized by beginning total assets. Dechow and Dichev (2002) match working-capital accruals ( $WC$ ) to cash flows. Since accruals foresee expected cash payments and collections, they should be reversed upon the payment and collection of cash (Dechow et al., 2010). The model measures abnormal accruals as the standard deviation of residuals from the regression

in model (1). Abnormal accruals are those that cannot be explained by the realized cash flows. The higher the standard deviation of residuals, the lower the accrual quality (and thus lower financial reporting quality). In line with previous studies (e.g., André et al., 2016), we use the absolute value of abnormal accruals (*ABSABNACC*) that does not differentiate between upward and downward EM.<sup>10</sup>

### 3.3. Model development

To analyze the impact of the plural form on financial reporting quality, we develop the following OLS<sup>11</sup> model:

$$ABSABNACC_{it} = \beta_0 + \beta_1 * PLURAL\_FORM_{it} + \beta_2 * OWN_{it} + \beta_3 * PLURAL\_FORM_{it} * OWN_{it} + \sum_{j=4}^N \beta_j * CONTROLS + FIXED\_EFFECTS + \varepsilon_{it} \quad (2)$$

where *ABSABNACC* stands for absolute abnormal accruals, our measure of financial reporting quality. To quantify the extent<sup>12</sup> of the pursuit of the plural form (*PLURAL\_FORM*) and thus the reliance on fee-based strategies, we use the fee-income ratio. A fee-income ratio greater than 0% (but smaller than 100%) indicates that the company is mixing equity-based and fee-based strategies, thus following the plural form. In line with previous studies (e.g., Li & Singal, 2019), the fee-income ratio is calculated as the sum of franchise and management fees divided by total revenue. The greater the fee-income ratio, the higher the reliance on the plural form. A positive coefficient on *PLURAL\_FORM* ( $\beta_1$ ) would indicate that the pursuit of the plural form is positively associated with EM practices in hospitality firms and consequently negatively with financial reporting quality. Next, *OWN* is the percentage of voting rights owned by the three main shareholders. In additional tests, we further split ownership concentration

<sup>10</sup> In contrast, Gim et al. (2019) analyze only income-increasing EM.

<sup>11</sup> Estimating OLS regressions with robust standard errors does not affect results on our two hypotheses. Similarly, running estimations using either random effects or fixed effects leaves our main findings unchanged.

<sup>12</sup> As we account for the extent of the fee-based orientation, our findings complement past studies such as the one by Gim et al. (2019) focusing on U.S. franchise restaurants and their propensity to manage earnings.

(*OWN*) into institutional ownership (*INST\_OWN*) and non-institutional ownership (*NONINST\_OWN*).

In line with previous studies investigating EM practices (e.g., Gim et al., 2019), *CONTROLS* is a vector of firm-specific control variables including *SIZE* (the natural logarithm of total assets),<sup>13</sup> *LEVERAGE* (the total debt to total asset ratio), *GROWTH* (the year-on-year variation in total assets), *DLOSS* (a dummy variable equal to 1 if the net income is negative), *AC\_SIZE* (the number of audit committee members), *AC\_INDEP* (the percentage of independent audit committee members), and *BIG4* (whether the firm is audited by a Big Four company). In all tests, we include country, year, and sub-sector (hotel or restaurant) fixed effects.

## 4. Results

### 4.1. Descriptive statistics

Panel A of Table I presents the descriptive statistics. Overall, the mean absolute value of abnormal accruals (*ABSABNACC*) is equal to 0.057 (median of 0.027). The mean fee-income ratio (*PLURAL\_FORM*) is 12.8% while its median is close to 0%. This figure is in line with Li and Singal (2019) who document an average fee-income ratio of 10.8% in the hospitality industry. The total voting rights owned by the three largest shareholders (*OWN*) equals 41.6% on average. This figure corroborates the OECD recent findings that, in three-quarters of global listed companies, the three largest shareholders hold more than 30% of the firm's capital (De La Cruz et al., 2019).

Panel B of Table I provides means and differences in means for the variables used in our tests comparing firms following the plural form and other ones. Overall, firms following the plural form tend to be associated with higher EM (*ABSABNACC*) reflecting lower financial reporting quality, more concentrated ownership (*OWN*), and higher leverage (*LEVERAGE*).

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<sup>13</sup> Main results remain unchanged if we instead include the natural logarithm of revenue as a size proxy.

**[Insert Table I here]**

Table II presents the correlation matrix. Absolute abnormal accruals (*ABSABNACC*) are negatively correlated with firm size (*SIZE*) and Big Four auditors (*BIG4*) while they are positively correlated with net losses (*DLOSS*) and *GROWTH*. The fee-income ratio is positively correlated with *LEVERAGE* and negatively correlated with *DLOSS*. Institutional ownership (*INST\_OWN*) is positively correlated with size, leverage, audit committee independence, and audit by Big Four auditors. Untabulated variance inflation factors analysis in our main model indicates no multicollinearity issue as factors range from 1.06 to 2.79.

**[Insert Table II here]**

## 5.2. Main analyses

Table III documents the results of the estimation of model (2). In column 1, the coefficient on *PLURAL\_FORM* is positive and significant at the 1% threshold while the coefficient on *OWN* is not significant. This result indicates that, all else equal, firms operating under the plural form are associated with poorer financial reporting quality (i.e., higher EM). In column 2, we introduce the *PLURAL\_FORM\*OWN* interaction term. The coefficient on the interaction is negative and significant ( $p < 0.01$ ), which indicates that ownership concentration in firms using the plural form mitigates the negative impact of the plural form on earnings quality.

Next, in column 3, we replicate the tests of column 2 by replacing *OWN* by *OWN\_Q2*, *OWN\_Q3*, and *OWN\_Q4* which are dummy variables equal to 1 if the three main shareholders own a percentage of voting rights included in the second, third or fourth quartile of the *OWN* distribution, respectively. This enables us to further determine whether greater ownership concentrations are associated with a more substantial reduction in EM, which would mean more monitoring from controlling shareholders. The results indicate that only coefficients on *PLURAL\_FORM\*OWN\_Q3* and *PLURAL\_FORM\*OWN\_Q4* are negative and significant

( $p < 0.05$ ). In other words, ownership concentration positively impacts financial reporting quality only when the three main owners command a high degree of voting rights. Overall, the results of Table III support H1 and H2: the pursuit of the plural form is associated with heightened EM practices, which we attribute to the underlying widened information asymmetry between management and stakeholders and increased financial reporting complexity. Furthermore, highly concentrated ownership structures mitigate the positive association between the plural form and EM practices.

**[Insert Table III here]**

Table IV further investigates whether the mitigating effect of ownership concentration on the relation between the plural form and EM is conditional on shareholder types. To do so, we split *OWN* between *INST\_OWN* (the percentage of voting rights owned by institutional investors, if they are among the three main shareholders) and *NONINST\_OWN* (the percentage of voting rights owned by non-institutional investors, if they are among the three main shareholders). The results in column 1 indicate that the fee-income ratio is still strongly associated with EM while shareholder types are not. Furthermore, in column 2, the interactions of *PLURAL\_FORM* with *INST\_OWN* and *NONINST\_OWN* are negative and significant ( $p < 0.05$  and  $p < 0.01$ ). The mitigating effect of ownership concentration is thus not conditional on shareholder types as both institutional and non-institutional ownership mitigate EM practices. Individuals or families owning a significant proportion of a company's capital care about their reputation and the long-term performance of the firms and thus impose stricter corporate governance rules and controls to mitigate the risk of fraudulent activities by managers (Gomez-Mejia et al., 2007).

**[Insert Table IV here]**

### 5.3. Robustness tests

#### 5.3.1. Alternative financial reporting quality proxy

To ensure the robustness of our findings, we use an alternative EM proxy, namely the propensity to beat or meet earnings benchmarks. Indeed, stock markets tend to react positively when firms beat analysts' forecasts (i.e., positive earnings surprise). Consequently, managers care about beating earnings benchmarks as failing to do so might have detrimental consequences for shareholders. Various studies document that firms manage earnings to meet or beat earnings benchmarks (e.g., Barua et al., 2006).

In line with previous studies (e.g., Carcello & Li, 2013), *MEET\_OR\_BEAT* is a dummy variable equal to 1 if the variation of net income before extraordinary items, scaled by the one-year lagged market value of equity, ranges between 0% and 2% and 0 otherwise. In Table V, using a probit model, we replace *ABSABNACC* by *MEET\_OR\_BEAT* as a dependent variable. The results are in line with our main findings.

**[Insert Table V here]**

### 5.3.2. *Endogeneity concerns*

A concern is that the decision to pursue a plural form strategy is not random. As a result, the endogeneity underlying such a decision might bias our estimations. To address this concern, we run entropy balancing estimations in Table VI. Entropy balancing is a technique similar to propensity score matching, with the advantage of not reducing sample size. It identifies a control sample that is the closest possible to the treated sample in terms of observable covariates (McMullin & Schonberger, 2022). In our estimations, the treated sample is composed of firms using the plural form and the control group is composed of all other firms. The results in columns 1 and 2 of Table VI confirm our main findings.

Second, one might argue that our sample does not represent the entire population of publicly-listed hospitality firms, thereby containing a self-selection bias. To mitigate this concern, we run a Heckman (1979) two-stage model. In the first stage (column 3 of Table VI), we investigate the determinants of using the plural form using a probit model. In the second



stage, we include the inverse Mills ratio (IMR) calculated in the first stage. Moreover, to fulfill the exclusion restriction, we exclude *LEVERAGE* from the second stage.<sup>14</sup> Overall, results from columns 4 and 5 of Table VI are in line with our main findings. We conclude that our results are robust with regard to endogeneity concerns.

**[Insert Table VI here]**

## 6. Conclusion

### 6.1. Discussion of findings

Our study addresses an important question in the hospitality industry, i.e., whether the pursuit of the plural form is detrimental to financial reporting quality. Our findings indicate that business strategy developments in recent decades in the hospitality industry may not be neutral for firm outsiders. Indeed, we document that the pursuit of the plural form leads to more EM practices, which reflects lower financial reporting quality. Our analyses also show that large blockholders mitigate the negative impact of the plural form on financial reporting quality.

These results are naturally grounded in agency theory. We attribute the alteration of financial reporting information by hospitality managers to the multiplication of contracts with external entities when fee-oriented and equity-based strategies are concurrently pursued. These additional organizational arrangements generate both an incentive and an opportunity to manage earnings. Knowing that EM derives from information asymmetry, it is worth noting that accrual-based EM is likely to subsequently exacerbate information asymmetry *vis-à-vis* market players (Bhattacharya et al., 2013), resulting in lower market liquidity, higher cost of capital, and unintended wealth transfers (Schipper & Vincent, 2003).

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<sup>14</sup> *LEVERAGE* is highly significant in the first stage but it is not correlated with the disturbance term in the second stage.

H2 analyses yields several findings. First, hospitality managers' EM practices are influenced by the joint effect of business strategy and ownership structure – the latter serving as a key corporate governance mechanism from an agency perspective. Interestingly, the monitoring of blockholders reverses the positive relationship between plural form and the level of abnormal accruals.<sup>15</sup> These results are consistent with those of Bar-Yosef and Prencipe who state that, “in the presence of high ownership concentration, market makers may not consider earnings management as a risk factor because of the monitoring directly exercised on managers by the dominant shareholders” (2013, p. 312). Second, blockholders exert a significant effect only for the highest levels of ownership concentration, which ultimately invites a close examination of concentration levels to overcome a binary view of this question. Finally, we find no evidence of a distinct monitoring role for institutional investors (compared to non-institutional ones) despite the fact that “institutional ownership acts as an external corporate governance mechanism, which is considered an important attribute to ensure that managers refrain from opportunistic strategies and observe the best interest of the shareholders” (Ozdemir et al., 2023, p. 3). This finding actually implies that individuals, such as families, have a level of control substantially similar to institutional investors. For large hospitality firms pursuing a plural form business strategy, curbed EM is thus contingent on the level of voting power, not on the quality of its holder.

## *6.2. Theoretical and practical implications*

As such, this study makes several contributions to the dearth of research on the roles and efficacy of business models in the hospitality sector (Dogru et al., 2023). First, by documenting a positive association between the plural form and EM practices using international data on hospitality firms, we add to Gim et al. (2019) who focused on the link

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<sup>15</sup> We document here an antagonistic moderating effect as the sum of the significant coefficients on variables of interest in Column (2) of Table III is negative.

between franchises and EM in the U.S. restaurant context. In this way, we demonstrate the generalizability of their results. Second, we more broadly contribute to the literature on business strategies in the hospitality industry (Dogru et al., 2020; Gim et al., 2019; Poretti et al., 2023; Seo et al., 2021) by confirming that the outcomes of the plural form are to be nuanced from some agency tenets. Indeed, although it might lead to significant benefits, its underlying drawbacks (i.e., higher complexity and more potential for EM practices) should not be overlooked. Third, by showing that controlling shareholders counterbalance the negative effect of the plural form on financial reporting quality, our study adds to the literature documenting the monitoring effect of shareholder concentration in the hospitality and tourism sector (e.g., Peng et al., 2021).

Our study sheds light on some important results from a practical perspective. Given high competition prevailing in the hospitality industry, profitable growth strategies, such as the fee-oriented organization, are under the spotlight. In this context, decision-makers should also consider hidden costs. As adopting a mix of equity-based and fee-oriented strategies might enable faster growth and generate significant additional cash flows, the underlying greater financial reporting complexity and EM opportunities might appear of secondary importance for hospitality managers. However, they are of utmost importance for sophisticated investors as the risk of accounting fraud has the potential to impair firm reputation and value. Also, our study highlights the importance of corporate governance to mitigate agency costs. As such, shareholder structures appear to play key roles in preventing managers from expropriating private benefits using EM techniques. From an investor perspective, analyzing the ownership structure of the firm should be fully integrated in the financial analysis process to build a complete information mosaic leading to efficient investment decision-making.

### *6.3. Limitations and future research*

This study is not without limitations. First, our sample is composed of international publicly-listed hospitality companies. To make the findings more generalizable to the entire hospitality landscape, future studies could include companies from other hospitality sub-industries such as amusement parks, airlines, and gaming or private firms. Furthermore, hospitality firms are highly sensitive to macro-economic, political, and cultural factors. Future studies may incorporate such factors in order to study their relationship with EM. Likewise, an analysis of the impact of an exogenous shock, such as the Covid-19 pandemic, on EM would be valuable. Third, it would be interesting to complement our study on mandatory accounting information with a study on voluntary information disclosure practices via other channels, such as conference calls, to examine whether the plural form affects the accounting information environment.

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