A meta-analytic review of antecedents of hospitality and tourism firms' performance: A cross-cultural comparison

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ABSTRACT

Despite the magnitude of scholarly understanding of firm performance, there has been no robust statistical meta-analytic review of antecedents of firm performance in hospitality and tourism journals. Therefore, this study conducted Hunter-Schmidt random-effects meta-analyses on the relationships between firm performance and its predictors based on Kaplan and Norton's balanced scorecard framework. This study identified fourteen antecedents of firm performance, and all proposed relationships were significant. This study also examined the moderating role of culture on the relationships at continental- and national-approaches by adopting sample z-tests and meta-regression. This study found the moderating role of culture on seven relationships at the continental-level comparison and identified corresponding cultural dimensions responsible for the degree of the relationships. This study expanded the literature on firm performance and contributed to strategic and financial management literature. Based on findings, the authors presented several important practical implications.

1. Introduction

Firms generally seek to maximize profit while ensuring exemplary performance. Hospitality and tourism scholars have thus conducted increasingly in-depth research on firm performance, especially its determinants. Causal relationships, found in the hospitality and tourism literature, pertain to firm strategies (Assaf, Josiassen, & Cvelbar, 2012; Koh, Lee, & Boo, 2009; Rhou & Koh, 2014; Tavitiyaman, Zhang, & Qu, 2012; Youn, Hua, & Lee, 2015), employees' attitudes/behaviors (Chi & Gursoy, 2009; Fisher, McPhail, & Menghetti, 2010; Koys, 2003), customer outcomes (Inoue & Lee, 2011; Sun & Kim, 2013), firm characteristics (Koh et al., 2009; Youn et al., 2015; Zheng & Tsai, 2019), and environmental factors (Lee & Ha, 2012).

While relevant findings have enriched the hospitality and tourism firms' performance literature, researchers have also sought to paint a clearer picture by synthesizing studies (e.g., Altin, Koseoglu, Yu, & Riasi, 2018; Park & Jang, 2014; Sainaghi, Koseoglu, d'Angella, & Tehheh, 2019a; Sainaghi, Phillips, & Zavarrone, 2017; Tsai, Pan, & Lee, 2011). Even so, no quantitative meta-analytic review has employed robust statistical procedures to clarify firm performance in hospitality and tourism contexts. Findings of previous meta-analytic research on firm performance of multiple industries that did not control industry factors

can provide some general implications to the hospitality and tourism industry and the relevant literature. However, meta-analytic research (e. g., Combs, Liu, Hall, & Ketchen, 2006; Datta, Guthrie, & Wright, 2005; Subramony, 2009) identified the influence of a firm's industry context or type (i.e., manufacturing vs. service) on the relations of firm performance. For example, a meta-analytic review conducted by Combs et al. (2006) reported that a type of human resource practices appeared to be more influential to manufacturing firms than service firms, whereas another meta-analytic study of Datta et al. (2005) found that the effect of the identical type of human resource practices on firm performance was greater in service industries where capital intensity is low than in manufacturing industries. Addition to these conflicting results due to the industry context, even under the categorization of service industries, the effect can be observed differently in the hospitality industry because the hospitality industry is relatively capital-intensive (Tsai et al., 2011). Following the previous research that confirmed contingency theory, this study is eligible to be conducted to generate meaningful contributions, particularly to the hospitality and tourism literature and industry. Also, Tsai et al. (2011) and Park and Jang (2014) suggested, in their extensive overview of hospitality financial management, the necessity of separate investigations on hospitality settings from other service settings due to the hospitality industry's unique operating essences and financial

characteristics.

The present study aims to fill these gaps by presenting a meta-analysis of the relationships between hospitality and tourism firms' performance and its numerous antecedents. Specifically, this study considers associations between non-financial (i.e., operational) measures, based upon Kaplan and Norton's (1992) "balanced scorecard" framework (i.e., customer, internal, and learning and growth perspectives), and hospitality and tourism firms' performance. This framework has extended traditional assessments of financial measures (i.e., based on tangible assets) by applying non-financial measures to evaluate intangible assets (Kaplan & Norton, 1992). The balanced scorecard approach was adopted in this study because intangible assets are crucial to hospitality and tourism firms' value creation (Park & Jang, 2014; Sainaghi, Phillips, & Corti, 2013), suggesting that the adoption of the balanced scorecard substantially and extensively captures important aspects of the hospitality and tourism firms' performance (Sainaghi et al., 2013). Moreover, as Sainaghi et al. (2013) emphasized the need for hospitality and tourism research to focus on intangible aspects of the balanced scorecard approach, recent studies have begun to investigate the potential antecedents of the hospitality and tourism firms' performance that were primarily operationalized adopting the balanced scorecard (Fatima & Elbanna, in press; Sainaghi, Phillips, & d'Angella, 2019b). Given enduring academic interest in antecedents of firm performance, this study primarily seeks to provide generalized insight into the antecedents of hospitality and tourism firms' performance based on meta-analytic evidence.

The secondary aim of this study is to explore the moderating role of culture on the relationships between hospitality and tourism firms' performance and its predictors. As hospitality and tourism industries have acknowledged the importance of internationalization strategies (Rhou & Koh, 2014; Tsai et al., 2011), an investigation of the diverse effects of culture on relevant relationships is needed (Sainaghi, 2010). Continent- and nation-level approaches were adopted to examine moderating effects: first, this study meta-analytically compared results across cultures by continental region (i.e., East Asia, Europe, the Middle East, North America, Oceania, and South America); then, to extend these results, meta-regression was conducted to identify which national cultural dimensions (i.e., institutional and in-group collectivism, humane orientation, power distance, and uncertainty avoidance), as proposed by Hofstede (1980) and House, Hanges, Javidan, Dorfman, and Gupta (2004), could intensify or mitigate the effect sizes of the associations between firm performance and its antecedents.

2. Review of literature

2.1. The balanced scorecard

Although predictors of firm performance have been thoroughly explored in hospitality and tourism, the sheer number of possible predictors has hindered development of a theoretical framework. The authors relied on Kaplan and Norton's (1992) balanced scorecard approach to determine which important factors reflecting meaningful facets of hospitality and tourism firms to include in this study. The balanced scorecard strategy is known for performance measurement of firms and related strategic implementation (Chen, Hsu, & Tzeng, 2011; Tayler, 2010).

The balanced scorecard was developed from the understanding that firm performance cannot be measured by a single domain (Kaplan & Norton, 1992); it must instead be assessed holistically due to its complexity (Elbanna, Eid, & Kamel, 2015). In other words, focusing on explicit and directly measurable financial elements cannot capture the nuances of hospitality and tourism firms' performance (Fatima & Elbanna, in press; Kaplan & Norton, 1992). Operational measures from diverse domains must be considered as well (Sainaghi, Phillips, & d'Angella, 2019). Essentially, the balanced scorecard is a management technique intended to transform a firm's intangible assets (e.g., human

capital, information processing systems, innovation capabilities, customer relations, and high-quality operations) into measurable forms (Kaplan & Norton, 2004).

Scholars later identified causal relationships between these measures, including between the financial domain of firm performance and other domains (Chen et al., 2011; Fatima & Elbanna, in press; Tayler, 2010). In this case, financial performance represents a consequence of operational action, and financial accomplishments should follow once performance fundamentals (i.e., the domains of customer, internal, and learning and growth) are established (Chen et al., 2011; Kaplan & Norton, 1992; Sainaghi, Phillips, & d'Angella, 2019). It suggests that as operational measures were classified based on the balanced scorecard framework, customer, internal, and learning and growth dimensions are each positively related to the financial domain (Chen et al., 2011; Tayler, 2010). In sum, a firm's operational performance, as evidenced by these three factors, is key to its sustainability and effectiveness, which, in turn, lead to competitive advantage (non-financial) and successful (financial) performance (Fatima & Elbanna, in press; Sainaghi et al., 2013).

2.2. Antecedents of firm performance based on the balanced scorecard approach

2.2.1. Customer perspective

Ultimate firm success (i.e., financial performance) is directly linked to customers' success (Banker, Chang, & Pizzini, 2004; Chen et al., 2011). Many firms, including those in hospitality and tourism, emphasize customers in their missions. The customer perspective encompasses the value created by targeting consumer segments through a firm's products/services (Elbanna et al., 2015; Kaplan & Norton, 2004). Relevant outcomes involve time, quality, service, and cost (Kaplan & Norton, 1992). Due to the difficulty in quantifying these four aspects, researchers have often focused on satisfaction, retention, and loyalty from a customer standpoint (Banker et al., 2004; Ittner & Larcker, 1998). Because quality measures can include on-time delivery, the present study combined both elements and considered customers' perceived quality more generally. Importantly, customer-perspective measures should be evaluated by customers rather than firms (Elbanna et al., 2015; Kaplan & Norton, 1992). Only customer-based measures were hence considered in this study; service quality as measured by employees (i.e., managers) was excluded.

Intuitively, firm performance depends on how favorably customers perceive (and are satisfied with) given services. Satisfying customers through high-quality service is essential if hospitality and tourism firms wish to attain sustainable value (Inoue & Lee, 2011; Simons, Parks, & Tomlinson, 2017; Sun & Kim, 2013). Accordingly, this study predicts that customer satisfaction and perceived quality are positively related to hospitality and tourism firms' performance.

2.2.2. Internal perspective

While customer considerations are critical, so are the tasks firms must complete internally to promote consumer satisfaction (Kaplan & Norton, 1992; Sainaghi, Phillips, & d'Angella, 2019). The internal perspective reflects firms' internal business processes, including decisions and actions, that lead to strategies to achieve financial outcomes by conveying value to customers (Elbanna et al., 2015; Kaplan & Norton, 2004). Essentially, these operations enable firms to satisfy customers. Related measures correspond to management, internal activities, emphasis, and employees' actions (Elbanna et al., 2015; Kaplan & Norton, 1992). This study adopted several internal-perspective measures: human resource practices, innovation, efficiency (or productivity), organizational capabilities (e.g., absorptive capacity and knowledge management), management-level support, and employee performance.

Human resource practices refer to how firms elicit productive employee performance (Yadegaridehkordi, Nilashi, Nasir, & Ibrahim,

2018). Hotel and tourism employees must possess comprehensive skills to complete complex job tasks, hence these firms' focus on human resources. Investing in human resource practices (e.g., training, job design, employee empowerment, and inclusion in decisions) and policies (e.g., compensation and promotion) is vital to hospitality and tourism firms' performance (Tajeddini, Martin, & Altinay, in press; Tavitiyaman et al., 2012). Innovation, including adopting new information systems and technologies, is similarly crucial to hospitality and tourism firms' competitive advantage; innovation enables firms to better understand customers' needs and expectations, identify business opportunities, develop market offerings, and deliver standardized services (Banker et al., 2004; Tavitiyaman et al., 2012; Yadegardehkordi et al., 2018). Efficiency, derived from internal processes to reduce costs associated with production or services, leads to cost advantages that enhance hospitality and tourism firms' performance if a firm provides comparable products (Assaf et al., 2012; Lee, Kim, Seo, & Hight, 2015). The knowledge management literature has also shown that organizations' abilities to absorb or adapt knowledge can boost firm performance; that is, knowledge management encourages employees to share information and enables hospitality and tourism organizations to acquire high-level capabilities to perform well (Kale, Aknar, & Başar, 2020; Wilke, Costa, Freire, & Ferreira, 2019). Management support is another crucial factor in helping hospitality and tourism firms achieve strong profitability and competitiveness. Support from upper management (e.g., supervisors) can build strong relationships across management and employees (Susskind, Kacmar, & Borchgrevink, 2018; Yadegardehkordi et al., 2018). Lastly, regarding employee performance, this study drew upon Organ's (1997) notion of organizational citizen behavior by considering contextual performance based on employee behavior that supports a firm's social, psychological, and organizational environment. Employee performance entails the following: developing new ideas, assisting coworkers, accepting requests without hesitation, and performing excellent work. Employee performance, particularly at lower organizational levels, can contribute to a firm's overall success (Banker et al., 2004; Fisher et al., 2010; Sainaghi et al., 2013). This study proposes positive correlations between each of these operational measures and hospitality and tourism firms' performance.

2.2.3. Learning and growth perspective

Market conditions are ever-changing and compel firms to engage in continuous improvement (Lee et al., 2015). The learning and growth perspective describes the "underlying soil" for improvement as fundamental intangible assets that enable firms to learn and improve (Kaplan & Norton, 1992; Sainaghi et al., 2013). These assets encompass human, information, and organizational capital. Human capital is a strategic competency wherein employees' skills, talents, and know-how are essential to strategic implementation activities. Information capital constitutes an infrastructure of information exchange and application to enact strategies. Organizational capital reflects a firm's embedded culture, including a shared mission and vision among employees to execute strategies (Kaplan, 2009). The learning and growth perspective thus involves an organization's leadership, teamwork, and goal alignment. Taking these three forms of capital together, this perspective demonstrates how employees, technology, and an organizational climate can collectively bolster firms' strategies and shape firm performance (Kaplan & Norton, 2004). Based on relevant previous studies (e.g., Banker et al., 2004; Fatima & Elbanna, in press; Kaplan, 2009; Tayler, 2010), this study further identifies six specific predictors beyond the three dimensions of capital.

Organizational social capital reflects social relations within an organization, namely collective goals (visions) and shared trust/values among employees (Leana & Van Buren, 1999). These characteristics are organizational attributes, implying that organizational social capital falls under the learning and growth perspective. As suggested by prior literature, this study argues that substantial social capital among employees can positively affect hospitality and tourism firms' performance by facilitating employee interaction and a cooperative work climate (Leonidou, Leonidou, Fotiadis, & Aykol, 2015). Leadership, particularly senior managers' abilities to convey a clear vision to employees, can also motivate employees to internalize organizational goals and enhance work performance. This outcome can then promote hospitality and tourism firms' performance (Patiar & Mia, 2013; Tajeddini et al., in press). The more satisfied employees are, the more motivated they will be to perform well; this, too, can improve firm performance (Chi & Gursoy, 2009). Scholars have assessed employee satisfaction and retention from a learning and growth perspective (Banker et al., 2004; Tayler, 2010). Employee turnover impedes firms from gaining profits because additional costs are incurred when hiring and training newcomers (Koys, 2003; Simons et al., 2017). Lastly, per Kaplan's (2009) note that employees' attitudes can be classified under learning and growth, the current study took organizational commitment and self-efficacy as relevant measures: employees possessing stronger organizational commitment and self-efficacy should demonstrate higher performance at individual and organizational levels (Fisher et al., 2010; Srivastava, 2001; Tajeddini et al., in press). Overall, this study posits that organizational social capital, leadership, employee satisfaction, organizational commitment, and self-efficacy are each positively related to hospitality and tourism firms' performance while employee turnover is negatively related to hospitality and tourism firms' performance.

2.3. Moderating effect of culture

It is indubitable that managerial practices, developed from Western contexts, need to be adjusted and modified when implemented in non-Western culture, suggesting the value of investigation of cultural divergence (House et al., 2004). Also, previous studies argued that macro-level factors such as culture should be taken into account for a successful implementation of the balance scorecard. The balanced scorecard techniques should not work for only particular firms. Rather, the strategies derived from the techniques have to be customized to organizations in order to facilitate the strategies to reach out to their employees (Carmona, Iyer, & Reckers, 2011). Although firm performance studies in the context of hospitality and tourism have built a considerably large amount of knowledge over decades, the accumulated knowledge of hospitality and tourism firms' performance coupled with cultural perspectives is primarily based on a limited number of studies (e.g., Sainaighi, 2010; Sainaghi et al., 2013). Correspondingly, there have been calls for the necessity of explicitly examining cultural or geographical effects on the relationships between firm performance and its antecedents. Considering the level of importance of this topic in academia as well as global managerial practices, this study also attempted to preliminarily examine *whether* and *how* culture moderates relationships between hospitality and tourism firms' performance and its proposed antecedents. This study thus explored the following research questions:

RQ 1: Do relationships between the proposed predictors and firm performance in a hospitality and tourism context vary by culture? If so, how?

RQ 2. Which cultural dimensions are responsible for these effects?

To appropriately and effectively answer these questions, this study adopted two-level approaches: continental and national levels. The continent- and nation-level comparisons are essential to answering RQ1 and RQ2, respectively. Moreover, cross-cultural continental comparisons may lead to more interpretable results than national comparisons. However, interpreting findings by continental region assumes no intra-cultural variation among these regions (Oh et al., 2014). The fact that Northern European countries often score high on uncertainty avoidance while Eastern European countries score low violates this assumption (House et al., 2004). Also, results cannot indicate which cultural dimensions are responsible for particular effects. To compensate for these shortcomings, national-level comparisons were also performed.

Although these questions cannot be comprehensively addressed in a

single study, this research provides partial answers. Predictions are based on Hofstede's (1980) and House et al.'s (2004) assertions that, on average, Asian countries tend to score relatively high on the cultural dimensions of collectivism, power distance, relationship orientation, and uncertainty avoidance compared to European and North American countries. Multiple studies have provided additional insight (e.g., Combs et al., 2006; Farh, Hackett, & Liang, 2007; Hui, Yee, & Eastman, 1995; Oh et al., 2014). Presumably, the effects of employees' attitudes towards their organizations (e.g., satisfaction and organizational commitment) on firm performance should be stronger in collectivistic than individualistic cultures. Firm performance becomes more achievable when employees collaborate and compromise, which are more common behaviors in collectivistic cultures (e.g., East Asia) compared with individualistic cultures (e.g., Europe and North America) (Hui et al., 1995). Moreover, when employees perceive greater organizational support in cultures with low power distance (e.g., Europe and North America), they generally demonstrate better work outcomes, including organizational commitment and performance, than employees in high-power-distance cultures (Farth et al., 2007). As these work outcomes are positively associated with firm performance, the effect sizes of proposed antecedents on firm performance should be smaller (at the organizational and employee levels) in cultures with higher power distance. Oh et al. (2014) identified similar trends. Lastly, human resource practices (e.g., incentive compensation, selection, training, and flexible task arrangements) enhance employee performance and thus organizational performance (Combs et al., 2006). If such practices occur in cultures with a strong humane orientation (e.g., East Asia) where treating people with fairness and friendliness is important, the relationship between human resource practices and firm performance should be more positive.

These cultural dimensions are defined as described in Hofstede (1980) and House et al. (2004). Specifically, institutional collectivism is the degree to which organizations inspire and admire collective action. In-group collectivism is the degree to which employees convey pride and cohesiveness in their organization. Humane orientation is the degree to which organizations inspire and admire employees who are fair, altruistic, amiable, and cordial to coworkers. Power distance represents the degree to which employees agree that power should be concentrated within a high level of their organization. Lastly, uncertainty avoidance is the degree to which employees prefer consistency, tidiness, and a formalized structure in their day-to-day lives.

3. Method

3.1. Literature search

The authors conducted a broad electronic literature search to identify studies exploring antecedents of firm performance. First, the authors performed a journal-by-journal search to identify studies of interest appearing in hospitality and tourism journals, including *Annals of Tourism Research* (1973–2020), *Cornell Hospitality Quarterly* (1960–2020), *International Journal of Contemporary Hospitality Management* (1989–2020), *International Journal of Hospitality Management* (1982–2020), *Journal of Hospitality and Tourism Research* (1976–2020), *Journal of Hospitality Marketing and Management* (1992–2020), *Journal of Travel Research* (1972–2020), and *Tourism Management* (1982–2020), before or during June 2020 (417 studies were found). Then, to minimize the concern that this study might not be able to cover other relevant studies published in other journals, the authors used Web of Science and Google Scholar to search for articles in general business and service journals that investigated the relationships of interest in hospitality and tourism contexts (six studies were found). Lastly, the search included unpublished studies (i.e., theses and dissertations) to minimize publication bias (13 theses, 37 dissertations, and 2 conference papers were found), resulting in the identification of 475 independent studies. As it is nearly impossible to cover all the relevant studies without any omission,

no study can be free from "methodological inadequacy," and methodological inadequacy does not necessarily lead to biased results (Cooper, 2015). Therefore, in line with Cooper (2015) and Schmidt and Hunter (2015), the authors argue that this thorough search procedure is reliable and not author-sensitive. Searched keywords included "firm performance," "financial performance," "organizational performance," "business performance," "market performance," and "hotel performance."

3.2. Inclusion and exclusion criteria

This study applied several inclusion and exclusion criteria. First, only English-language papers that reported correlation coefficients between firm performance and its antecedents were included. In this process, of 475 studies, 278 studies (247 published and 31 unpublished studies), were excluded because they did not provide any information of correlations; 75 studies were further filtered out because they did not provide correlation coefficients between the proposed antecedents and firm performance (see Fig. 1). Second, for consistency, firm performance was operationalized as at least one measurement from the list (i.e., subjective reports or objective measures of firm performance) in Fig. 1. In doing so, 21 studies were additionally excluded. Third, the authors only included studies whose samples were extracted from a population of customers experiencing hospitality and/or tourism services, employees working for hospitality and/or tourism organizations, or both (i.e., studies using data from multiple sources). The authors did not include studies that computed correlation coefficients for hospitality and non-hospitality firms together because these correlations could produce noise when interpreting results. In this step, nine studies were excluded. Ultimately, 92 (19.4%) independent studies ($N = 33,678$) met these criteria, and 339 relationships were identified.

3.3. Coding procedures

This study identified 5 dimensions and 14 antecedents of firm performance. Firm performance was classified into five dimensions based on prior literature (e.g., Sainaghi, 2010; Venkatraman & Ramanujam, 1986): (a) accounting, (b) market, and (c) operational performance as objective measures, and (d) financial and (e) non-financial assessment as subjective measures. Previous performance literature emphasized the importance of differentiation between objective and subjective performance measures (Andrews, Boyne, & Walker, 2010; Bommer, Johnson, Rich, Podsakoff, & MacKenzie, 1995; Sainaghi, 2010; Sainaghi, Phillips, & d'Angella, 2019). Objective performance measures are primarily based on secondary data (e.g., financial reports and market value), whereas subjective performance measures are assessed through questionnaires or interviews. Although objective measures are considered to be more preferred than subjective measures, there are critical reasons why many previous studies have employed subjective measures and why future research will maintain to use subjective measures. First, subjective performance measures are cost-effective. Second, for certain levels or types of firms, objective performance measures may not be feasible to collect (Sainaghi, Phillips, & d'Angella, 2019; Wall et al., 2004). Considering that objective and subjective performance measures are strongly and positively correlated (Dawes, 1999; Wall et al., 2004), this study values both performance aspects to capture multidimensional aspects of hospitality and tourism firms. More specifically, for objective measures, the accounting aspect of firm performance was related to hospitality and tourism organizations' profitability (e.g., return on assets, return on equity, return on sales, revenue, and revenue growth) as indicated by financial reports. Market performance reflected market value–based performance according to Tobin's Q and stock returns (or prices). The third objective measure was operational performance, including revenue per available room (RevPAR) and occupancy rates, specifically for the hotel industry. Employees' (or managers') subjective financial assessment represented the scope of firms' financial performance (e.g., profitability, market share, and sales growth).
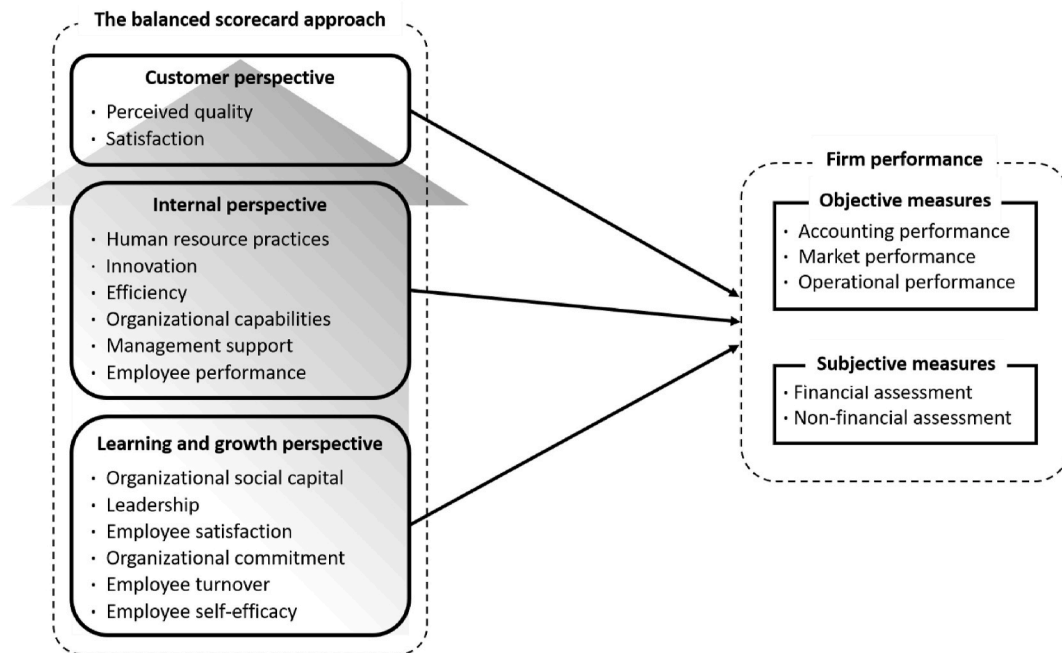
Fig. 1. Theoretical model of firm performance with its antecedents.

Non-financial assessment involved aspects of firms' competitive performance in operations and strategies compared to competitors.

This study adopted the balanced scorecard approach to evaluate antecedents of firm performance and capture as many details as possible from the customer, internal, and learning and growth perspectives. Antecedents were categorized into 14 types across the 3 perspectives (see Fig. 1).

Culture served as the proposed moderator for relationships between 14 predictors and firm performance. For continental-level comparisons, culture was considered a discrete variable and coded as any one of the following: East Asia (e.g., China, Hong Kong, Japan, South Korea, and Taiwan); Europe (e.g., Greece, Italy, Norway, Portugal, Serbia, Slovenia, Spain, Switzerland, and the United Kingdom); the Middle East (e.g., Iran, Jordan, Qatar, and United Arab Emirates); North America (e.g., Canada and the United States); Oceania (Australia and New Zealand); or South America (e.g., Brazil). For national-level comparisons, culture was taken as a continuous variable (see Oh et al., 2014). The authors referred to national-level response-bias corrected scores of societal cultural practices from the GLOBE Project (House et al., 2004).

The first author completed the initial coding process. The coded data were correlations between firm performance and its predictors, reliability estimates of both variables (i.e., firm performance and its antecedents), sample size, and region. To gain coding accuracy, the second author randomly picked 172 relationships (51%) of identified 339 relationships from the initial coding process and checked all the relevant data from the relationships across 46 independent studies (50%). The initial inter-rater agreement rate was 91%. The consensus of the remaining discrepancies from this double-checking procedure was reached through discussion.

Furthermore, the critical consideration in coding procedures, as well as decision making, is to attain reliabilities. However, in meta-analytic research, which entails numerous decisions, it would be challenging to evaluate the acceptable degrees of reliability (Brown et al., 2013). Although electronic coding processes can enhance reliability by effectively extracting the data of variables of interest, the procedures require considerable preparation time and effort, including using electronic tools and creating codes and protocols (Brown et al., 2013). Even if the electronic coding process is used, it is inevitable for researchers to involve in coding procedures when making coding decisions, especially

for cases that should cover broad scopes with complexities. When coding and making decisions, both authors collectively assessed the definitions of coded variables and referents of the corresponding measurement items. The electronic coding procedures have limitations to replace such manually conducted evaluations fully. Also, by cross-coding and cross-checking, this study could achieve reliability by minimizing the potential confounding effects derived from miscoding.

3.4. Meta-analytic procedures

This study adopted Hunter-Schmidt psychometric random-effects meta-analysis, one of the most widely and frequently adopted meta-analysis methods in management and organizational science (Chiaburu, Peng, Oh, Banks, & Lomeli, 2013; Schmidt & Hunter, 2015), to synthesize effect-size estimates from previous research (Schmidt & Hunter, 2015). The random-effects method was chosen for two reasons. First, findings should produce generalizable knowledge (Toulmin, 1961). The fixed-effects method has limitations in deriving generalizable conclusions beyond independent studies, as this method is appropriate only when population parameters are consistent (i.e., conditional inferences). Therefore, if a meta-analytic study seeks to draw generalizable conclusions, the random-effects method is recommended when population parameters vary (i.e., unconditional inferences) (Hedges & Vevea, 1998). Second, confidence intervals (CIs) for mean effect sizes using fixed-effects often generate narrower intervals than actually exist (Schmidt, Oh, & Hayes, 2009). This discrepancy is important when determining whether effects are significant by considering zero-inclusion within intervals. The narrower the interval boundaries, the more likely intervals are to exclude zero, increasing the likelihood of mistakenly identifying a nonsignificant effect as significant (Schmidt et al., 2009).

Reliability estimates were needed to address measurement error in observed correlations; however, studies that used secondary data did not provide reliability estimates. In these cases, 0.80 was applied instead (Bommer et al., 1995). When studies did not report Cronbach's alpha values, construct reliability was used to rectify measurement error (Peterson & Kim, 2013). If neither values were reported, then mean reliabilities, calculated using corresponding reliabilities from other studies, were entered (Schmidt & Hunter, 2015). Additionally, relevant

intercorrelations were used for cases whose composite correlations needed to be calculated (Chiaburu, Oh, Berry, Li, & Gardner, 2011).

This study reported the number of independent studies (*k*), total sample size (*N*), estimated mean true-score (corrected) correlations ($\widehat{\rho}$), mean observed (uncorrected) correlations ($\bar{r}$), 80% credibility intervals (CVs), 95%, CIs, and percentage of total variance attributable to artifacts (i.e., measurement and sampling errors, %Var).

When examining the moderating effect of culture, the authors performed independent sample *z*-tests using standard error estimates for continental-level comparisons. Then, to identify which cultural dimensions strengthened or weakened effect sizes for national-level comparisons, meta-regression using weighted least squares (WLS) regression was conducted with relationships whose subgroup *z*-tests

revealed significant differences. In line with Lipsey and Wilson's (2001) approach, observed correlations between firm performance and its predictors were regressed on the scores of each cultural dimension while accounting for the effect of each primary study's sample size on these correlations. Specifically, scores on cultural dimensions (i.e., institutional and in-group collectivism, humane orientation, power distance, and uncertainty avoidance) were entered as predictors (i.e., moderators) with effect sizes as criterion variables.

Lastly, the minimum cutoff for *k* (i.e., number of correlation coefficients) was set to three for meta-analyses of each relationship; empirical evidence becomes worthwhile when at least three studies published by two different researchers (at a minimum) present a meaningful relationship (Chambless & Hollon, 1998). At least two

Table 1
Meta-analytic results for relationships between firm performance and its antecedents.

IV	DV	*k*	*N*	$\bar{r}$	SD_r	$\widehat{\rho}$	SD_ρ	[CV_L	CV_U]	[CI_L	CI_U]	%Var
Customer perspective												
Perceived quality	Overall perf.	38	9277	.13	.21	.17	.25	[-.14	.49]	[.09	.25]	9.08%
	Acc. perf.	20	5453	.05	.12	.06	.14	[-.11	.24]	[.00	.13]	23.62%
	Market perf.	4	355	.07	.26	.09	.29	[-.28	.47]	[-.21	.40]	17.01%
	Op. perf.	3	761	.02	.07	.02	.03	[-.02	.07]	[-.06	.10]	85.51%
	Subj. financial	10	2499	.31	.19	.37	.19	[.12	.61]	[.24	.49]	10.78%
Satisfaction	Overall perf.	50	11,051	.26	.22	.33	.25	[.00	.65]	[.25	.40]	8.58%
	Acc. perf.	19	4394	.23	.20	.29	.25	[-.03	.60]	[.17	.40]	9.25%
	Market perf.	7	1785	.05	.20	.06	.24	[-.24	.37]	[-.12	.24]	9.88%
	Op. perf.	6	1447	.29	.13	.36	.14	[.19	.53]	[.24	.48]	22.66%
	Subj. fin.	12	2505	.38	.15	.45	.18	[.23	.68]	[.35	.56]	13.96%
	Subj. non-fin.	6	920	.47	.13	.57	.14	[.38	.75]	[.44	.69]	21.89%
Internal perspective												
HR practices	Overall perf.	29	7454	.26	.13	.31	.14	[.13	.48]	[.25	.36]	20.55%
	Acc. perf.	3	162	.27	.05	.32	.00	[.32	.32]	[.17	.46]	100.00%
	Subj. fin.	15	4503	.22	.10	.26	.10	[.14	.39]	[.20	.32]	30.90%
	Subj. non-fin.	10	2597	.34	.13	.39	.17	[.17	.60]	[.28	.50]	12.56%
Innovation	Overall perf.	45	10,222	.28	.18	.35	.20	[.09	.61]	[.29	.41]	11.94%
	Subj. fin.	25	6030	.30	.16	.36	.19	[.11	.61]	[.28	.44]	12.24%
	Subj. non-fin.	16	3476	.31	.17	.39	.19	[.15	.63]	[.29	.49]	13.62%
Efficiency	Overall perf.	23	4854	.50	.17	.59	.16	[.39	.80]	[.53	.66]	12.27%
	Subj. non-fin.	23	4854	.50	.17	.59	.16	[.39	.80]	[.53	.66]	12.27%
Org. capabilities	Overall perf.	8	1244	.54	.13	.64	.13	[.48	.80]	[.55	.74]	22.08%
	Subj. fin.	4	697	.49	.10	.58	.08	[.47	.69]	[.48	.68]	39.66%
	Subj. non-fin.	3	525	.61	.13	.73	.13	[.56	.90]	[.57	.89]	15.53%
Management support	Overall perf.	7	1701	.41	.17	.46	.20	[.20	.71]	[.31	.61]	8.53%
	Subj. fin.	3	932	.43	.19	.48	.23	[.19	.78]	[.22	.75]	4.91%
	Subj. non-fin.	3	689	.42	.09	.46	.12	[.31	.61]	[.31	.61]	20.47%
Employee perf.	Overall perf.	6	1041	.33	.13	.43	.15	[.24	.61]	[.30	.56]	26.61%
	Acc. perf.	4	451	.41	.11	.54	.09	[.42	.66]	[.42	.66]	54.71%
Learning and growth perspective												
Org. social capital	Overall perf.	39	8919	.31	.13	.38	.13	[.22	.54]	[.34	.42]	25.02%
	Acc. perf.	4	507	.26	.03	.33	.00	[.33	.33]	[.24	.41]	100.00%
	Op. perf.	5	521	.26	.12	.33	.08	[.23	.43]	[.22	.44]	66.64%
	Subj. fin.	17	4414	.31	.13	.39	.13	[.23	.56]	[.33	.46]	22.57%
	Subj. non-fin.	13	3477	.32	.14	.38	.14	[.20	.55]	[.30	.46]	18.44%
Leadership	Overall perf.	24	4061	.28	.13	.32	.11	[.18	.47]	[.27	.38]	33.31%
	Acc. perf.	3	161	.32	.06	.38	.00	[.38	.38]	[.24	.52]	100.00%
	Subj. fin.	9	1757	.25	.11	.29	.09	[.17	.40]	[.21	.36]	42.47%
Employee satis.	Overall perf.	12	4679	.17	.12	.21	.12	[.05	.37]	[.13	.28]	18.12%
	Op. perf.	7	2966	.10	.09	.12	.10	[.00	.25]	[.04	.20]	27.85%
	Subj. fin.	3	1013	.26	.05	.29	.00	[.29	.29]	[.23	.35]	100.00%
Org. commitment	Overall perf.	11	2534	.38	.21	.44	.22	[.16	.71]	[.30	.57]	8.11%
	Subj. fin.	5	1229	.35	.21	.40	.23	[.11	.69]	[.20	.61]	7.25%
	Subj. non-fin.	5	1229	.42	.20	.48	.20	[.22	.74]	[.30	.66]	8.08%
Employee turnover	Overall perf.	5	394	-.18	.06	-.22	.00	[-.22	-.22]	[-.32	-.13]	100.00%
	Acc. perf.	4	202	-.23	.05	-.28	.00	[-.28	-.28]	[-.42	-.15]	100.00%
Self-efficacy	Overall perf.	6	666	.28	.17	.30	.16	[.09	.50]	[.15	.44]	26.00%
	Op. perf.	3	374	.19	.12	.23	.10	[.11	.36]	[.08	.38]	53.65%

Note: Employee perf. = employee performance, Employee satis. = employee satisfaction, Overall perf. = overall firm performance, Acc. perf. = accounting performance, Market perf. = market performance, Op. perf = operational performance, Subj. financial = subjective measures for financial assessment, Subj. non-fin. = subjective measures for non-financial assessment, *k* = number of correlation coefficients; *N* = total sample size; $\bar{r}$= sample-size-weighted mean observed correlation; SD_r = standard deviation of observed correlation; $\widehat{\rho}$= mean true-score correlations; SD_ρ = standard deviation of true-score correlation; CV_L = lower bound of 80% credibility interval; CV_U = upper bound of 80% credibility interval; CI_L = lower bound of 95% confidence intervals of true-score correlation; CI_U = upper bound of 95% confidence intervals of true-score correlation; %Var = variance attributable to artifacts.

studies were used to assess the moderator in this research (Oh et al., 2014).

4. Results

4.1. Sensitivity test

The authors conducted two sensitivity tests. First, as this study replaced missing reliability estimates for variables extracted from secondary data with 0.80, sensitivity analyses were performed to examine whether the decision to substitute missing estimates with 0.80 was appropriate. Based on Aytug, Rothstein, Zhou, and Kern's suggestions (2012), the authors replicated meta-analyses on all relationships between the 14 antecedents and firm performance with values of 1 and 0.90 to draw more conservative results. No significant differences emerged across the three sets of meta-analytic results.

Second, during the data-review process, the authors identified three correlation coefficients (one each for the relationship of firm performance with employees' performance, satisfaction, and organizational commitment, respectively) from a primary study (Fisher et al., 2010) with a sample size of more than 2500; it was the only study with such a large sample across all primary studies, suggesting findings could systematically affect sample-size-weighted mean correlations and true-score correlations. Accordingly, a sensitivity analysis (including vs. excluding this study) was conducted. Independent sample z-tests revealed significant differences between the two cases in the three relationships including that study's estimates ($z = 4.31***$; $z = 3.71***$; $z = 3.76***$); thus, main meta-analyses excluded these data.

4.2. Relationships between overall firm performance and its antecedents

Table 1 presents meta-analytic results of the relationships between overall firm performance and its proposed antecedents; 95% CIs excluding zero indicated significant relationships. From a customer perspective, perceived quality ($\hat{\rho} = 0.17$, $N = 9277$) was weakly positively related to firm performance. Customer satisfaction ($\hat{\rho} = 0.33$, $N = 11,051$) was moderately positively associated with firm performance. From an internal perspective, human resource practices ($\hat{\rho} = 0.31$, $N = 7454$), innovation ($\hat{\rho} = 0.35$, $N = 10,222$), management support ($\hat{\rho} = 0.46$, $N = 1701$), and employee performance ($\hat{\rho} = 0.43$, $N = 1041$) were moderately positively associated with firm performance. Efficiency ($\hat{\rho} = 0.59$, $N = 4854$) and organizational capabilities ($\hat{\rho} = 0.64$, $N = 1244$) were strongly positively associated with firm performance. Lastly, from a learning and growth perspective, organizational social capital ($\hat{\rho} = 0.38$, $N = 8919$), leadership ($\hat{\rho} = 0.32$, $N = 4061$), organizational commitment ($\hat{\rho} = 0.44$, $N = 2534$), and self-efficacy ($\hat{\rho} = 0.30$, $N = 666$) were moderately positively correlated with overall firm performance; employee satisfaction ($\hat{\rho} = 0.21$, $N = 4679$) was weakly positively related to overall firm performance, and turnover ($\hat{\rho} = -0.22$, $N = 394$) was weakly negatively related to overall firm performance.

4.3. Relationships between measures of firm performance and its antecedents

Firm performance was classified into five dimensions in this study, and meta-analyses were performed on relationships between proposed antecedents and the five measures of firm performance whenever possible (see Table 1). Similar to findings for overall firm performance, all effect sizes were significant except for three relationships: customer satisfaction was not significantly related to market performance, and perceived quality was not significantly associated with market or operational performance.

This study was not intended to identify differential effects of antecedents on different measures of firm performance; thus, subgroup z-tests were not performed to identify significant differences between these measures. Subjective measures generally had larger effect sizes than objective measures.

4.4. Differential relationships between overall firm performance and its antecedents depending on culture

4.4.1. Continental-level comparison

Table 2 lists cross-cultural meta-analytic results for the relationships of overall firm performance with its antecedents for the continental-level comparison. Independent sample z-test results are shown in Table 3. Cross-cultural analyses at the continental level were feasible under two conditions: (1) when two or more continental regions were available to compare each relationship regarding firm performance and its antecedents; and (2) when k was two or greater for the relationship in each continental region. The authors conducted cross-cultural analyses whenever these criteria were satisfied.

Nineteen significant differences were observed in seven relationships. From a customer perspective, customer satisfaction tended to be more related to firm performance in Europe ($\hat{\rho} = .47$, $N = 1532$) than in East Asia ($\hat{\rho} = 0.18$, $N = 3880$). From an internal perspective, human resource practices more strongly influenced firm performance in East Asia ($\hat{\rho} = 0.34$, $N = 2704$) and North America ($\hat{\rho} = 0.37$, $N = 2, 587$) than in the Middle East ($\hat{\rho} = 0.13$, $N = 668$) and Europe ($\hat{\rho} = 0.17$, $N = 1066$). Innovation was more closely related to firm performance in South America ($\hat{\rho} = 0.68$, $N = 542$) than in any other region. Efficiency was more associated with firm performance in East Asia ($\hat{\rho} = 0.68$ $N = 1720$), Europe ($\hat{\rho} = 0.65$, $N = 499$), and Oceania ($\hat{\rho} = 0.67$, $N = 709$) than in North America ($\hat{\rho} = 0.37$, $N = 958$). Organizational capabilities exerted stronger effects on firm performance in the order of South America ($\hat{\rho} = 0.76$, $N = 542$), North America ($\hat{\rho} = 0.64$, $N = 124$), and East Asia ($\hat{\rho} = 0.52$, $N = 304$). From a learning and growth perspective, employee satisfaction was more closely tied to firm performance in East Asia ($\hat{\rho} = 0.31$, $N = 1426$) than in North America ($\hat{\rho} = 0.12$, $N = 2966$). Organizational commitment was more strongly correlated with firm performance in East Asia ($\hat{\rho} = 0.51$, $N = 1648$) and Oceania ($\hat{\rho} = 0.61$, $N = 162$) than in North America ($\hat{\rho} = 0.23$, $N = 724$).

4.4.2. National-level comparison

Findings from cross-cultural z-tests were supplemented by WLS regression (see Table 4). Due to the nature of data assessed using GLOBE scales, one customer-perspective antecedent (i.e., customer satisfaction) whose relationship with firm performance varied significantly by continental region based on z-tests was excluded from this meta-regression. Otherwise, the meta-regression indicated at least one cultural dimension responsible for the extent of each of the six remaining relationships aside from efficiency.

The relationship between human resource practices and firm performance became more positive as humane orientation ($\beta = .26$, $p < .01$) increased. The extent of the relationship between innovation and firm performance became weaker as power distance ($\beta = -.21$, $p < .01$) increased. The relationship between organizational capabilities and performance became less positive as regions' humane orientation ($\beta = -.35$, $p < .05$) and uncertainty avoidance ($\beta = -0.34$, $p < .05$) increased. The intensity of the association between employee satisfaction and firm performance tended to be stronger when institutional and in-group collectivism ($\beta = 0.50$, $p < .01$; $\beta = 0.15$, $p < .01$) and uncertainty avoidance ($\beta = 0.36$, $p < .05$) increased; conversely, this relationship became weaker as power distance ($\beta = -0.38$, $p < .05$) increased. Lastly, the degree of the relationship between employees' organizational commitment and firm performance strengthened (i.e., more positive) as institutional collectivism ($\beta = .35$, $p < .01$) increased.

Table 2
Cross-cultural meta-analytic results for relationships between firm performance and its antecedents by continental region.

Antecedents	k	N	$\bar{r}$	SD_r	$\hat{\bar{\rho}}$	SD_ρ	[CV$_L$	CV$_U$]	[CI$_L$	CI$_U$]	%Var
Customer perspective											
Perceived quality											
East Asia	5	1670	.23	.30	.29	.35	[-.16	.74]	[-.03	.60]	3.08%
Middle East	2	509	.11	.07	.13	.03	[.10	.17]	[.04	.23]	86.53%
Europe	3	930	.20	.04	.24	.00	[.24	.24]	[.18	.30]	100.00%
N. America	27	6061	.11	.19	.14	.22	[-.14	.42]	[.05	.23]	12.38%
Satisfaction											
East Asia	12	3380	.15	.23	.18	.28	[-.18	.54]	[.02	.35]	6.25%
Middle East	3	571	.33	.12	.37	.12	[.22	.53]	[.22	.53]	27.67%
Europe	7	1532	.39	.22	.47	.27	[.13	.81]	[.27	.68]	6.68%
N. America	23	4781	.29	.18	.36	.21	[.10	.63]	[.27	.45]	12.66%
Oceania	2	330	.20	.08	.25	.04	[.20	.30]	[.13	.37]	83.76%
Internal perspective											
HR practices											
East Asia	10	2704	.31	.09	.34	.11	[.21	.48]	[.27	.41]	24.93%
Middle East	2	668	.11	.04	.13	.00	[.13	.13]	[.06	.21]	100.00%
Europe	4	1066	.13	.10	.17	.08	[.06	.27]	[.07	.27]	43.18%
N. America	11	2587	.30	.12	.37	.14	[.19	.55]	[.28	.46]	21.49%
Innovation											
East Asia	12	3014	.29	.16	.33	.18	[.11	.55]	[.23	.43]	12.88%
Middle East	4	905	.18	.11	.33	.17	[.11	.54]	[.15	.51]	32.47%
Europe	11	2169	.23	.22	.28	.24	[-.03	.59]	[.13	.43]	10.01%
N. America	6	2082	.30	.06	.38	.04	[.33	.44]	[.33	.43]	68.27%
Oceania	5	782	.28	.13	.33	.12	[.17	.48]	[.20	.45]	34.31%
S. America	2	542	.68	.02	.82	.00	[.82	.82]	[.77	.86]	100.00%
Efficiency											
East Asia	6	1720	.60	.10	.68	.07	[.59	.76]	[.62	.74]	29.31%
Middle East	3	602	.38	.18	.45	.20	[.20	.71]	[.22	.69]	11.82%
Europe	3	499	.55	.08	.65	.00	[.65	.65]	[.59	.71]	100.00%
N. America	3	958	.29	.05	.37	.00	[.37	.37]	[.31	.43]	100.00%
Oceania	6	709	.57	.08	.67	.04	[.62	.73]	[.61	.73]	75.20%
Org. capabilities											
East Asia	2	304	.42	.02	.52	.00	[.52	.52]	[.43	.62]	100.00%
N. America	2	124	.57	.02	.64	.00	[.64	.64]	[.52	.76]	100.00%
S. America	2	542	.65	.07	.76	.09	[.65	.88]	[.63	.89]	17.31%
Management support											
East Asia	5	1099	.46	.18	.51	.23	[.21	.80]	[.30	.72]	6.63%
N. America	2	602	.33	.08	.37	.06	[.29	.45]	[.26	.48]	46.96%
Employee performance											
Europe	3	423	.41	.11	.54	.11	[.40	.68]	[.39	.69]	40.93%
N. America	2	590	.27	.10	.34	.12	[.18	.50]	[.16	.53]	23.98%
Learning and growth perspective											
Org. social capital											
East Asia	14	4246	.36	.11	.42	.10	[.29	.56]	[.36	.48]	23.74%
Europe	9	1402	.33	.08	.38	.07	[.29	.47]	[.32	.45]	60.26%
N. America	11	2227	.27	.12	.34	.12	[.19	.50]	[.26	.42]	33.07%
Leadership											
East Asia	7	1978	.28	.06	.31	.00	[.31	.31]	[.27	.36]	100.00%
Europe	2	126	.27	.02	.32	.00	[.32	.32]	[.16	.49]	100.00%
N. America	7	1157	.24	.15	.28	.16	[.08	.48]	[.15	.41]	23.33%
Employee satisfaction											
East Asia	3	1426	.28	.05	.31	.00	[.31	.31]	[.26	.35]	100.00%
N. America	7	2966	.10	.09	.12	.10	[.00	.25]	[.04	.20]	27.85%
Org. commitment											
East Asia	6	1648	.44	.21	.51	.21	[.24	.78]	[.34	.69]	6.26%
N. America	3	724	.20	.04	.23	.00	[.23	.23]	[.16	.30]	100.00%
Oceania	2	162	.55	.09	.61	.03	[.56	.65]	[.49	.72]	87.05%

Note: k = number of correlation coefficients; N = total sample size; $\bar{r}$ = sample-size-weighted mean observed correlation; SD_r = standard deviation of observed correlation; $\hat{\bar{\rho}}$ = mean true-score correlations; SD_ρ = standard deviation of true-score correlation; CV$_L$ = lower bound of 80% credibility interval; CV$_U$ = upper bound of 80% credibility interval; CI$_L$ = lower bound of 95% confidence intervals of true-score correlation; CI$_U$ = upper bound of 95% confidence intervals of true-score correlation; %Var = variance attributable to artifacts.

5. Conclusions and implications

This study systematically reviewed critical determinants of firm performance in hospitality and tourism through meta-analytic procedures. Drawing upon the balanced scorecard framework, this study proposed 14 antecedents of hospitality and tourism firms' performance: two from a customer perspective and six each from an internal and learning and growth perspective. Firm performance was categorized into five dimensions for comprehensive assessment. As expected, all relationships

between the 14 predictors and overall firm performance were statistically significant. In terms of specific associations among the five dimensions of firm performance and predictors from available findings, customer satisfaction was not related to market performance, and customers' perceived quality was not associated with either market or operational performance. These results may have arisen because these dimensions of firm performance are relatively easily influenced by macroeconomic factors and investors' forecasts of firms' future value (Kang & Lee, 2014; Lee & Ha, 2012).

Table 3
Subgroup meta-analytic results for cultures using independent sample z-tests.

Antecedents	Regions			$|z|$	Antecedents	Regions			$|z|$
C. satisfaction	E. Asia	vs.	M. East	1.65[ns]	HR practices	E. Asia[H]	vs.	M. East[L]	4.75***
	E. Asia[L]	vs.	Europe[H]	2.23*		E. Asia[H]	vs.	Europe[L]	2.60**
	E. Asia	vs.	N. Am.	1.87[ns]		E. Asia	vs.	N. Am.	0.50[ns]
	E. Asia	vs.	Oceania	0.61[ns]		M. East	vs.	Europe	0.54[ns]
	M. East	vs.	Europe	0.81[ns]		M. East[L]	vs.	N. Am.[H]	4.38***
	M. East	vs.	N. Am.	0.10[ns]		Europe[L]	vs.	N. Am.[H]	2.72**
	M. East	vs.	Oceania	1.15[ns]	Efficiency	E. Asia	vs.	M. East	1.70
	Europe	vs.	N. Am.	1.01[ns]		E. Asia	vs.	Europe	0.46
	Europe	vs.	Oceania	1.82[ns]		E. Asia[H]	vs.	N. Am.[L]	5.12***
	N. Am.	vs.	Oceania	1.31[ns]		E. Asia	vs.	Oceania	0.11
Per. Quality	E. Asia	vs.	M. East	0.88[ns]		M. East	vs.	Europe	1.44
	E. Asia	vs.	Europe	0.27[ns]		M. East	vs.	N. Am.	0.62
	E. Asia	vs.	N. Am.	0.85[ns]		M. East	vs.	Oceania	1.67
	M. East	vs.	Europe	0.68[ns]		Europe[H]	vs.	N. Am.[L]	4.25***
	M. East	vs.	N. Am.	0.10[ns]		Europe	vs.	Oceania	0.38
	Europe	vs.	N. Am.	1.78[ns]		N. Am.[L]	vs.	Oceania[H]	5.36***
Innovation	E. Asia	vs.	M. East	0.03	Org. capa.	E. Asia[L]	vs.	N. Am.[H]	6.48***
	E. Asia	vs.	Europe	0.57		E. Asia[L]	vs.	S. Am.[H]	4.06***
	E. Asia	vs.	N. Am.	0.85		N. Am.[L]	vs.	S. Am.[H]	2.09*
	E. Asia	vs.	Oceania	0.05	Org. SC	E. Asia	vs.	Europe	0.81[ns]
	E. Asia[L]	vs.	S. Am.[H]	8.71***		E. Asia	vs.	N. Am.	1.32[ns]
	M. East	vs.	Europe	0.41		Europe	vs.	N. Am.	0.67[ns]
	M. East	vs.	N. Am.	0.55	Leadership	E. Asia	vs.	Europe	0.31[ns]
	M. East	vs.	Oceania	0.01		E. Asia	vs.	N. Am.	0.50[ns]
	M. East[L]	vs.	S. Am.[H]	5.07***		E. Asia	vs.	Oceania	0.96[ns]
	Europe	vs.	N. Am.	1.25		Europe	vs.	N. Am.	0.66[ns]
	Europe	vs.	Oceania	0.48		Europe	vs.	Oceania	0.89[ns]
	Europe[L]	vs.	S. Am.[H]	6.68***		N. Am.	vs.	Oceania	1.13[ns]
	N. Am.	vs.	Oceania	0.76	E. satisfaction	E. Asia[H]	vs.	N. Am.[L]	3.36***
	N. Am.[L]	vs.	S. Am.[H]	11.91***	Org. comm.	E. Asia[H]	vs.	N. Am.[L]	2.75**
	Oceania[L]	vs.	S. Am.[H]	7.10***		E. Asia	vs.	Oceania	0.80[ns]
Mgmt. support	E. Asia	vs.	N. Am.	1.25[ns]		N. Am.[L]	vs.	Oceania[H]	5.18***
Employee perf.	Europe	vs.	N. Am.	1.57[ns]					

Note: C. satisfaction = customer satisfaction, Per. Quality = perceived quality, Mgmt. support = management support, Employee perf. = employee performance, HR practices = human resource practices, Org. capa. = organizational capabilities, Org. SC = organizational social capital, E. satisfaction = employee satisfaction, Org. comm. = organizational commitment, E. Asia = East Asia M. East = Middle East, N. Am. = North America, S. Am. = South America.
H = significantly higher than the other region, L = significantly lower than the other region based on *z*-tests.
[ns] not significant, *$p < .05$ ($|z| \geq 1.96$), **$p < .01$ ($|z| \geq 2.58$), ***$p < .001$ ($|z| \geq 3.28$).

Table 4
Results of meta-regression for cultures at national level.

Effect sizes	k	N	Moderators				
			Institutional collectivism	In-group collectivism	Humane orientation	Power distance	Uncertainty avoidance
			β	β	β	β	β
Internal perspective							
HR practices → FP	22	5480	-.10[ns]	.06[ns]	.26**	-.04[ns]	-.07[ns]
Innovation → FP	35	8075	-.15[ns]	-.12[ns]	.05[ns]	-.21**	.12[ns]
Efficiency → FP	21	4561	.19[ns]	.11[ns]	-.15[ns]	-.04[ns]	-.30[ns]
Organizational capabilities → FP	8	1244	.57[ns]	.06[ns]	-.35*	-.28[ns]	-.34*
Learning and growth perspective							
Employeesatisfaction → FP	12	4679	.50**	.15**	.35[ns]	-.38*	.36*
Organizational commitment → FP	10	2458	.35**	.17[ns]	-.36[ns]	.09[ns]	-.26[ns]

Note: FP = firm performance; β = standardized regression coefficients, representing the size of effect of scores of cultural dimensions from the GLOBE Project on correlations between firm performance and its antecedents.
[ns] not significant, *$p < .05$, **$p < .01$.

Through the integrative examination of the meta-analytic results for the relationships between firm performance and its antecedents, three interesting result patterns emerged from the three balanced scorecard's perspectives (i.e., customer, internal, and learning and growth). First, the overall results indicate that antecedents from an internal perspective are relatively more closely related to firms' performance than those of both customer perspectives and learning and growth perspectives. Previous research found that even though the most influential factors directly influencing firms' financial performance were under the customer perspective, the internal perspective was the only one that positively affected each one of the perspectives (Chen et al., 2011). A recent study also argued that every perspective's ultimate purpose is to, directly and indirectly, increase firms' financial performance (Fatima & Elbanna, in press). The meta-analytic results of this study may be similar to the results of the inter-causal relationships among the perspectives conducted by Chen et al. (2011). Second, in terms of the number of studies conducted, the most investigated antecedents of hospitality and tourism firms' performance were from the customer perspective. Correspondingly, almost all firm performance dimensions (i.e., accounting, market, and operational performance as objective measures, and financial and non-financial assessment as subjective measures) were extensively examined. More specifically, although previous hospitality

and tourism research on financial performance examined various aspects of antecedents of firm performance from the internal perspective, the research seems to have experienced difficulty connecting them to the objective measures of firm performance (Sainaghi, Phillips, & d'Angella, 2019). Lastly, the investigated antecedents of firm performance tended to be more closely related to subjective measures than objective measures of firm performance. Both subjective and objective measures of firm performance have been actively used in previous research on predictors of hospitality and tourism firms' performance (Sainaghi, 2010). As previous studies suggested, this study included the differentiation in firm performance between subjective and objective measures, enabling the capture of the pattern. Moreover, following previous studies' suggestions, this study could generalize our results through aggregating the subjective and objective measures of firm performance because while objective measures of performance may not be able to capture the complexity of firm performance extensively, subjective measures can compensate for the drawback of the objective measure (Andrews et al., 2010; Dawes, 1999; Wall et al., 2004).

5.1. Theoretical contributions

This study's key theoretical contribution lies in its reliable conclusions about relationships between hospitality and tourism firms' performance and antecedents upon estimating mean true-score correlations. While the hospitality and tourism firms' performance literature has explored an array of relevant predictors, these predictors have not been synthesized. This paper refined relevant studies' findings and enriched the literature by offering meta-analytic results. In doing so, this study answered calls to apply statistical procedures to systematically review relationships (Fatima & Elbanna, in press; Sainaghi, 2010).

This study also enhances the financial management literature. Kaplan and Norton (2004) noted the challenges in explicitly visualizing the impact of operational performance on financial performance. The present study delineates the effects of various dimensions of hospitality and tourism firms' performance derived from strategic and human resource management research. Additionally, Tsai et al. (2011) suggested that hospitality financial management studies be conducted worldwide to provide more exhaustive knowledge. The current study broadened the understanding of cultural effects in this field.

5.2. Practical implications

This study's findings provide meaningful implications. From a customer perspective, customer satisfaction appears to have a larger effect size on hospitality and tourism firms' performance than perceived quality. This is not to say that perceived quality should be neglected; rather, it is essential to foster customer satisfaction through improved service quality along with other critical customer perceptions (e.g., value and brand image) (Wu, 2011). From an internal perspective, the three most prominent determinants of hospitality and tourism firms' performance are organizational capabilities, efficiency, and management support. Hospitality and tourism firms' capabilities to manage knowledge by facilitating its absorption and application enable firms to gain a competitive advantage and improve their performance (Kale et al., 2020), highlighting the importance of knowledge management strategies. When building these capabilities, hospitality and tourism firms can benefit from access to external knowledge (e.g., cooperation with other firms) (Wilke et al., 2019). Improved efficiency through an emphasis on cost leadership is similarly critical to maximize firm performance. Accordingly, hospitality and tourism firms must scrutinize their cost structure to mitigate unnecessary costs (Lee et al., 2015). Furthermore, when hospitality and tourism employees feel supported by their organizations, they engage in positive behavior that shapes firm performance (Susskind et al., 2018; Yadegardehkordi et al., 2018).

Based on organizational commitment findings from a learning and growth perspective, employees' attitudes or perceptions are more fundamental to hospitality and tourism firms' performance than employees' behavior; in other words, employees' behavior manifests from attitudes. hospitality and tourism firms should therefore strive to improve employees' internal state (i.e., attitudes and perceptions). Hospitality and tourism firms may also cease to manipulate employees' behavior to be more productive, efficient, or customer-oriented, as such behavior comes naturally when employees exhibit corresponding attitudes. Lastly, from a learning and growth perspective, influential factors affecting hospitality and tourism firms' performance (besides organizational commitment) were organizational social capital and leadership. Building substantial organizational social capital through employees' collective internalization of shared organizational goals can generate far-reaching effects on firm performance (Leana & Van Buren, 1999; Leonidou et al., 2015). Encouraging cooperation, interaction, value–mission alignment, and trust among employees can enhance hospitality and tourism firms' social structure. These actions can be further stimulated by proper leadership, namely through sharing clear organizational goals across employee levels. Similar to the findings related to management support from an internal perspective, the roles of top management are paramount to hospitality and tourism firms' performance. In particular, employees' recognition of their inclusion in decision-making processes and empowerment can improve workers' commitment, satisfaction, and performance (Patiar & Mia, 2013).

This research also examined the moderating role of culture in these relationships and pinpointed seven affected antecedents: customer satisfaction, human resource practices, innovation, efficiency, organizational capabilities, employee satisfaction, and organizational commitment. From a customer perspective, all continental-level cross-cultural comparisons (except for one customer satisfaction relationship: Europe vs. East Asia) were not significant. Customers' perceived service quality and satisfaction thus appear equally crucial to hospitality and tourism firms' performance regardless of culture.

From an internal perspective, human resource practices were more closely linked to hospitality and tourism firms' performance in East Asia and North America than in Europe and the Middle East. East Asian and North American firms should hence emphasize human resource practices (e.g., hiring, selection, arrangement, rotation, and training) and policies (e.g., fair compensation and promotion opportunities). As anticipated, the relationship between human resource practices and firm performance tended to be stronger in countries with a highly humane orientation. In countries that value relationships, firms should seek to enhance their human resource practices and policies. Innovation influenced firm performance more strongly in South American firms than in other regions. Therefore, when hospitality and tourism firms expand their international business to South America, they should highlight innovative operation processes. Moreover, as predicted, the effect of innovation on firm performance diminished as national levels of power distance increased. To innovate, firms should eliminate barriers caused by hierarchical organizational structures. Firms in East Asia and Europe, where many countries are clustered, should seek to improve their operational efficiency based on cost (expense) cutting and restructuring. For this particular relationship, no cultural dimension was identified as a moderator. Hospitality and tourism organizations in North and South America should emphasize organizational capabilities to absorb external knowledge and apply it to their businesses. This study also revealed interesting meta-regression results on this topic. In national cultures where a humane orientation and uncertainty avoidance are high, firms experience fewer positive effects of organizational capabilities on performance. In other words, in cultures where employees consider fairness and kindness less important, organizational capabilities are more strongly related to firm performance. In cultures where employees do not prefer consistent and organized daily lives, organizational capabilities are more closely linked to firm performance.

Additionally, employees' attitudes (i.e., organizational commitment and satisfaction) were more closely tied to hospitality and tourism firms' performance in East Asia than in North America, highlighting the

importance of attending to Asian employees' internal states. Among examined cultural dimensions, four dimensions moderated this relationship. As expected, the associations between employee satisfaction and organizational commitment with firm performance tended to be stronger as cultural collectivism increased. Conversely, the correlation between employee satisfaction and firm performance became weaker as cultural power distance increased. Training programs for employees are thus suggested to enhance workers' knowledge, skills, and abilities and to spur work-related motivation. In turn, employees' attitudes and orientation toward their organizations and work should become more positive.

5.3. Limitations and directions for future research

Although these meta-analytic findings contribute to the strategic management literature, as with any meta-analytic research, this study has limitations that should be considered. First, 14 antecedents of hospitality and tourism firms' performance were proposed. Antecedents representing characteristics of specific strategic initiatives (e.g., branding, diversification, franchising, and internationalization) and human resource practices (e.g., training, job design, recruitment, wellness, and incentives) should be addressed in subsequent meta-analyses. Second, studies adopting the balanced scorecard have argued for cause-and-effect relationships among the four perspectives (Kaplan & Norton, 2004) and were cumulative (Tayler, 2010); however, this study focused on individual relationships between firm performance and the remaining three perspectives. Future meta-analytic research should include interrelationships among these three perspectives. Also, if intercorrelations among the three perspectives can be identified, then meta-analytic regression can be used to assess the causal-chain framework of the balanced scorecard approach. Third, financial performance is often considered a lagged indicator. This study did not differentiate between studies that used time-lagged measures for financial performance from those that did not. Future work could include studies that assessed relationships based on the operational measures of a fiscal year and firms' financial performance in the following year. Lastly, due to a paucity of primary independent studies that objectively evaluated firm performance, this study could not thoroughly meta-analytically compare the effect of culture in relationships. Future meta-analytic studies should incorporate more primary research to provide comprehensive results.

Impact statement

This research is the first to quantitatively meta-analyze the relationships between hospitality and tourism firms' performance and its antecedents. Given the ongoing interest in examining predictors of hospitality and tourism firms' performance, this current study provides a reliable and generalized conclusion into the determinants of hospitality and tourism firms' performance by presenting meta-analytic findings. In doing so, this study categorized firm performance into five dimensions to comprehensively capture various aspects of firm performance and their relationship with each proposed predictor. The hospitality and tourism industry has a nature of being international, highlighting the vital role of international business expansions and operations. This study generates extensive insights into diverse cultural effects on the relationships between hospitality and tourism firms' performance and its antecedents for industry practitioners. Based on meta-analytic findings of this study, hospitality and tourism firms can implement culturally differentiated strategies and internal process enhancement.

Credit author statement

SangGon (Edward) Lim contributed to the main conceptual ideas and framework, conducted meta-analytic procedures, and wrote the

manuscript. **Chihyung "Michael" Ok** contributed to developing the conceptual framework, data coding/review, and writing the manuscript. All authors contributed to the final manuscript.

Declarations of competing interest

None.

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