



A meta-analysis of the impact of social media content strategies: the moderating role of culture

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Received: 6 January 2025 / Revised: 24 March 2026 / Accepted: 7 April 2026
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Abstract

Social media has become a strategic tool for firms worldwide to drive customer engagement (CE) and enhance business performance, yet limited research has systematically examined how social media content strategies (SMCSs) perform across cultural contexts. To address this gap, we conceptualize SMCS along three key dimensions—content characteristics, content source, and content valence—and develop a meta-analytic model grounded in signaling theory. Drawing on 148 empirical studies comprising 869 effect sizes, we examine the mediating role of CE, through which these content dimensions indirectly impact brand, product-market, and financial market performance. We also assess how national cultural values (i.e., individualism, uncertainty avoidance, power distance, masculinity, long-term orientation, and indulgence) moderate the content–engagement link. The findings reveal that CE serves as a key mechanism linking SMCSs to firm performance. Moreover, the strength and direction of these effects vary systematically across cultural values, highlighting important boundary conditions caused by national culture for social media content effectiveness. This study advances research at the intersection of social media and international business by providing a systematic cross-cultural account of how digital content strategies translate into engagement and performance outcomes.

Keywords Social media content strategy · Customer engagement · National culture · Firm performance · Signaling theory · Meta-analysis

Introduction

With the rapid growth of social media in recent years, companies increasingly invest in social media marketing to build stronger customer relationships and foster customer

engagement (CE) (Li et al., 2021). As social media enables real-time interactions and personalized communications, businesses are shifting their focus beyond transactional exchanges to prioritize emotional engagement and long-term relationship building with customers (Farace et al., 2026). Among these efforts, social media content marketing stands out as a powerful tool, designed to deliver relevant, valuable, and resonant content to users (Yang et al., 2025). By facilitating interactions such as likes and comments, content marketing plays a critical role in shaping customer perceptions, stimulating CE, and ultimately enhancing business performance (Salonen et al., 2024). Yet despite numerous studies examining these associations (e.g., Kumar et al., 2016; Meire et al., 2019), the underlying mechanisms remain conceptually fragmented and empirically inconsistent.

In particular, the literature offers limited clarity on which *types of content* are most effective. While some studies (e.g., Akpınar & Berger, 2017; Berger & Milkman, 2012) highlight the viral potential of emotional appeals, others (e.g., Swani et al., 2017; Wahid et al., 2023) show that informational content performs better in high-involvement contexts.

Accepted by Chris Baumann, Consulting Editor, 7 April 2026. This article has been with the authors for four revisions.

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Similar inconsistencies exist in research on the effectiveness of *content source*, mainly when comparing firm-generated content (FGC) and user-generated content (UGC). For instance, while FGC has been linked to higher offline sales in the automotive industry, where authority and detailed product information are valued (Wang et al., 2021), UGC is viewed as more credible and persuasive in contexts such as financial services (Wang & McCarthy, 2021). Findings on *content valence* also show that positive content is typically linked to favorable CE outcomes and improved brand perceptions, while negative content sometimes generates more interactions and even drives conversion (Christodoulides et al., 2012; Yang et al., 2019). Such mixed findings become even more pronounced in the international business context, where cultural differences across markets play an important role in shaping how individuals interpret and respond to social media content. For example, emotional appeals were reported to resonate more among Western audiences (Akpinar & Berger, 2017), while informational content has been shown to be more effective in Asian markets (Wahid et al., 2023).

These disparate results highlight the fragmented nature of extant research on social media content strategies (SMCSs)—firms' marketing approaches to creating and disseminating content on social media platforms. While previous studies have linked social media activities to CE and performance outcomes in a general sense, the conceptually fragmented and empirically inconsistent evidence may be due in part to the limitation of studying social media content features in isolation from one another and ignoring (or only partially considering) the role of cultural effects. As social media are inherently global, strategies that succeed in one cultural environment may fail in another. In the absence of a thorough synthesis of extant work, scholars lack a coherent theoretical understanding of how content strategies operate across contexts, and managers risk deploying content ineffectively in international markets.

To address these gaps, this study employs a theoretically grounded meta-analysis focusing on how SMCSs influence firm performance through CE. Drawing on signaling theory (Spence, 1973), we conceptualize SMCSs as operating through a set of content-level signals that shape how consumers interpret brand messages, engage with content, and respond behaviorally to yield certain performance results (Katsikeas et al., 2016). Specifically, the purpose of our study is to (1) identify the distinct dimensions of SMCSs—content type, source, and valence—and assess their importance; (2) investigate CE's role in mediating the connections of different SMCSs to various performance outcomes pertaining to brand, product-market, and financial market; and (3) examine how Hofstede's cultural dimensions moderate the effects of various SMCSs.

Our study makes three key contributions. First, we develop a novel conceptualization of SMCSs grounded in signaling theory. We conceptualize SMCSs as operating through a structured signal system comprising three interrelated dimensions: the framing of the message (*content characteristics*), the credibility of its source (*content source*), and the sentiment it conveys (*content valence*). This integrated perspective advances signaling theory by shifting attention from individual cues to the configuration of signals through which firms communicate intent, credibility, and meaning across social media and cultural contexts.

Second, we develop and empirically test a meta-analytic process model that positions CE as a mediating mechanism through which content signals are translated into brand, product-market, and financial market outcomes for the firm. This approach advances previous studies that have treated CE primarily as an endpoint by demonstrating its mediating role in translating content strategies into tangible performance results. Therefore, we offer a more expansive and causally coherent view of how social media communication generates strategic value and clarify why different signal configurations activate CE through distinct signal cues.

Third, we contribute to international business research by systematically examining how cultural values shape the effectiveness of SMCSs. While prior research has acknowledged the importance of cultural differences in social media engagement, it often relies on broad country comparisons or examines a limited set of cultural dimensions, leading to fragmented and sometimes ambiguous insights. By employing the full array of Hofstede et al.'s (2010) dimensions, we provide a more comprehensive account of how cultural contexts condition the effectiveness of SMCSs in stimulating CE and, in turn, enhancing performance. This approach helps reconcile inconsistencies arising from examining dimensions in isolation and offers actionable guidance to firms for managing their SMCSs across diverse international markets.

Toward a conceptualization of SMCS

Content marketing has emerged as a dominant communication strategy in the digital era, marking a shift from transactional advertising toward value-based engagement and relationship building. Instead of “pushing” sales-driven messages, content marketing aims to “pull” customers by delivering relevant and meaningful content that addresses their needs and interests (Holliman & Rowley, 2014). Digital content marketing involves creating and sharing valuable brand-related content on digital platforms to foster engagement and trusting relationships (Hollebeek & Macky, 2019). As digital users become more selective and empowered, the

success of content marketing depends not just on what is said, but on how it is framed, delivered, and perceived.

Content development and delivery are central to effective content marketing, especially when operating synergistically. For example, well-aligned visual design of textual elements within content can significantly affect engagement (Farace et al., 2026), while incorporating timing, network seeding, and contextual fit further improves effectiveness. Platform choice and customer journey stage also affect how consumers receive and interpret messages (Salonen et al., 2024). Equally important is how audiences engage with content once delivered. Rather than passively consuming messages, customers actively process, interpret, and share these messages within their networks, transforming simple exposure into brand advocates, enhancing customer lifetime value and firm performance outcomes (Katsikeas et al., 2016; Kumar et al., 2010).

Despite these developments, much of the literature still defines content marketing primarily in terms of firms' content creation and delivery, overlooking customers' role as co-creators in social media contexts. This firm-centric view limits understanding of value creation, treating it as firm-driven rather than collaborative. Yet content marketing fundamentally relies on delivering "valuable" content (Holli-man & Rowley, 2014), with value often co-created through customer-to-customer interactions (Pansari & Kumar, 2017). Social media in particular has introduced a complex, participatory environment, where customers not only consume but also interpret, share, and generate content that shapes broader brand narratives (Li et al., 2021). This shift calls for a more collaborative conceptualization of content marketing that accounts for both firm-initiated and customer-driven contributions to value creation.

Building on these arguments, we define SMCS as "a marketing approach focusing on creating, distributing, and optimizing platform-adapted content on social media, developed either by the firm or in collaboration with customers, to facilitate value exchange and co-creation through CE." This definition comprises three core elements: (1) it includes firm- and user-led activities related to content creation, dissemination, and refinement; (2) it reflects the dual role of customers as both content consumers and contributors, whose participation can be direct (e.g., creating content) or indirect (e.g., reacting to content); and (3) it emphasizes that value arises not only from firm-initiated content communication but also from interactions among users, which include both value exchange and value co-creation.

Theoretical background and conceptual model

Our study is anchored in signaling theory (Spence, 1973), which explains how parties reduce information asymmetry by sending and interpreting signals in uncertain environments. This perspective is particularly relevant in social media contexts, where audiences rely on content-based cues to infer brand quality, source credibility, and communicative intent in the absence of complete information (Lin & Kalwani, 2018). Signaling theory is well suited to explain how multiple content cues jointly shape credibility and meaning. It allows us to conceptualize social media content not merely as persuasive stimuli or informative messages, but more broadly as strategic signals whose effectiveness depends on how audiences decode intent, legitimacy, and diagnostic value across various contexts.

From this perspective, social media content functions as a strategic signal, intentionally crafted to influence user perceptions and interactions by conveying a brand's credibility and authenticity through message design. These signals are not merely transmitted and received in a linear fashion but are processed as part of a broader "signal set" comprising multiple, interdependent elements that collectively shape message interpretation (Drover et al., 2018). In addition, social validation mechanisms (e.g., likes, comments) serve as cues for social approval and popularity, further amplifying the perceived strength of the signal and enhancing its impact on customer attitudes and brand evaluations (Li & Wu, 2018).

Within this signaling framework, we conceptualize a firm's SMCS as operating through a structured system of content-level signals, comprising three primary dimensions: content characteristics (*what* is communicated), content source (*who* communicates it), and content valence (*how* it is expressed). *Content characteristics* refer to the intrinsic message features, such as its informativeness, emotional appeals, and storytelling style, which influence how audiences interpret and respond to brand communications (Wahid et al., 2023). *Content source* is the origin of the message, whether firm- or user-generated, with each carrying different levels of credibility and authenticity (Tyrväinen et al., 2023). *Content valence* captures the positive or negative sentiment expressed in the content, serving as a diagnostic signal that shapes consumer perceptions of product quality and brand trust (Lin & Kalwani, 2018).

Importantly, these content-level signals are conceptually distinct from various social media executional elements, such as interactivity, personalization, and platform fit, which can influence content effectiveness without altering its core meaning. Signals are not evaluated in isolation but rather are filtered through receivers' interpretive frameworks (Drover



et al., 2018). Their effectiveness depends not only on content quality but also on the receiver's prior knowledge, perceived relevance, and personal background. More importantly, culture further shapes how signals are interpreted, adding an additional layer of complexity to the communication process (Akdeniz & Talay, 2013; Shenkar, 2025). For example, evidence suggests that in high-uncertainty-avoidance cultures, consumers tend to rely more on structured and widely endorsed signals when making purchase decisions (Lin & Kalwani, 2018). This highlights the importance of tailoring SMCSs to the cultural nuances of each foreign market.

The preceding argumentation provides the foundation for the conceptual model (see Fig. 1), which posits that the three core components of SMCS (i.e., characteristics, source, and valence) serve as strategic signals that influence CE, with CE subsequently mediating the relationship between SMCS and firm performance outcomes (i.e., brand, product-market, and financial market performance). Drawing on Hofstede et al. (2010), we further propose that the associations between each SMCS component and CE are moderated by national cultural dimensions, which shape how social media signals are interpreted.

Hypotheses development

Our model contains seven hypotheses, one focusing on CE's mediating role and six on moderating effects of cultural dimensions. We begin with a discussion of SMCS and CE and then outline how CE relates to performance, which

underpins the mediation hypothesis. We then introduce the proposed moderation effects. Online Appendix 1 outlines the core logic underlying the hypotheses.

SMCS and CE

Content characteristics are the intrinsic attributes of the message (Wahid et al., 2023). From a signaling perspective, they provide central cues about a brand's value and relevance, shaping how the message is interpreted and acted upon. Two dominant types are informational and emotional (Meire et al., 2019). Informational content conveys factual and utilitarian messages (e.g., product attributes, prices), signaling quality assurance and expert knowledge while reducing uncertainty, particularly in complex purchase decisions (Tellis et al., 2019). Such information helps buyers make more informed decisions, thus increasing CE (Wahid et al., 2023). In contrast, emotional content acts as an affective signal, using elements such as storytelling or humor to evoke emotional responses and encourage social sharing, thereby driving engagement and brand outcomes (Akpınar & Berger, 2017).

Content source represents the origin of the message (FGC vs. UGC) and serves as a credibility signal that affects how the message is perceived and evaluated (Tyrväinen et al., 2023). FGC, created by brands, emphasizes consistency and professionalism, signaling expertise and reliability that support cognitive engagement (Meire et al., 2019). Conversely, UGC reflects authentic customer experiences and serves as social proof, reducing uncertainty and building

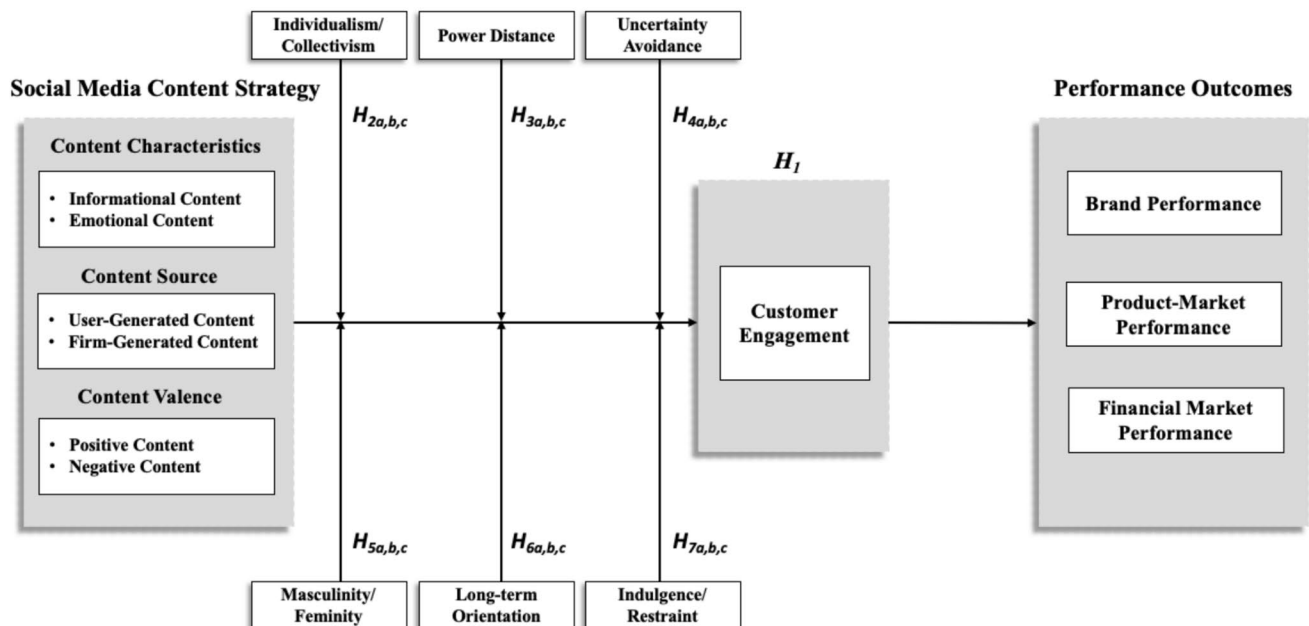


Fig. 1 Conceptual model



trust through peer endorsement (Li & Wu, 2018). Examples such as reviews and testimonials provide relatable, firsthand insights that foster both cognitive and emotional engagement (Viswanathan et al., 2018).

Content valence captures the sentiment expressed in a message (positive or negative) and can act as a diagnostic signal that helps customers evaluate brand quality and trustworthiness (Lin & Kalwani, 2018). Positive valence typically signals satisfaction and approval, reducing uncertainty and encouraging engagement, often creating a reinforcing cycle of positive interactions (Yang et al., 2019). Negative valence can also stimulate CE by triggering more analytical processing and deeper involvement, as it is often considered more diagnostic due to its detailed and critical nature, particularly in contexts involving risk or controversy (Christodoulides et al., 2012).

The mediating role of CE

CE is widely recognized as a strategic imperative for firms seeking to build enduring customer relationships and create sustainable value (Kumar et al., 2010). It captures the intensity of customers' cognitive, emotional, and behavioral investment in brand-related interactions (Brodie et al., 2011). Activities such as sharing and commenting transform customers from passive recipients into active participants, generating both direct and indirect value for firms and transforming individual interactions into broader network effects that extend the influence of content strategies (Hollebeek & Macky, 2019).

From a signaling perspective, SMCSs—through their characteristics, source, and valence—stimulate CE by conveying processing, credibility, and evaluative cues. Importantly, each SMCS dimension operates through a distinct signaling logic that stimulates different forms of engagement. Content characteristics encourage cognitive and affective engagement by shaping how audiences process information. While informational content supports analytical evaluation and uncertainty reduction, emotional content fosters psychological resonance and emotional bonding (Tellis et al., 2019). Engagement thus reflects the alignment of informational or emotional cues with audience processing orientation (e.g., cognitive elaboration or affective immersion), rather than the sheer volume of these cues. Content source differentiates engagement based on perceived credibility, with UGC signaling authenticity and social proof and FGC signaling expertise and authority (Colicev et al., 2019). These source-based signals shape audience interpretations of perceived message reliability (e.g., institutional authority or peer authenticity), thereby influencing CE. Content valence shapes users' evaluative orientation, as positive content provides reassurance and validation while negative content invites scrutiny and critical assessment (Christodoulides

et al., 2012). Accordingly, valence-based signal cues orient CE responses (e.g., toward affirmation and validation or scrutiny and critical assessment).

CE thus functions as a mediating mechanism, which translates SMCS signals into firm performance. At the *brand* level, CE enhances brand performance, as content consumption builds awareness while content contribution (e.g., sharing, commenting) reinforces associations and strengthens loyalty (Mishra, 2019). At the *product-market* level, CE drives sales and revenue growth, as follower growth and deeper customer interactions extend brand visibility and support conversion (Kumar et al., 2016). At the *financial market* level, active CE behaviors (e.g., likes, retweets) provide real-time signals of market value reflecting investor confidence, which positively impact stock performance and shareholder value (Beckers et al., 2018). Hence, we posit that:

Hypothesis 1: Each dimension of SMCS (content characteristics, source, and valence) positively influences CE, which in turn enhances (a) brand performance, (b) product-market performance, and (c) financial market performance. Thus, CE mediates the relationships between these dimensions and performance outcomes.

The moderating role of cultural values

National culture, often conceptualized as shared value orientations at the country level, comprises six key dimensions: individualism/collectivism, uncertainty avoidance, power distance, masculinity/femininity, long-term orientation, and indulgence/restraint (Hofstede et al., 2010). While widely used in international business research, these dimensions represent country-level tendencies rather than uniform characteristics of all individuals within a society (Tung & Verbeke, 2010). In this study, we therefore treat cultural values as contextual factors at the national level that shape how SMCSs are interpreted and responded to across different environments. These are proposed to moderate the links between SMCSs and CE.

Individualism/collectivism

Individualism reflects the degree to which individuals prioritize personal interests and goals over group norms (Hofstede, 1980). In accordance with signaling theory, content characteristics act as strategic cues that guide consumer interpretation (Berger & Milkman, 2012). In individualistic cultures, consumers are more attuned to signals that reinforce self-expression and emotional relevance, making emotional content more effective in driving engagement. In contrast, collectivistic cultures value group harmony and shared goals, leading them to favor information content that signals utility or social alignment (Kitirattakarn et al.,



2019). Therefore, as individualism increases, emotional content is more likely to outperform informational content in stimulating CE. We thus advance the following hypothesis:

Hypothesis 2a: The higher a society's level of individualism, the stronger the impact of emotional content compared with that of informational content on CE.

Cultural orientation also shapes how consumers evaluate content source signals. From a signaling perspective, source credibility is inferred from the sender's perceived intent, expertise, and relatability (Drover et al., 2018). In individualistic cultures, where autonomy and self-expression are core values, consumers are more receptive to UGC because it signals authenticity and peer alignment. The informal and user-driven nature of UGC enhances credibility by signaling independent judgment and providing relatable experiences (Christodoulides et al., 2012). In contrast, FGC, which is more structured and brand-controlled, may be less persuasive in individualistic contexts due to its institutional tone and perceived lack of authenticity (Meire et al., 2019). We thus propose that:

Hypothesis 2b: The higher a society's level of individualism, the stronger the impact of UGC compared with that of FGC on CE.

Content valence acts as a signal conveying emotional tone and diagnostic value. In individualistic societies, where openness and assertiveness are encouraged, negative valence (e.g., critique, complaints) may signal transparency and issue relevance, thereby prompting stronger user involvement (Li & Wu, 2018). In contrast, collectivistic cultures tend to discourage conflict and seek to maintain social harmony. As a result, negative content is less likely to be expressed publicly, as such expression may disrupt harmony and is often suppressed in social interactions (Swanson et al., 2011). Positive content, by signaling relational alignment and shared norms, aligns more closely with collectivist values and is therefore more likely to foster engagement through supportive and affiliative behaviors. Based on this logic, we hypothesize the following:

Hypothesis 2c: The higher a society's level of individualism, the stronger the impact of negative content compared with that of positive content on CE.

Power distance

Power distance reflects the extent to which a society accepts unequal power distribution (Hofstede, 1980). In high-power-distance cultures, individuals tend to accept hierarchical structures and defer to authority, often equating expertise

with status and institutional credibility. From a signaling perspective, informational content, characterized by structured, fact-based communication, can serve as authoritative signal aligned with values of deference and formalism (Filieri, 2015). Such content is more persuasive in high-power-distance cultures, where individuals actively seek reliable, expert-driven information to guide decision-making and reinforce social order. Conversely, in low-power-distance societies, where egalitarianism and openness prevail, emotional content resonates more strongly as it reflects norms of equality and interpersonal connection (Hofstede et al., 2010). Accordingly, we propose that:

Hypothesis 3a: The higher a society's level of power distance, the stronger the impact of informational content compared with that of emotional content on CE.

Power distance also shapes how the content source is evaluated. From a signaling perspective, the source acts as a credibility cue interpreted through perceived expertise and authority (Drover et al., 2018). In high-power-distance cultures, individuals tend to place greater trust in authoritative, institutional sources, viewing FGC as more legitimate and aligned with hierarchical norms. This reflects a cultural emphasis on status and expertise, such that individuals seek content that reinforces accepted power structures and reduces uncertainty (Hofstede et al., 2010). In contrast, low power-distance cultures encourage horizontal communication and personal autonomy, making peer-driven UGC a more effective engagement tool due to its authenticity and relatability. Thus, we hypothesize the following:

Hypothesis 3b: The higher a society's level of power distance, the stronger the impact of FGC compared with that of UGC on CE.

Content valence also functions as a signal that reflects both message tone and the perceived social acceptability of critique. In low-power-distance societies, where individuals value equality and open communication, negative content is more likely to elicit active responses, as individuals are more willing to engage in voice behaviors and express dissatisfaction toward firms (Swanson et al., 2011). In contrast, in high-power-distance cultures, consumers tend to rely on a broader set of information sources and place less weight on any single review, making them less responsive to negative content (Nath et al., 2018). As a result, positive content is likely to be more effective than negative content in generating CE in such contexts. Therefore, we advance that:

Hypothesis 3c: The higher a society's level of power distance is, the stronger the impact of positive content compared with that of negative content on CE.



Uncertainty avoidance

Uncertainty avoidance refers to the extent to which individuals feel threatened by ambiguity and strive to avoid uncertainty (Hofstede et al., 2010). From a signaling theory perspective, social media content serves as a signal that reduces uncertainty and aids interpretation. In high-uncertainty-avoidance cultures, individuals are particularly attuned to signals that reduce risk and provide emotional reassurance. While informational content offers clarity, it may not fully address the emotional discomfort associated with uncertainty (Lin et al., 2017). Emotional content, in contrast, can evoke trust, social validation, and affective resonance, especially when embedded in familiar, community-oriented narratives (Berger & Milkman, 2012). As such, emotional content can serve as a coping mechanism under uncertainty, helping individuals feel secure via emotional alignment rather than solely through rational clarity. Thus, we hypothesize that:

Hypothesis 4a: The higher a society's level of uncertainty avoidance, the stronger the impact of emotional content compared with that of informational content on CE.

Content source also acts as a key signal of message reliability. In high-uncertainty-avoidance cultures, individuals tend to rely on collective knowledge and external validation to mitigate perceived risk, making UGC a particularly compelling signal (Lin & Kalwani, 2018). By providing context-rich and socially validated insights, UGC helps reduce information asymmetry and is often perceived as more credible and trustworthy in uncertain or complex decisions (Filieri, 2015). In contrast, FGC, often seen as promotional and potentially biased, may be discounted unless supported by strong evidence or third-party endorsements. Consequently, in high-uncertainty-avoidance contexts, UGC is likely to exert a stronger impact on CE than FGC. This leads to the following hypothesis:

Hypothesis 4b: The higher a society's level of uncertainty avoidance, the stronger the impact of UGC compared with that of FGC on CE.

Content valence plays an important role in shaping consumer responses to brand messages under different levels of uncertainty avoidance. From a signaling theory standpoint, positive content (e.g., affirming messages, optimistic narratives, reassuring brand communications) offers clarity, stability, and psychological comfort, which aligns with consumers' desire to reduce perceived risk and uncertainty (Lin et al., 2017). Such content may signal brand reliability and predictability, making it more persuasive and engaging in these cultural contexts. In contrast, negative content

may evoke discomfort or be interpreted as destabilizing or dissonant, thereby reducing engagement among individuals who are averse to ambiguity or confrontation. Accordingly, we hypothesize that:

Hypothesis 4c: The higher a society's level of uncertainty avoidance, the stronger the impact of positive content compared with that of negative content on CE.

Masculinity/femininity

Masculinity/femininity captures the extent to which a culture emphasizes assertiveness, achievement, and material success (masculine values) versus modesty, care, and interpersonal harmony (feminine values) (Hofstede, 1980). According to signaling theory, content interpretation reflects whether audiences prioritize competitive achievement or relational harmony. In more masculine cultures, individuals are more likely to respond to informational content that points to functionality and performance, as such cues align with goal-oriented values (Chang, 2006). In contrast, consumers in feminine cultures are more responsive to emotionally resonant messages that stress empathy and shared experiences. Accordingly, we hypothesize the following:

Hypothesis 5a: The higher a society's level of masculinity, the stronger the impact of informational content compared with that of emotional content on CE.

Content sources also interact with cultural values to shape customer perceptions. In masculine cultures, where achievement and performance are emphasized, individuals are more responsive to signals that convey competence and professionalism (Chang, 2006). FGC, which is strategically crafted and professionally presented, aligns with these values by signaling expertise and performance credibility (Kumar et al., 2016). As a result, FGC is more likely to be perceived as a relevant and persuasive signal in such contexts. In contrast, UGC, while often perceived as authentic, is typically informal and less controlled, which may reduce its perceived authority and reliability in performance-oriented contexts (Filieri, 2015). Thus, we advance the following hypothesis:

Hypothesis 5b: The higher a society's level of masculinity, the stronger the impact of FGC compared with that of UGC on CE.

Content valence is also filtered through cultural norms about emotional expression and conflict tolerance. In masculine societies, individuals are more assertive and competitive and thus are more likely to express dissatisfaction or share their critical evaluations. In these societies, negative content is interpreted as a strong signal that reveals service



failure, unmet expectations, or brand weaknesses, prompting heightened audience response through complaint behaviors or brand switching (Swanson et al., 2011). In feminine cultures, social harmony and emotional sensitivity are prioritized, leading individuals to suppress overtly negative reactions. As a result, negative content may generate less engagement or be avoided altogether to maintain relational balance. Accordingly, we hypothesize that:

Hypothesis 5c: The higher a society's level of masculinity, the stronger the impact of negative content compared with that of positive content on CE.

Long-term orientation

Long-term orientation reflects a society's tendency to prioritize future rewards, perseverance, and relational harmony over immediate gratification (Hofstede et al., 2010). Based on signaling theory, emotionally rich content that highlights values such as persistence or shared purpose is particularly effective in long-term-oriented cultures, as it aligns with future-oriented motivations (Alcántara-Pilar et al., 2017). In contrast, informational content may be perceived as overly transactional or limited in narrative depth, making it less effective for audiences that prioritize long-term benefits. Thus, in long-term-oriented cultures, emotional messages can carry stronger persuasive weight than informational content. Hence, we propose that:

Hypothesis 6a: The higher a society's level of long-term orientation, the stronger the impact of emotional content compared with that of informational content on CE.

People in long-term-oriented societies tend to avoid or minimize any risks that may affect their future. This risk-averse nature fosters a more positive attitude toward structured, credible information that facilitates well-informed decisions over time (Lam et al., 2009). Additionally, individuals in long-term-oriented cultures are more likely to spend time searching for and processing detailed information on social media to make well-informed decisions (Chiu et al., 2019). From a signaling standpoint, FGC aligns with their need to reduce uncertainty and maximize long-term value. These behaviors contrast with individuals in short-term-oriented cultures, who tend to rely more heavily on interpersonal sources of information such as UGC. Accordingly, we propose the following:

Hypothesis 6b: The higher a society's level of long-term orientation, the stronger the impact of FGC compared with that of UGC on CE.

In line with signaling theory, negative content can function as a meaningful signal of diagnostic value, since consumers often perceive negative information as more informative for evaluating product quality (Filieri, 2015). In long-term-oriented cultures, where individuals emphasize future outcomes and learning (Hofstede et al., 2010), such signals may be interpreted not as disruptive but as constructive feedback that supports improvement and more resilient brand relationships. Conversely, in short-term-oriented cultures, where individuals prioritize immediate outcomes, negative content may be discounted or avoided due to its perceived social and psychological costs. Thus, individuals in long-term-oriented cultures are more likely to incorporate negative content into their evaluations and decision-making processes. Accordingly, we hypothesize that:

Hypothesis 6c: The higher a society's level of long-term orientation, the stronger the impact of negative content compared with that of positive content on CE.

Indulgence/restraint

Indulgence/restraint describes the extent to which cultures allow or suppress the gratification of desires related to enjoyment and leisure (Hofstede et al., 2010). In indulgent cultures, individuals are more oriented toward emotional expression, whereas restrained cultures emphasize discipline and regulation. Drawing on signaling theory, we argue that the emotional content acts as a key cue interpreted through these cultural value systems. Specifically, emotional content aligns with the hedonic motivations of indulgent consumers, who are more likely to engage with messages that evoke excitement or humor. In contrast, individuals in restrained cultures are more pragmatic and goal-oriented, making informational content more influential in their engagement behaviors (Lim & Ang, 2008). Therefore, we posit the following:

Hypothesis 7a: The higher a society's level of indulgence, the stronger the impact of emotional content compared with that of informational content on CE.

Indulgence/restraint also influences the way individuals interpret content source. People from indulgent societies, marked by greater optimism and social interaction, are more likely to adopt and actively engage with social media than people in restrained cultures (Lu et al., 2018). Consequently, UGC, which signals authenticity and collective experience, is more appealing than FGC in indulgent societies. Such content also fosters openness to marketing signals (e.g., customer reviews), increasing the likelihood of processing and acting on these cues during decision-making (Akdeniz & Talay, 2013). In contrast, FGC, typically characterized by

more formal brand-controlled messaging, may be perceived as less engaging in these contexts. Thus, we propose that:

Hypothesis 7b: The higher a society's level of indulgence, the stronger the impact of UGC compared with that of FGC on CE.

The indulgence/restraint cultural dimension reflects how societies regulate emotional expression (Hofstede et al., 2010). In indulgent societies, people are encouraged to express emotions freely, while restraint societies emphasize more controlled expression (Hofstede et al., 2010). This distinction affects social media behavior, such that consumers in indulgent societies are more likely to engage with content across different valences, including negative ones, whereas those in restraint cultures typically prefer milder and less varied tones in online reviews (Chiu et al., 2019). From a signaling perspective, negative content in indulgent societies is more likely to be accepted as authentic and legitimate, thus increasing its persuasive power and potential to drive CE. Accordingly, we hypothesize that:

Hypothesis 7c: The higher a society's level of indulgence, the stronger the impact of negative content compared with that of positive content on CE.

Methodology

We conducted a systematic literature search following PRISMA guidelines to identify empirical studies examining the impact of SMCSs on CE and business performance (see Online Appendix 2). We searched various major databases (e.g., EBSCOhost, Web of Science, Google Scholar) using combinations of relevant keywords related to SMCSs (e.g., “social media content strategy,” “social media message strategy,” “content marketing”) and outcomes (e.g., “customer engagement,” “business performance,” “firm performance”). We also manually reviewed leading journals and applied snowballing procedures to identify additional studies. To ensure relevance and analytical rigor, we included studies if they (a) examined at least one SMCS dimension in relation to CE or performance, (b) provided sufficient statistics (e.g., correlation coefficients, standardized beta values, *p* values) to compute effect sizes, (c) employed clearly defined and measurable constructs aligned with our coding scheme, and (d) reported essential study (e.g., focal country) and sample (e.g., size) details. This process yielded 148 empirical studies published up to the end of 2024 that were eligible for inclusion in our meta-analysis.

Two independent coders analyzed all selected studies using a coding protocol that outlined both methodological details (e.g., focal country, sample size, research context)

and empirical information (e.g., reliability scores, correlations, estimated coefficients). The protocol also included definitions and operationalizations of the key variables in our conceptual model (see Online Appendix 3). The coders worked independently to code relevant data into a spreadsheet. A coding comparison revealed an intercoder reliability rate above 95%; discrepancies were resolved through discussion and re-evaluation.

For the moderation analysis, we used Hofstede's framework to code national cultural characteristics.¹ While Hofstede's (1980) original four-dimensional framework is criticized for its reliance on dated data and the assumption of national-level homogeneity, it remains a commonly adopted approach for capturing cross-national variation in value orientations within international business research (e.g., Beugelsdijk et al., 2017; Claro et al., 2025). In our analysis, we employed Hofstede et al.'s (2010) updated six-dimensional framework, which integrates more recent large-scale data and refines the original dimensions to better reflect societal value orientations. (<https://geerthofstede.com>)² This approach enables a systematic and comparable assessment across the studies included in our sample.

We also considered the following variables to control for the relationships between SMCSs and CE: (a) *social media platform used*—the study's focus on major social media (e.g., Facebook, Instagram, Twitter) versus other platforms; (b) *product-service emphasis*—products versus services; (c) *product involvement*—high-involvement versus low-involvement products; (d) *country GDP level*—captured by the average GDP over the study period; and (e) *country digital access*—measured by its Internet penetration rate. GDP level and Internet penetration rate were obtained from the World Bank's World Development Indicators for the specific years of the study (<https://databank.worldbank.org>).

¹ While we acknowledge that treating national culture as homogeneous may obscure within-country variation and subcultural differences (Tung & Stahl, 2018), country-level cultural indices remain valuable for capturing broad, macro-level patterns in international business research. Such measures are particularly suitable in large-scale, cross-national studies of digital engagement, where standardized country-level indicators enable comparability across studies. Although alternative cultural frameworks (e.g., GLOBE, World Values Survey) offer complementary perspectives, Hofstede's framework provides the most consistently reported and comparable measures across the studies included in our sample. Given the transnational nature of social media marketing and cross-country scope of this study, applying a national-level cultural lens is both methodologically appropriate and analytically justified.

² We examined the country of data collection for the 148 studies to capture cultural context. Our sample spans 32 countries across six regions—North America, Europe, Asia, Australasia, South America, and Africa—providing meaningful cross-cultural variability in Hofstede's cultural dimensions.



To assess potential publication bias, we conducted three tests following Steel, Beugelsdijk and Aguinis (2021). First, sensitivity analysis excluding the 10, 15, and 20% of the studies with the smallest sample sizes yielded consistent effect size estimates, confirming that publication bias is not a concern. Second, the trim-and-fill analysis using the run estimator imputed zero missing studies, and the pooled effect size remained unchanged (effect size = 0.184, CI [0.157, 0.211]), suggesting that the results are robust and unbiased by unpublished studies. Third, Egger's test was used to check funnel plot asymmetry, which produced nonsignificant results ($\beta = 0.55$, $z = 1.53$, $p = 0.126$), suggesting no bias. We also applied both tests to each individual path and observed no evidence of publication bias (see Online Appendix 4).

Analysis and results

To test the role of CE in mediating the SMCS–performance outcomes links, as well as the moderating influences of cultural dimensions, we coded studies that reported correlation coefficients (r) or convertible statistics (e.g., β values, t values, p values) to calculate effect sizes. Sample size information was also a requirement to account for measurement error in multi-item scales (Eisend, 2015). Table 1 presents a meta-analytic summary of the relationships among the key variables, including effect sizes and associated statistics.

Direct and control effects

We used a multilevel random effects meta-analytic model to account for the hierarchical structure of the data, where multiple effect sizes are nested within studies.³ This approach captures both within- and between-study variability using harmonized effect sizes and standard errors derived from Fisher's z transformation. Table 2 presents the results of the main effects. The results suggest that informational content ($b = 0.184$, $p < 0.001$), emotional content ($b = 0.203$, $p < 0.001$), UGC ($b = 0.404$, $p < 0.001$), FGC ($b = 0.271$, $p < 0.001$), positive content ($b = 0.160$, $p < 0.001$) and negative content, albeit marginally, ($b = 0.070$, $p = 0.079$) positively affect CE.

Despite these positive effects of all content dimensions on CE, our control analysis based on social media platform type, product-service focus, product involvement, focal country GDP level, and country Internet penetration rate

revealed significant variations in the results (see Table 3). Regarding *social media platform type*, informational ($b = 0.037$, $p = 0.078$), emotional ($b = 0.043$, $p = 0.013$), and negative ($b = 0.151$, $p = 0.002$) content showed a stronger positive impact on CE when used on mainstream platforms than non-mainstream ones, suggesting mainstream platforms are more receptive to diverse content characteristics and controversial content. Regarding *product-service type*, informational content was less engaging in services contexts than in product contexts ($b = -0.119$, $p = 0.016$), whereas both positive ($b = 0.140$, $p < 0.001$) and negative ($b = 0.168$, $p < 0.001$) content were more engaging in services contexts. For *product involvement*, emotional content ($b = -0.129$, $p < 0.001$) and FGC ($b = -0.390$, $p < 0.001$) showed weaker effects on CE for high-involvement products than for low-involvement products. We also found that higher *focal country GDP level* weakened the effect on CE for UGC ($b = -0.114$, $p = 0.024$), positive content ($b = -0.127$, $p = 0.012$), and negative content ($b = -0.295$, $p = 0.028$). Finally, a country's *Internet penetration rate* weakened the influence of informational content on CE ($b = -0.487$, $p < 0.001$) and strengthened negative content's effect on CE ($b = 0.203$, $p = 0.012$).

Mediation effects

To test whether CE mediates the SMCS–performance link, we followed Preacher and Hayes (2008) to conduct a mediation analysis using bootstrapped confidence intervals. We used 5000 bootstrap resamples to estimate confidence intervals and p values for the mediation effects (see Table 4). Our results suggest that CE serves as a significant mediator (full or partial) between the three dimensions of SMCS and the three aspects of performance. Specifically, CE fully mediates the effects of emotional content on both brand performance (indirect: $b = 0.087$, $p < 0.001$) and product-market performance (indirect: $b = 0.031$, $p < 0.001$). It also fully mediates the impact of UGC on product-market performance (indirect: $b = 0.062$, $p < 0.001$), as well as the impact of FGC on product-market performance (indirect: $b = 0.042$, $p < 0.001$). Further, CE fully mediates the associations between negative content and both brand performance (indirect: $b = 0.030$, $p = 0.024$) and product-market performance (indirect: $b = 0.011$, $p = 0.039$).

Additionally, CE partially mediates the relationships of informational content with brand performance (indirect: $b = 0.079$, $p < 0.001$), product-market performance (indirect: $b = 0.028$, $p < 0.001$), and financial market performance (indirect: $b = 0.014$, $p = 0.024$), and the link between emotional content and financial market performance (indirect: $b = 0.016$, $p = 0.026$). CE also partially mediates the effects of UGC and FGC on brand performance (UGC: $b = 0.173$, $p < 0.001$; FGC: $b = 0.116$, $p < 0.001$) and financial market

³ A meta-analytic structural equation modelling analysis, which simultaneously estimates all paths and correcting for sampling and measurement errors, yields results consistent with our meta-regression findings.

Table 1 Meta-analytic summary of relationships among key variables

Variable 1	Variable 2	+	–	Total	Sample size (n)	Mean effect size (θ)	Standard error (se)	CI (Lower)	CI (Upper)	Z	Q	Tau2
Informational	Customer Engagement	82	41	123	17101.862	0.130	0.030	0.058	0.164	4.990	23277.830	0.081
Informational	Emotional	16	3	19	12408.316	0.285	0.040	0.196	0.316	2.710	3684.800	0.207
Informational	User Generated Content	9	1	10	15373.200	0.271	0.043	0.167	0.316	3.010	1415.710	0.078
Informational	Firm Generated Content	1	2	3	384.000	– 0.146	0.054	– 0.224	– 0.035	– 0.710	64.390	0.120
Informational	Positive	4	3	9	18379.111	0.212	0.026	0.119	0.198	1.400	1849.090	0.203
Informational	Negative	6	0	6	48955.333	0.111	0.015	0.080	0.139	3.160	1945.790	0.007
Informational	Brand Performance	13	2	15	723.933	0.271	0.043	0.178	0.330	5.370	419.950	0.036
Informational	Product-Market Performance	7	1	8	1067.875	0.125	0.042	0.036	0.188	1.510	120.070	0.050
Informational	Financial Market Performance	3	0	3	7713.000	0.066	0.013	0.041	0.091	2.030	42.630	0.003
Emotional	Customer Engagement	87	16	103	18736.350	0.148	0.031	0.073	0.185	5.390	15613.860	0.075
Emotional	User Generated Content	7	1	8	19160.250	0.266	0.040	0.181	0.318	3.490	4251.350	0.043
Emotional	Firm Generated Content	2	0	2	446.000	0.114	0.048	0.019	0.203	1.070	9.180	0.019
Emotional	Positive	6	1	7	22362.714	0.315	0.026	0.225	0.307	2.010	4960.960	0.171
Emotional	Negative	4	1	5	40248.600	0.293	0.022	0.216	0.298	1.830	5542.110	0.128
Emotional	Brand Performance	16	5	21	471.000	0.074	0.057	0.037	0.192	0.580	1246.470	0.375
Emotional	Product-Market Performance	4	2	6	1461.500	– 0.002	0.034	– 0.066	0.065	0.210	24.430	0.008
Emotional	Financial Market Performance	4	0	4	2016.000	0.093	0.042	0.010	0.170	2.090	11.640	0.003
User Generated Content	Customer Engagement	25	2	27	7350.037	0.371	0.042	0.259	0.394	6.400	21167.710	0.088
User Generated Content	Firm Generated Content	16	0	16	2599.813	0.429	0.040	0.312	0.429	5.560	1308.240	0.099
User Generated Content	Positive	8	6	14	15150.571	0.109	0.023	0.058	0.139	1.300	8581.240	0.095
User Generated Content	Negative	8	1	9	19976.556	0.148	0.022	0.102	0.183	3.040	1834.680	0.019
User Generated Content	Brand Performance	28	2	30	1352.200	0.258	0.046	0.155	0.314	5.680	1364.010	0.058
User Generated Content	Product-Market Performance	10	10	20	3331.100	– 0.052	0.048	– 0.122	0.044	– 0.620	876.800	0.065
User Generated Content	Financial Market Performance	16	6	22	35981.273	0.098	0.037	0.021	0.157	2.310	1328.530	0.035
Firm Generated Content	Customer Engagement	25	7	32	1829.250	0.228	0.043	0.134	0.283	5.170	1562.530	0.059
Firm Generated Content	Positive	4	3	7	113149.860	– 0.021	0.024	– 0.064	0.027	– 0.210	343.510	0.021
Firm Generated Content	Negative	1	5	7	113149.860	– 0.063	0.024	– 0.103	– 0.014	– 0.910	569.940	0.025
Firm Generated Content	Brand Performance	24	3	27	1363.185	0.225	0.051	0.117	0.300	5.410	913.430	0.043
Firm Generated Content	Product-Market Performance	10	4	14	1044.500	0.110	0.058	– 0.006	0.180	1.610	146.940	0.033
Firm Generated Content	Financial Market Performance	5	0	5	893.600	0.084	0.079	– 0.070	0.228	4.120	2.280	0.000
Positive	Customer Engagement	37	11	48	10318.167	0.163	0.031	0.081	0.192	3.580	6973.620	0.096
Positive	Negative	8	7	15	71445.733	0.026	0.018	– 0.003	0.054	0.160	20000.000	0.394
Positive	Brand Performance	18	4	22	1620.182	0.325	0.044	0.213	0.356	4.760	1855.080	0.099
Positive	Product-Market Performance	8	2	10	1867.600	0.102	0.038	0.026	0.173	2.830	146.370	0.011
Positive	Financial Market Performance	29	8	37	27454.622	0.054	0.042	– 0.027	0.133	3.700	512.780	0.006





Table 1 (continued)

Variable 1	Variable 2	+	-	Total	Sample size (n)	Mean effect size (θ)	Standard error (se)	CI (Lower)	CI (Upper)	Z	Q	Tau2
Negative	Customer Engagement	16	10	27	11638.481	0.068	0.032	0.004	0.126	2.330	1653.250	0.024
Negative	Brand Performance	6	11	17	1789.471	-0.146	0.050	-0.223	-0.043	-2.200	1199.870	0.069
Negative	Product-Market Performance	1	8	9	1334.778	-0.093	0.035	-0.158	-0.025	-1.980	147.880	0.020
Negative	Financial Market Performance	13	20	33	29747.364	-0.054	0.043	-0.125	0.035	-1.400	893.470	0.040
Customer Engagement	Brand Performance	29	1	30	890.900	0.396	0.058	0.260	0.452	9.030	1737.910	0.055
Customer Engagement	Product-Market Performance	18	4	22	7277.409	0.160	0.074	0.003	0.237	1.980	347.12	0.126
Customer Engagement	Financial Market Performance	8	1	9	17506.778	0.085	0.047	-0.006	0.167	3.130	27.600	0.002
Brand Performance	Product-Market Performance	3	0	3	1617.667	0.161	0.031	0.100	0.214	2.190	24.220	0.014
Brand Performance	Financial Market Performance	2	0	2	397.500	0.116	0.074	-0.029	0.249	0.960	2.750	0.012
Product-Market Performance	Financial Market Performance	3	0	3	16999.667	0.124	0.043	0.040	0.204	3.720	6.440	0.002

Pairs of variables: Pairs of constructs for which effect-size correlations were coded with Variable 1 and Variable 2 being the two constructs in each pair

Effect sign (+): Sign of the relationship between the pair of variables, whether positive (+) or negative (-)

Sample size (n): Average sample size across all studies for each relationship

Mean effect size (θ): Pooled average effect sizes across all studies

Standard Error (SE): Standard error of the mean effect size

CI Lower & CI Upper: The mean lower and upper bounds of 95% confidence intervals for the correlations within each path

Z: Z-statistic testing whether the mean effect size is significantly different from zero

Q: Cochran's Q statistic, testing for heterogeneity among effect sizes (our statistics indicate moderate to high heterogeneity across relationships between studies)

Tau²: Tau-squared, representing the estimated variance of true effect sizes across studies (our statistics indicate moderate to high heterogeneity between studies)

Table 2 Direct effects among SMCS dimensions, CE, and performance outcomes

Paths	Expected sign	Estimate (b)	Standard error (SE)	<i>z</i>	CI (lower)	CI (upper)	<i>p</i> value
Informational Content → Customer Engagement	+	0.184	0.043	4.247	0.099	0.269	< 0.001
Emotional Content → Customer Engagement	+	0.203	0.049	4.128	0.107	0.299	< 0.001
User-Generated Content → Customer Engagement	+	0.404	0.080	5.059	0.248	0.560	< 0.001
Firm-Generated Content → Customer Engagement	+	0.271	0.061	4.428	0.151	0.391	< 0.001
Positive Content → Customer Engagement	+	0.160	0.048	3.326	0.066	0.254	< 0.001
Negative Content → Customer Engagement	+	0.070	0.040	1.755	− 0.008	0.148	0.079
Customer Engagement → Brand Performance	+	0.428	0.062	6.862	0.306	0.550	< 0.001
Customer Engagement → Product-Market Performance	+	0.154	0.078	1.980	0.002	0.307	0.048
Customer Engagement → Financial Market Performance	+	0.077	0.039	1.972	0.001	0.153	0.049

Multilevel meta-analyses were conducted, using restricted maximum likelihood estimation with random effects.

performance (UGC: $b = 0.031$, $p = 0.019$; FGC: $b = 0.021$, $p = 0.023$). Likewise, CE partially mediates the effects of positive content on brand (indirect: $b = 0.069$, $p < 0.001$), product-market (indirect: $b = 0.025$, $p = 0.003$), and financial market (indirect: $b = 0.012$, $p = 0.039$) performance, and marginally mediates negative content's effect on financial market performance (indirect: $b = 0.005$, $p = 0.099$). Collectively, these findings provide strong empirical support for H_1 , confirming that CE is a critical mediating mechanism through which SMCS influence firm performance outcomes.

Moderation effects

To assess how Hofstede et al.'s (2010) six cultural dimensions moderate the effects of SMCS on CE, we conducted a multivariate random effects meta-regression analysis using the Hunter–Schmidt method. This approach accounts for between-study heterogeneity and corrects for sampling and measurement errors, providing more robust estimates even with a limited number of effect sizes (Hunter & Schmidt, 2004). We examined these moderation effects by estimating how each cultural dimension influences the links between individual components of SMCS and CE separately. We then performed the interaction model, which includes interaction terms between each cultural dimension and a grouping variable of content types. Thus, we compare whether these moderation effects differ significantly across pairs of content types for each cultural dimension. Table 5 presents the estimation results from the moderation and interaction analyses, highlighting the significant role of cultural values in shaping SMCS' impact on CE.⁴

⁴ We further tested a moderated mediation analysis and found that cultural values not only shape how SMCS influences CE, but also condition how CE translates into different performance outcomes (see Online Appendix 5).

Individualism weakens the positive relationship between informational content and CE ($b = -0.005$, $p < 0.001$) but strengthens emotional content's positive effect on CE ($b = 0.001$, $p = 0.005$). The comparison results ($\Delta[\text{informational, emotional}] = -0.006$, $p < 0.001$) further indicate that emotional content outperforms informational content in individualistic societies, supporting H_{2a} . Although individualism strengthens negative content's effect on CE ($b = 0.004$, $p = 0.002$), it does not significantly moderate positive content's effect ($b = 0.000$, $p = 0.842$), with a significant difference ($\Delta[\text{positive, negative}] = -0.005$, $p = 0.020$), supporting H_{2c} . Regarding the paths involving UGC and FGC, the results show no discerning effects ($\Delta[\text{UGC, FGC}] = 0.005$, $p = 0.104$), thereby not supporting H_{2b} .

Power distance strengthens the positive effect of informational content on CE ($b = 0.003$, $p < 0.001$) but weakens emotional content's positive effect ($b = -0.001$, $p = 0.009$) on CE, with informational content more effective ($\Delta[\text{informational, emotional}] = 0.004$, $p < 0.001$), in support of H_{3a} . Power distance also strengthens FGC's positive effect ($b = 0.006$, $p = 0.002$) but not that of UGC ($b = 0.001$, $p = 0.364$), with FGC outperforming UGC ($\Delta[\text{UGC, FGC}] = -0.005$, $p = 0.022$), in support of H_{3b} . The results do not show significant differences between content valences ($\Delta[\text{positive, negative}] = 0.002$, $p = 0.407$), lending no support to H_{3c} .

Uncertainty avoidance strengthens the positive link between emotional content and CE ($b = 0.003$, $p < 0.001$), and that between informational content and CE, albeit only marginally ($b = 0.001$, $p = 0.086$), where emotional content's impact outperforms that of informational content under high uncertainty avoidance ($\Delta[\text{informational, emotional}] = -0.002$, $p = 0.050$), in support of H_{4a} . Further, uncertainty avoidance strengthens the positive links between UGC and CE ($b = 0.009$, $p < 0.001$) and FGC and CE ($b = 0.012$, $p < 0.001$), but no significant differences were observed ($\Delta[\text{UGC, FGC}] = -0.003$, $p = 0.320$),

Table 3 Effects of control variables on SMCS dimensions and CE

Control variables	Social media platforms (Facebook/Instagram/ Twitter vs. Others)			Product-service type (Ser- vices vs. Product)			Product involvement (High vs. Low)			Focal country GDP			Focal country Internet penetration		
	<i>b</i>	SE	<i>p</i> value	<i>b</i>	SE	<i>p</i> value	<i>b</i>	SE	<i>p</i> value	<i>b</i>	SE	<i>p</i> value	<i>b</i>	SE	<i>p</i> value
Informational Content → Customer Engagement	0.037	0.021	0.078	-0.119	0.049	0.016	-0.013	0.042	0.757	0.026	0.021	0.205	-0.487	0.094	< 0.001
Emotional Content → Customer Engagement	0.043	0.018	0.013	-0.016	0.032	0.623	-0.129	0.031	< 0.001	-0.014	0.011	0.188	-0.125	0.094	0.184
User-Generated Content → Customer Engagement	-0.009	0.056	0.878	0.058	0.059	0.321	0.108	0.134	0.420	-0.114	0.051	0.024	0.431	0.511	0.399
Firm-Generated Content → Customer Engagement	-0.015	0.068	0.825	0.172	0.273	0.529	-0.390	0.112	< 0.001	0.100	0.067	0.134	0.943	1.266	0.456
Positive Content → Customer Engagement	0.053	0.043	0.220	0.140	0.036	< 0.001	-0.016	0.052	0.762	-0.127	0.050	0.012	0.089	0.103	0.387
Negative Content → Customer Engagement	0.151	0.049	0.002	0.168	0.046	< 0.001	-0.011	0.042	0.786	-0.295	0.134	0.028	0.203	0.080	0.012

thus providing partial support for H_{4b}. Finally, uncertainty avoidance weakens negative content's effect on CE ($b = -0.007$, $p < 0.001$), but does not condition the impact of positive content ($b = 0.001$, $p = 0.816$), resulting in significantly smaller effects from negative than positive content ($\Delta[\text{positive, negative}] = 0.008$, $p = 0.015$), in support of H_{4c}.

Masculinity weakens the relationship of emotional content with CE ($b = -0.004$, $p < 0.001$), but does not moderate the link between informational content and CE ($b = -0.001$, $p = 0.107$), though the difference is non-significant ($\Delta[\text{informational, emotional}] = 0.002$, $p = 0.103$), partially supporting H_{5a}. Moreover, masculinity significantly attenuates UGC's positive effect on CE ($b = -0.013$, $p = 0.010$), but does not condition the impact of FGC ($b = -0.003$, $p = 0.176$), with their differences indicating a marginally but significantly smaller impact of UGC ($\Delta[\text{UGC, FGC}] = -0.010$, $p = 0.100$), in support of H_{5b}. Masculinity significantly weakens the effects of both positive content ($b = -0.030$, $p < 0.001$) and negative content ($b = -0.012$, $p < 0.001$) on CE, with negative content showing stronger impact than positive content in masculine societies ($\Delta[\text{positive, negative}] = -0.021$, $p = 0.007$), supporting H_{5c}.

Long-term orientation weakens informational content's effect ($b = -0.003$, $p = 0.002$) but not that of emotional content ($b = -0.001$, $p = 0.171$) on CE, while informational content exerting a significantly smaller impact ($\Delta[\text{informational, emotional}] = -0.002$, $p = 0.058$), lending support to H_{6a}. It also diminishes the effects of both UGC ($b = -0.005$, $p = 0.015$) and FGC ($b = -0.005$, $p = 0.087$) on CE, with no significant difference ($\Delta[\text{UGC, FGC}] = -0.001$, $p = 0.793$), partially supporting H_{6b}. Long-term orientation weakens positive content's effect ($b = -0.004$, $p = 0.047$) but strengthens that of negative content ($b = 0.005$, $p < 0.001$) on CE, yielding a significant differential effect ($\Delta[\text{positive, negative}] = -0.011$, $p = 0.001$), supporting H_{6c}.

Indulgence weakens information content's effect ($b = -0.003$, $p < 0.001$), but strengthens that of emotional content ($b = 0.001$, $p = 0.010$) on CE, with a significant difference between the two ($\Delta[\text{informational, emotional}] = -0.004$, $p < 0.001$), in support of H_{7a}. Indulgence also reduces the favorable effects of both UGC ($b = -0.004$, $p = 0.017$) and FGC ($b = -0.008$, $p < 0.001$) on CE, with UGC showing a marginally stronger impact ($\Delta[\text{UGC, FGC}] = 0.004$, $p = 0.071$), supporting H_{7b}. Indulgence marginally enhances negative content's effect ($b = 0.001$, $p = 0.089$), but not the impact of positive content ($b = 0.002$, $p = 0.110$), with non-significant difference between the two ($\Delta[\text{positive, negative}] = -0.001$, $p = 0.505$), partially supporting H_{7c}.

Table 4 Mediation effects of CE between SMCS dimensions and performance outcomes

Mediated paths	Indirect effect				Direct effect				Mediation result ^a	
	Estimate (b)	Bootstrap SE	p value	Bootstrap CI (lower)	Bootstrap CI (upper)	Estimate (b)	Bootstrap SE	p value	Bootstrap CI (lower)	Bootstrap CI (upper)
Informational Content → Customer Engagement → Brand Performance	0.079	0.017	< 0.001	0.048	0.115	0.208	0.072	0.002	0.073	0.338
Informational Content → Customer Engagement → Product-Market Performance	0.028	0.009	< 0.001	0.012	0.045	0.129	0.082	0.021	0.006	0.256
Informational Content → Customer Engagement → Financial Market Performance	0.014	0.006	0.024	0.005	0.029	0.052	0.022	< 0.001	0.024	0.092
Emotional Content → Customer Engagement → Brand Performance	0.087	0.019	< 0.001	0.051	0.123	0.141	0.149	0.316	− 0.089	0.380
Emotional Content → Customer Engagement → Product-Market Performance	0.031	0.010	< 0.001	0.014	0.051	− 0.036	0.043	0.530	− 0.108	0.035
Emotional Content → Customer Engagement → Financial Market Performance	0.016	0.007	0.026	0.006	0.031	0.052	0.019	< 0.001	0.028	0.092
User-Generated Content → Customer Engagement → Brand Performance	0.173	0.033	< 0.001	0.111	0.241	0.131	0.060	0.036	0.010	0.239
User-Generated Content → Customer Engagement → Product-Market Performance	0.062	0.018	< 0.001	0.027	0.096	− 0.049	0.064	0.504	− 0.164	0.092
User-Generated Content → Customer Engagement → Financial Market Performance	0.031	0.013	0.019	0.012	0.060	0.101	0.052	0.071	− 0.011	0.179
Firm-Generated Content → Customer Engagement → Brand Performance	0.116	0.025	< 0.001	0.071	0.167	0.180	0.053	< 0.001	0.078	0.282
Firm-Generated Content → Customer Engagement → Product-Market Performance	0.042	0.012	< 0.001	0.019	0.066	0.041	0.044	0.162	− 0.022	0.154
Firm-Generated Content → Customer Engagement → Financial Market Performance	0.021	0.009	0.023	0.008	0.042	0.041	0.014	0.019	0.014	0.074
Positive Content → Customer Engagement → Brand Performance	0.069	0.017	< 0.001	0.037	0.106	0.277	0.071	< 0.001	0.130	0.414
Positive Content → Customer Engagement → Product-Market Performance	0.025	0.008	0.003	0.010	0.042	0.065	0.034	0.056	− 0.002	0.127
Positive Content → Customer Engagement → Financial Market Performance	0.012	0.006	0.039	0.005	0.026	0.042	0.014	0.005	0.013	0.068
Negative Content → Customer Engagement → Brand Performance	0.030	0.013	0.024	0.005	0.057	− 0.073	0.071	0.308	− 0.201	0.082
Negative Content → Customer Engagement → Product-Market Performance	0.011	0.005	0.039	0.002	0.022	− 0.058	0.052	0.400	− 0.142	0.039
Negative Content → Customer Engagement → Financial Market Performance	0.005	0.003	0.099	0.001	0.013	− 0.101	0.049	0.016	− 0.173	− 0.008

Multilevel meta-analyses were conducted, using restricted maximum likelihood estimation with random effects. Bootstrap confidence intervals and *p* values were derived from 5000 bootstrap resamples.

^aPartial mediation indicates that both the indirect and direct effects are significant (meaning customer engagement explains part, but not all, of the relationship), while full mediation indicates that the effect of content type on performance operates entirely through customer engagement as the mechanism.



Table 5 Moderation effects of cultural values on the relationships between SMCS dimensions and CE

Moderators	Hypothesis	Main effect paths	Moderation			Comparison***		
			<i>b</i>	SE*	<i>p</i> value**	Δ	SE	<i>p</i> value
Individualism	H _{2a}	Informational Content → Customer Engagement****	− 0.005	(0.001	< 0.001	− 0.006	0.001	< 0.001
		Emotional Content → Customer Engagement	0.001	0.000	0.005			
	H _{2b}	User-Generated Content → Customer Engagement	0.002	0.002	0.450	0.005	0.003	0.104
		Firm-Generated Content → Customer Engagement	− 0.003	0.002	0.116			
	H _{2c}	Positive Content → Customer Engagement	0.000	0.001	0.842	− 0.005	0.002	0.020
		Negative Content → Customer Engagement	0.004	0.001	0.002			
Power distance	H _{3a}	Informational Content → Customer Engagement	0.003	0.001	< 0.001	0.004	0.001	< 0.001
		Emotional Content → Customer Engagement	− 0.001	0.000	0.009			
	H _{3b}	User-Generated Content → Customer Engagement	0.001	0.001	0.364	− 0.005	0.002	0.022
		Firm-Generated Content → Customer Engagement	0.006	0.002	0.002			
	H _{3c}	Positive Content → Customer Engagement	0.000	0.001	0.870	0.002	0.002	0.407
		Negative Content → Customer Engagement	0.000	0.001	0.955			
Uncertainty avoidance	H _{4a}	Informational Content → Customer Engagement	0.001	0.001	0.086	− 0.002	0.001	0.050
		Emotional Content → Customer Engagement	0.003	0.001	< 0.001			
	H _{4b}	User-Generated Content → Customer Engagement	0.009	0.002	< 0.001	− 0.003	0.003	0.320
		Firm-Generated Content → Customer Engagement	0.012	0.002	< 0.001			
	H _{4c}	Positive Content → Customer Engagement	0.001	0.002	0.816	0.008	0.003	0.015
		Negative Content → Customer Engagement	− 0.007	0.002	< 0.001			
Masculinity	H _{5a}	Informational Content → Customer Engagement	− 0.001	0.001	0.107	0.002	0.001	0.103
		Emotional → Customer Engagement	− 0.004	0.001	< 0.001			
	H _{5b}	User-Generated Content → Customer Engagement	− 0.013	0.005	0.010	− 0.010	0.006	0.100
		Firm-Generated Content → Customer Engagement	− 0.003	0.002	0.176			
	H _{5c}	Positive content → Customer Engagement	− 0.030	0.005	< 0.001	− 0.021	0.008	0.007
		Negative content → Customer Engagement	− 0.012	0.004	0.001			
Long-term orientation	H _{6a}	Informational Content → Customer Engagement	− 0.003	0.001	0.002	− 0.002	0.001	0.058
		Emotional Content → Customer Engagement	− 0.001	0.001	0.171			
	H _{6b}	User-Generated Content → Customer Engagement	− 0.005	0.002	0.015	− 0.001	0.003	0.793
		Firm-Generated Content → Customer Engagement	− 0.005	0.003	0.087			
	H _{6c}	Positive Content → Customer Engagement	− 0.004	0.002	0.047	− 0.011	0.003	< 0.001
		Negative Content → Customer Engagement	0.005	0.002	< 0.001			
Indulgence	H _{7a}	Informational →Customer Engagement	− 0.003	0.001	< 0.001	− 0.004	0.001	< 0.001
		Emotional →Customer Engagement	0.001	0.000	0.010			
	H _{7b}	User-Generated Content →Customer Engagement	− 0.004	0.001	0.017	0.004	0.002	0.071
		Firm-Generated Content →Customer Engagement	− 0.008	0.002	< 0.001			
	H _{7c}	Positive content → Customer Engagement	0.002	0.001	0.110	− 0.001	0.002	0.505
		Negative content → Customer Engagement	0.001	0.001	0.089			

The random-effects meta-regression analysis with Hunter–Schmidt method was used to provide more robust standard error estimates that account for sampling error and the small number of studies in some paths.

*Standard error is reported in parentheses.

**All *p* values in bold indicate stronger, more significant effects.

***The Comparison column reports whether the moderation effect differs significantly across pairs of content types (i.e., informational and emotional, UGC and FGC, positive and negative) for each Hofstede's cultural dimension. For instance, it assesses whether, as societies become more individualistic, informational content exerts a significantly different impact on customer engagement in comparison to emotional content, *ceteris paribus*. The same applies to the other cultural dimensions.

****The moderated mediation results incorporating all performance outcomes are reported in Online Appendix 5, which estimates the effects of Hofstede's cultural dimensions on firm performance via CE.

Discussion

Our findings provide robust evidence of the fundamental role of SMCS in driving CE and performance outcomes. The results demonstrate that all dimensions of SMCS (i.e., informational/emotional content, UGC/FGC, positive/negative content) are important drivers of CE, indicating that diverse content interaction can serve as a meaningful brand touchpoint in the digital era. This aligns with previous studies highlighting how varied content strategies shape consumer responses (Colicev et al., 2019; Meire et al., 2019) and that combining social media content aspects enhances CE (Swani et al., 2017; Wahid et al., 2023). Our control analysis reveals that SMCS effectiveness is influenced by several factors related to product context, country characteristics, and platform type, consistent with previous findings (Kitirattakarn et al., 2019; Swani et al., 2017). These differences highlight the importance of aligning SMCS with specific contextual conditions.

The mediating role of CE confirmed in this study highlights its importance as a mechanism connecting SMCS with business performance, consistent with prior work (e.g., Pan-sari & Kumar, 2017) that has identified CE as a crucial transformational force through which marketing actions translate into enhanced performance outcomes. However, our results show that CE translates more strongly into brand equity, which is a relationship outcome, than into product-market performance, which is a transactional outcome. The relatively weaker (but significant) effect of CE on financial market performance implies that social media content affects not only customer-level value creation but also positive investor perceptions through engagement-driven signals (e.g., likes, comments), although these may take a longer time to develop (Beckers et al., 2018).

The cultural moderation effects demonstrate that SMCSs cannot be universally applied but instead are interpreted through culturally shaped meaning systems. Rather than simply cataloguing which content works where, the findings identify three fundamental interpretive mechanisms through which culture conditions signal effectiveness. First, cultural weighting of affective versus cognitive signals determines whether emotional or informational cues are prioritized. For example, in individualistic and indulgent cultures, emotional content is more influential because these contexts privilege affective cues aligned with values of self-expression and immediate gratification. Second, cultural filtering of credibility determines which content sources audiences perceive as credible and authoritative. In contexts marked by higher power distance, audiences tend to respond more favorably to FGC, reflecting preferences for hierarchical authority and institutional legitimacy, whereas in high-uncertainty-avoidance cultures, both FGC and UGC are valued as

complementary sources that reduce interpretive ambiguity. Third, cultural framing of valence determines whether positive or negative content is seen as more diagnostic. In masculine and long-term-oriented cultures, negative content tends to resonate more strongly since it is decoded as performance-relevant or future-oriented feedback rather than as inappropriate criticism. Appendix 1 synthesizes these effects by mapping cultural dimensions onto observed content signal effects, their underlying interpretive mechanisms, and corresponding managerial implications.

Finally, our moderated mediation results (see Online Appendix 5) unveil that cultural values also condition how decoded content signals are converted into performance outcomes via CE. Specifically, informational content has stronger mediated effects on all performance outcomes through CE in high-power-distance and collectivistic cultures, where hierarchical relationships and collective goals amplify its influence. In contrast, emotional content is more effective in low-power-distance and individualistic cultures, where self-expression and personal relevance enhance engagement. Both UGC and FGC show stronger positive mediated effects on all performance outcomes under conditions of high uncertainty avoidance and low indulgence. Moreover, FGC exhibits greater impact in high-power-distance cultures, while UGC is more impactful in feminine and short-term-oriented cultures. Finally, negative content has stronger effects in individualistic cultures and even outperforms positive content in long-term-oriented cultures, suggesting that consumers in these cultures respond more critically to overly optimistic messages.

Implications

Theoretical implications

This study has several important theoretical implications for international business research. First, it extends signaling theory by conceptualizing SMCS as operating through a structured system of interdependent signals comprising distinct message dimensions referring to the content characteristics, source, and valence. While prior work has often studied these dimensions in isolation, our framework integrates them as a coherent signal set through which firms communicate credibility, intent, and value. In doing so, this study demonstrates that SMCS effectiveness depends on how multiple signals jointly shape meaning together with different cultural values. This system-level perspective advances signaling theory by showing that signal interpretation in digital contexts is inherently configurational, requiring attention to how multiple signal cues interact to reduce uncertainty and guide engagement.



Second, we advance theoretical understanding of CE by positioning it as an important mediating mechanism that links SMCS to firm performance. While much of the literature treats CE as an endpoint, our findings reveal that CE operates as a transmission channel through which different content signals are converted into brand, product-market, and financial market outcomes. We further show that content types differentially activate CE to varying degrees, depending on the alignment of message characteristics, source credibility, and emotional tone. This contingency view broadens our understanding of CE by illustrating how engagement emerges from the interplay of multiple content signals within digital environments.

Third, we contribute to international business research by clarifying how cultural contexts shape the effectiveness of digital communication strategies and empirically demonstrating the role of culture as a decoding and weighting mechanism within the signaling process. By examining the full set of Hofstede's cultural dimensions, we identify three fundamental interpretive mechanisms: (a) *cultural calibration* of affective versus cognitive signal weighting determines whether emotional or informational cues receive interpretive priority; (b) *cultural filtering* of credibility and authority shapes which content sources are granted legitimacy; and (c) *cultural framing* of valence as diagnostic versus disruptive influences whether positive or negative content is decoded as valuable information or as inappropriate criticism. These mechanisms advance a culturally informed signaling perspective and clarify not only whether culture matters, but also how and why it matters in digital communication.

Finally, our signaling-based framework is subject to boundary conditions that define its scope. Its explanatory power is expected to be strongest in contexts with high information asymmetry and uncertainty, where audiences rely more on content signals to infer quality and intent. It is also more applicable to product categories involving higher perceived risk or experiential attributes, where content cues are central to evaluation. Across the customer journey, cultural decoding is likely to exert greater influence at early stages (e.g., awareness, evaluation) when uncertainty is highest, than at later stages (e.g., purchase, post-purchase) where accumulated experience substitutes for signaling cues. By articulating these boundary conditions, context-specific empirical results can be translated into more generalizable theoretical propositions.

Managerial implications

Our findings offer several actionable insights for international business managers seeking to optimize SMCSs. First, SMCS should be viewed as a coordinated system of signals rather than isolated tactics, with content characteristics, source, and valence strategically orchestrated in combination to shape CE and enhance performance. In practice, managers rarely

rely on single content cues. Rather, effective SMCSs require configuring multiple signals that jointly reinforce meaning, enhance credibility, and reduce interpretive ambiguity. For example, a new product campaign may begin with informational FGC to introduce key features, followed by UGC (e.g., influencer testimonials) that reinforce authenticity and social proof. Subsequent positive-valence updates can sustain momentum, while occasional negative feedback responses can exhibit transparency and responsiveness. Such combinations can create a coherent signal ecosystem that builds credibility, maintains engagement, and drives conversions over time.

The effectiveness of signal orchestration depends on cultural alignment, as different contexts require different combination strategies. For instance, in high-power-distance contexts, pairing authoritative FGC with authentic UGC proves particularly effective. Managers can lead with informational FGC, which signals institutional authority through expert-led posts or CEO statements, followed by carefully curated UGC from respected customers and/or influencers that confirm institutional legitimacy. Similarly, in individualistic cultures, blending emotional tone with peer validation enhances signal consistency. Storytelling campaigns can be paired with user-generated contributions (e.g., photos, testimonials) to support self-expression while providing social validation. To operationalize these insights, firms should develop localized content playbooks that adapt message tone, source, and valence across markets while maintaining a coherent global brand narrative. Appendix 1 offers managerially relevant guidance on culturally aligned SMCSs across all cultural dimensions.

Beyond cultural adaptation, effective SMCS implementation requires recognizing CE as a strategic mechanism that translates content signals into brand equity, market performance, and investor confidence, rather than a simple social media metric (e.g., likes or shares). To leverage this process, firms should employ engagement dashboards that monitor the performance of different signal combinations across platforms and markets, enabling real-time adjustments. Linking CE indicators to key performance outcomes (e.g., conversion, retention) allows firms to assess and refine content effectiveness. Clear governance mechanisms (e.g., guidelines for responding to negative content) further help manage reputational risk.

Finally, effective cross-cultural SMCS implementation requires attention to product-, country-, and platform-specific differences in CE. For example, emotional and valenced content (both positive and negative) can be particularly effective for services, as these offerings depend on experiential cues and trust rather than tangible product attributes. In countries with higher Internet penetration, interactive and real-time formats (e.g., livestreams, short-form videos) are more engaging than they would be in less digitally advanced countries, where static posts and informative content are likely to perform better. Managers should align content with each platform's dominant interaction mode—for example,



visually rich content on Instagram or TikTok and more informational, credibility-focused posts on LinkedIn. Tailoring SMCSs to these contextual factors helps maximize engagement quality and ensure message relevance across diverse markets and media environments.

Future research directions

Future research could take several fruitful directions. First, this study has conceptualized SMCS as a three-dimensional construct. Future work might explore the combined effects of content characteristics, source, and valence using experimental or multimodal content-analytic designs to uncover possible interaction patterns not tapped in our meta-analysis. Additional dimensions such as the richness of content (e.g., text-only vs. multimedia formats) and its focal topic could further refine understanding of this important phenomenon.

Second, researchers should examine SMCS effects on a broader range of CE metrics. For example, beyond immediate measures such as likes and shares, future investigations might integrate customer-related outcomes (e.g., loyalty), operational outcomes (e.g., campaign efficiency), and financial indicators (e.g., profitability). Employing sentiment-weighted CE measures through text-based sentiment analysis or emotional valence metrics would allow for assessing not just the quantity but the quality of CE. Such efforts can provide a more comprehensive picture of the effectiveness and efficiency of SMCSs.

Third, cultural values present fruitful opportunities to further examine how SMCSs perform across contexts. As cultural orientations vary within countries, within-country research designs can capture subcultural variation and provide a more fine-grained understanding of how local cultural differences influence SMCS effectiveness, CE patterns, and business performance. These differences could be explored through qualitative comparative analysis, multilevel modeling, or segmentation-based techniques. Moreover, employing alternative cultural frameworks beyond Hofstede's dimensions, such as the GLOBE model, might yield additional insights.

Finally, future studies should consider additional moderators and mediators that might shape the relationships among SMCSs, CE, and firm performance. For example, potential moderators may include firm type, target customer segment, and consumer generational differences. Various situational factors (e.g., platform algorithms, content timing, and user mood) may also moderate how audiences engage with different types of content. Cognitive, affective, and evaluative processes could also be used as mediating mechanisms to explain how content strategies translate into CE and performance outcomes.

Appendix

See Table 6.

Table 6 Cultural contingencies in the effectiveness of social media content signals

	SMCSs	Individualism/Collectivism	Power Distance	Uncertainty Avoidance	Masculinity/Femininity	Long-term Orientation	Indulgence/Restraint	Interpretive Mechanisms
Content Characteristics	Informational Content	Less engaging in individualistic cultures	More engaging in high power distance cultures	Engagement-enhancing in high uncertainty avoidance contexts	Performs similarly across masculine and feminine cultures	Less responsive in long-term oriented cultures	Underperforms in indulgent cultures	Content characteristics shape engagement through cultural weighting of cognitive versus affective signals. Informational cues gain interpretive priority where audiences value structure, coordination, or ambiguity reduction, whereas emotional cues gain priority where self-expression and experiential relevance are emphasized. In high uncertainty avoidance contexts, engagement reflects reliance on convergent validation across both signal types rather than exclusive dependence on either.
	Emotional Content	Significantly outperforms in individualistic cultures	Shows weaker engagement than informational content	Associated with higher engagement in high uncertainty avoidance cultures	Less responsive in masculine cultures	Performs similarly across long- and short-term oriented cultures	Significantly outperforms informational content	
Content Source	UGC	Performs similarly across individualistic and collectivist cultures	Performs similarly across high- and low-power distance cultures	Shows higher engagement in high uncertainty avoidance contexts	Less effective in masculine cultures	Associated with weaker engagement in long-term oriented cultures	Less engaging in indulgent cultures	Content source influences engagement through culturally contingent credibility attribution. In hierarchical or restraint-oriented contexts, institutional sources are seen as more credible, enhancing the credibility of firm-generated signals. In egalitarian and indulgent contexts, peer-generated signals are decoded as more authentic and trustworthy. Where audiences prioritize uncertainty reduction through convergent cues, both sources contribute jointly, resulting in mixed or attenuated source effects.
	FGC	Performs similarly across individualistic and collectivist cultures	Shows stronger engagement in high power distance cultures	More engaging in high uncertainty avoidance contexts	No significant difference across masculine and feminine cultures	Less engaging in long-term oriented cultures	Underperforms in indulgent cultures	
Content Valence	Positive Content	Performs similarly across individualistic and collectivist cultures	No significant difference across high- and low-power distance cultures	No significant difference in engagement	Associated with lower engagement in masculine cultures	Underperforms in long-term oriented cultures	Performs similarly across indulgent and restrained cultures	Content valence impacts engagement only when tone is culturally decoded as diagnostic information. Positive valence enhances engagement when decoded as valuable or appealing, but is discounted as non-diagnostic in evaluative or performance-oriented contexts. Negative valence increases engagement when interpreted as credible problem awareness or evaluative feedback, but reduce it when it signals problems or risk. Where other signals dominate interpretation, valence differences yield neutral effects.
	Negative Content	Shows higher engagement in individualistic cultures	Negative content performs similarly across high- and low-power distance cultures	Associated with reduced engagement in high uncertainty avoidance contexts	Slightly better than positive but still less engaging in masculine cultures	Shows stronger engagement in long-term oriented cultures	Associated with higher engagement in indulgent cultures	
»	Key Managerial Implications	In individualistic societies, managers should prioritize emotionally expressive content and personal narratives over dense factual messaging. Source authority is less central, allowing for constructive critique without heavy reliance on positive framing.	In high power distant societies, managers should lead with authoritative, expert-driven information that signals institutional credibility. Emotional storytelling and peer voices should play a supporting role, with measured tone.	In high uncertainty avoidance societies, brands should emphasize clarity and structure supported by reassuring emotional cues. Use both authoritative and peer voices to reinforce confidence, while avoiding negative framing that heightens anxiety.	In masculine societies, firms should prioritize performance-driven messaging over emotional content, downplay UGC, while using neutral content that emphasizes competitive advantages and achievement outcomes rather than overly positive or negative messaging.	In long-term oriented societies, firms should focus on relationship-building through trusted, credible partners. Downplaying overly positive messaging and strategically leveraging negative content to support realistic, solution-focused communication.	In indulgent societies, managers should prioritize entertaining, emotionally engaging content over structured information, encouraging spontaneous UGC while strategically leveraging negative content for immediate impact and instant gratification.	Notes: Positive Effect Negative Effect No Significant Effect

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1057/s41267-026-00870-x>.

Acknowledgements The authors would like to thank the editor and anonymous reviewers for their constructive comments and valuable suggestions throughout the review process. Their feedback greatly helped improve the quality and clarity of this manuscript.

Data availability The data underlying this study have been deposited in the Zenodo repository and are available at <https://doi.org/10.5281/zenodo.20183149>. Due to the time and resources involved in data collection, and to allow the authors to fully utilise the dataset for ongoing research, access to the data will be subject to an embargo period of 5 years following publication. After the embargo period, the dataset will be made publicly available through the repository together with relevant documentation to facilitate transparency and reuse. During the embargo period, additional information can be provided by the authors upon reasonable request.

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References

- Akdeniz, M. B., & Talay, M. B. (2013). Cultural variations in the use of marketing signals: A multilevel analysis of the motion picture industry. *Journal of the Academy of Marketing Science*, 41(5), 601–624.
- Akpinar, E., & Berger, J. (2017). Valuable virality. *Journal of Marketing Research*, 54(2), 318–330.
- Alcántara-Pilar, J. M., Del Barrio-García, S., Crespo-Almendros, E., & Porcu, L. (2017). Toward an understanding of online information processing in e-tourism: Does national culture matter? *Journal of Travel and Tourism Marketing*, 34(8), 1128–1142.
- Beckers, S. F., Van Doorn, J., & Verhoef, P. C. (2018). Good, better, engaged? The effect of company-initiated customer engagement behavior on shareholder value. *Journal of the Academy of Marketing Science*, 46, 366–383.
- Berger, J., & Milkman, K. L. (2012). What makes online content viral? *Journal of Marketing Research*, 49(2), 192–205.
- Beugelsdijk, S., Kostova, T., & Roth, K. (2017). An overview of Hofstede-inspired country-level culture research in international business since 2006. *Journal of International Business Studies*, 48, 30–47.
- Brodie, R. J., Hollebeek, L. D., Juric, B., & Ilic, A. (2011). Customer engagement: Conceptual domain, fundamental propositions, and implications for research. *Journal of Service Research*, 14(3), 252–271.
- Chang, C. (2006). Cultural masculinity/femininity influences on advertising appeals. *Journal of Advertising Research*, 46(3), 315–323.
- Chiu, Y. L., Chen, K. H., Wang, J. N., & Hsu, Y. T. (2019). The impact of online movie word-of-mouth on consumer choice: A comparison of American and Chinese consumers. *International Marketing Review*, 36(6), 996–1025.
- Christodoulides, G., Michaelidou, N., & Argyriou, E. (2012). Cross-national differences in e-WOM influence. *European Journal of Marketing*, 46(11), 1689–1707.
- Claro, D. P., Xue, J., Hong, A., Palmatier, R. W., & Wang, Y. (2025). Channel governance effectiveness and country contingencies: A meta-analysis. *Journal of the Academy of Marketing Science*, 53(6), 1748–1771.
- Colicev, A., Kumar, A., & O'Connor, P. (2019). Modeling the relationship between firm and user-generated content and the stages of the marketing funnel. *International Journal of Research in Marketing*, 36(1), 100–116.
- Drover, W., Wood, M. S., & Corbett, A. C. (2018). Toward a cognitive view of signaling theory: Individual attention and signal set interpretation. *Journal of Management Studies*, 55(2), 209–231.
- Eisend, M. (2015). Have we progressed marketing knowledge? A meta-meta-analysis of effect sizes in marketing research. *Journal of Marketing*, 79(3), 23–40.
- Farace, S., Ordenes, F. V., Herhausen, D., Grewal, D., & Ruyter, K. D. (2026). Standing out while fitting in: Visual design of text overlays in social media communication. *Journal of Marketing*, 90(1), Article 132151.
- Filieri, R. (2015). What makes online reviews helpful? A diagnosticity-adoption framework to explain informational and normative influences in e-WOM. *Journal of Business Research*, 68(6), 1261–1270.
- Hofstede, G. (1980). Culture and organizations. *International Studies of Management & Organization*, 10(4), 15–41.
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind: Intercultural cooperation and its importance for survival*. McGraw-Hill.
- Hollebeek, L. D., & Macky, K. (2019). Digital content marketing's role in fostering consumer engagement, trust, and value: Framework, fundamental propositions, and implications. *Journal of Interactive Marketing*, 45, 27–41.
- Holliman, G., & Rowley, J. (2014). Business-to-business digital content marketing: Marketers' perceptions of best practice. *Journal of Research in Interactive Marketing*, 8(4), 269–293.
- Hunter, J. E., & Schmidt, F. L. (2004). *Methods of meta-analysis: Correcting error and bias in research findings*. Sage.
- Katsikeas, C. S., Morgan, N. A., Leonidou, L. C., & Hult, G. T. M. (2016). Assessing performance outcomes in marketing. *Journal of Marketing*, 80(2), 1–20.
- Kitirattakarn, G. P., Araujo, T., & Neijens, P. (2019). Challenging traditional culture? How personal and national collectivism-individualism moderates the effects of content characteristics and social relationships on consumer engagement with brand-related user-generated content. *Journal of Advertising*, 48(2), 197–214.
- Kumar, A., Bezawada, R., Rishika, R., Janakiraman, R., & Kannan, P. K. (2016). From social to sale: The effects of firm-generated content in social media on customer behavior. *Journal of Marketing*, 80(1), 7–25.
- Kumar, V., Aksoy, L., Donkers, B., Venkatesan, R., Wiesel, T., & Tillmanns, S. (2010). Undervalued or overvalued customers: Capturing total customer engagement value. *Journal of Service Research*, 13(3), 297–310.
- Lam, D., Lee, A., & Mizerski, R. (2009). The effects of cultural values in word-of-mouth communication. *Journal of International Marketing*, 17(3), 55–70.
- Li, F., Larimo, J., & Leonidou, L. C. (2021). Social media marketing strategy: Definition, conceptualization, taxonomy, validation, and future agenda. *Journal of the Academy of Marketing Science*, 49(1), 51–70.
- Li, X., & Wu, L. (2018). Herding and social media word-of-mouth. *MIS Quarterly*, 42(4), 1331–1352.



- Lim, E. A. C., & Ang, S. H. (2008). Hedonic vs. utilitarian consumption: A cross-cultural perspective based on cultural conditioning. *Journal of Business Research*, 61(3), 225–232.
- Lin, H. C., & Kalwani, M. U. (2018). Culturally contingent electronic word-of-mouth signaling and screening: A comparative study of product reviews in the United States and Japan. *Journal of International Marketing*, 26(2), 80–102.
- Lin, H. C., Swarna, H., & Bruning, P. F. (2017). Taking a global view on brand post popularity: Six social media brand post practices for global markets. *Business Horizons*, 60(5), 621–633.
- Lu, Q. (S.), Pattnaik, C., Xiao, J., & Voola, R. (2018). Cross-national variation in consumers' retail channel selection in a multichannel environment: Evidence from Asia-Pacific countries. *Journal of Business Research*, 86, 321–332.
- Meire, M., Hewett, K., Ballings, M., Kumar, V., & Van den Poel, D. (2019). The role of marketer-generated content in customer engagement marketing. *Journal of Marketing*, 83(6), 21–42.
- Mishra, A. S. (2019). Antecedents of consumers' engagement with brand-related content on social media. *Marketing Intelligence & Planning*, 37(4), 386–400.
- Nath, P., Devlin, J., & Reid, V. (2018). The effects of online reviews on service expectations: Do cultural value orientations matter? *Journal of Business Research*, 90, 123–133.
- Pansari, A., & Kumar, V. (2017). Customer engagement: The construct, antecedents, and consequences. *Journal of the Academy of Marketing Science*, 45(3), 294–311.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891.
- Salonen, A., Mero, J., Munnukka, J., Zimmer, M., & Karjaluoto, H. (2024). Digital content marketing on social media along the B2B customer journey: The effect of timely content delivery on customer engagement. *Industrial Marketing Management*, 118, 12–26.
- Shenkar, O. (2025). Towards interdisciplinarity in international business: National culture as an example. *Journal of International Business Studies*, 56(5), 559–566.
- Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics*, 87(3), 355–374.
- Steel, P., Beugelsdijk, S., & Aguinis, H. (2021). The anatomy of an award-winning meta-analysis: Recommendations for authors, reviewers, and readers of meta-analytic reviews. *Journal of International Business Studies*, 52, 23–44.
- Swani, K., Milne, G. R., Brown, B. P., Assaf, A. G., & Donthu, N. (2017). What messages to post? Evaluating the popularity of social media communications in business versus consumer markets. *Industrial Marketing Management*, 62, 77–87.
- Swanson, S. R., Frankel, R., Sagan, M., & Johansen, D. L. (2011). Private and public voice: Exploring cultural influence. *Managing Service Quality: an International Journal*, 21(3), 216–239.
- Tellis, G. J., MacInnis, D. J., Tirunillai, S., & Zhang, Y. (2019). What drives virality (sharing) of online digital content? The critical role of information, emotion, and brand prominence. *Journal of Marketing*, 83(4), 1–20.
- Tung, R. L., & Stahl, G. K. (2018). The tortuous evolution of the role of culture in IB research: What we know, what we don't know, and where we are headed. *Journal of International Business Studies*, 49(9), 1167–1189.
- Tung, R. L., & Verbeke, A. (2010). Beyond Hofstede and GLOBE: Improving the quality of cross-cultural research. *Journal of International Business Studies*, 41(8), 1259–1274.
- Tyrväinen, O., Karjaluoto, H., & Ukpabi, D. (2023). Understanding the role of social media content in brand loyalty: A meta-analysis of user-generated content versus firm-generated content. *Journal of Interactive Marketing*, 58(4), 400–413.
- Viswanathan, V., Malthouse, E. C., Maslowska, E., Hoornaert, S., & Van den Poel, D. (2018). Dynamics between social media engagement, firm-generated content, and live and time-shifted TV viewing. *Journal of Service Management*, 29(3), 378–398.
- Wahid, R., Karjaluoto, H., Taiminen, K., & Asiati, D. I. (2023). Becoming TikTok famous: Strategies for global brands to engage consumers in an emerging market. *Journal of International Marketing*, 31(1), 106–123.
- Wang, P., & McCarthy, B. (2021). What do people “like” on Facebook? Content marketing strategies used by retail bank brands in Australia and Singapore. *Australasian Marketing Journal*, 29(2), 155–176.
- Wang, Y. Y., Guo, C., Susarla, A., & Sambamurthy, V. (2021). Online to offline: The impact of social media on offline sales in the automobile industry. *Information Systems Research*, 32(2), 582–604.
- Yang, M., Ren, Y., & Adomavicius, G. (2019). Understanding user-generated content and customer engagement on Facebook business pages. *Information Systems Research*, 30(3), 839–855.
- Yang, R., Shaheer, N., Wang, Y., & Li, Z. A. (2025). The internationalization of digital cultural content creators on global social media: Navigating virtual outsidership in a borderless space. *Journal of International Business Studies*, 56(8), 1010–1028.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

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