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# When social media act as parenting advice: Indonesian mothers' understandings of formula milk branded content on Instagram

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Despite Indonesia's tightening regulations on breast-milk substitute (BMS) promotion, enforcement gaps persist as branded content on Instagram blurs the line between parenting education and commercial advertising. This study examines how BMS branded content is produced by brand managers and interpreted by mothers within this regulatory ambiguity. Using a critical interpretive grounded theory design, data were collected through two focus group discussions with twelve mothers and semi-structured interviews with three brand managers, analyzed via *in-vivo* and thematic coding guided by Ashley and Tuten's typology. Mothers consistently decoded branded content as credible parenting guidance across three frames: functional (nutritional information), emotional (bonding and caregiving norms), and experiential (actionable routines). Brand managers, however, described the same content as compliance-driven and algorithmically optimized. Engineered for resonance rather than genuine education. This divergence reveals a structural gap between industry encoding and audience decoding, through which commercially engineered content gains legitimacy as parenting support while subtly circumventing formal advertising restrictions. The findings call for clearer regulatory classification of branded content, stronger digital enforcement of the WHO Code, and enhanced maternal digital health literacy to protect breastfeeding norms in algorithm-driven media environments.

### KEYWORDS

branded content, breast-milk substitutes marketing, encoding and decoding, health promotion, infant formula regulation, maternal digital media literacy, Indonesia

## 1 Introduction

The infant formula (IF) and breast milk substitute (BMS) industry has undertaken commercial marketing since its development, coinciding with the advancement of chemistry and food preservation technologies in the late 20th century (Stevens et al., 2009; Pogačar et al., 2018). In Indonesia, the growth of the IF market has paralleled a concerning decline in breastfeeding rates from 68.7% in 2018 to 56.9% in 2021, with only a modest upturn to 63.9% in 2023, still below previous levels by 4.84% from 5 years ago (Kementerian Kesehatan Republik Indonesia, 2018, 2019, 2020, 2021, 2022, 2023, 2024; Baker et al., 2021). Indonesia ranks fourth globally in population (United Nations, Department of Economic and Social Affairs, Population Division, 2023) and seventh by GDP at purchasing power parity (World Bank, 2023),

positioning the country as a major target for infant formula market expansion, with market projections estimated to reach US\$15.4 billion by 2030, a significant rise from US\$8.4 billion in 2022 (Coherent Market Insight, 2024). Despite the introduction of stricter advertising restrictions under Government Regulation No. 28/2024, Article 33(e) (Presiden Republik Indonesia, 2024), which prohibits the promotion of breast milk substitutes through any form of media, enforcement challenges persist. Indeed, Green et al. (2021) found that 93% of Indonesian mothers were exposed to BMS promotion outside the health system, including through television, social media, and print media, underscoring the scale of commercial reach in the country. Industry actors appear to reinterpret the regulatory structure and argue that branded content on social media does not constitute formal advertising. This ambiguity is further compounded by the scope of earlier regulations, which primarily focused on products intended for infants below 12 months of age. As a result, companies strategically engage in cross-promotion by marketing follow-on formulas and growing-up milks for children above 12 months products that are not explicitly categorised as breast milk substitutes under certain interpretations of the law. The persistent decline in breastfeeding also reflects the IF industry's sustained promotional efforts through healthcare channels, including hospitals, clinics, and maternity facilities, often by distributing free samples, informational leaflets, or branded merchandise (Briawan, 2004; Barennes et al., 2012; Harris and Pomeranz, 2020; Takako et al., 2020; Boccolini and Victora, 2022; World health organization (WHO) and United Nations Children's Fund (UNICEF), 2022; Capili et al., 2023; Rollins et al., 2023).

While IF brands have strategically evolved to social media platforms, particularly Instagram where regulations remain ambiguous, thereby blurring the boundary between commercial promotion and parental education. This shift corresponds with mothers' online behaviour patterns: they increasingly seek digital spaces for information, entertainment, and social connection to satisfy emotional and practical needs related to parenting (Kreps and Neuhauser, 2010; Moon et al., 2019). The Uses and Gratifications Theory (UGT) (Griffin et al., 2022) provides a conceptual lens for understanding this phenomenon, suggesting that individuals actively select media content that fulfils their specific informational and emotional needs.

To address the specific needs of mothers, marketers attempt to align their strategies with established media consumption patterns. By implementing creative strategies tailored to the diverse needs of mothers, marketers can enhance the engagement and effectiveness of their content. This strategic alignment not only increases the relevance of the content but also optimizes the impact of marketing efforts by meeting the practical needs of mothers in their media consumption (Dolan et al., 2016, 2019; Rollins et al., 2023). This aligns with what Frazer (1983) reviewed, the most imperative marketing decision is the selection of a creative advertising strategy. This strategy sets the character of other promotions. Consistently, Ashley and Tuten (2015) states that creative strategies are commonly found in social media content to enhance engagement between marketers and the target audience, such as the IF industry and mothers (Jones et al., 2022). Frazer (1983) adds that the identification of creative strategy is usually tailored to match the purpose of advertisement functions to maximize effectiveness, and the usage can overlap or be combined. This association is particularly visible in the IF industry's shift toward branded content, which integrates product narratives into parenting discourse, leveraging emotional storytelling and pseudo-educational messaging to foster trust and engagement.

On top of that, Hidayana (2017) emphasizes that Indonesia's relatively weak enforcement of the WHO Code makes it a target for IF marketing expansion, particularly given its high birth rates and large child population. Strengthening national regulation is therefore imperative, and not only to ensure the dissemination of educational content on appropriate IF use but also to prevent commercial interference within public health communication (World Health Organizations, 2020; Kementerian Kesehatan Republik Indonesia, 2024). An effort of enhancing digital marketing regulations is also consistent with the United Nations' Sustainable Development Goals (SDGs), specifically Goals 2 (Zero Hunger), 3 (Good Health and Well-being), and 5 (Gender Equality), which emphasize the protection of maternal and child health.

The marketing of commercial milk formula remains a critical global concern. Although the *International Code of Marketing of Breast-milk Substitutes* (Forsyth, 2017) was designed to prevent deceptive and idealized marketing, recent evidence reveals that such practices persist in more subtle digital forms. In Indonesia, studies by Hidayana et al. (2023) and the *Breaking the Code* (Indonesian Breastfeeding Mothers' Association, 2021) report have shown how brands exploit digital affordances, such as influencer marketing, algorithmic targeting, and emotional storytelling to idealize formula feeding as modern and aspirational. These findings mirror global patterns: investigations in Ecuador (Caicedo-Borrás et al., 2021), the Philippines (Sobel et al., 2011), and other contexts (Hastings et al., 2020; Pérez-Escamilla et al., 2023) document persistent WHO Code violations across health facilities, media channels, and points of sale, reflecting the industry's capacity to adapt promotional strategies beyond conventional regulatory reach.

Branded content, as conceptualized by María and Benito (2023), thus becomes central to this transformation. It merges promotional intent with editorial-style communication to build emotional resonance and informational credibility. On Instagram, formula milk brands exploit what Abidin (2017, p. 7) calls 'calibrated amateurism,' the deliberate performance of unfiltered domestic authenticity, to embed subtle product references within seemingly genuine parenting narratives. These campaigns construct a moralized and emotionally appealing version of motherhood, one that equates responsible parenting with informed consumerism.

This research aims to disclose how branded content operates as a covert promotional mechanism that indirectly violates the WHO Code. It explores how mothers decode these messages and how brand managers rationalize them within Indonesia's regulatory and cultural context. Employing a critical interpretive grounded theory approach, the study integrates data from focus group discussions with mothers and interviews with brand managers to examine how message strategies, sales promotions, and user-generated content co-produce persuasive narratives on Instagram. Using Ashley and Tuten's (2015) analytical typology as a guide, the study remains open to emergent categories that reflect evolving digital practices.

Eventually, this study pursues to expose how formula milk marketing in digital spaces reshapes parental attitudes, belief systems, and perceptions of care, often under the guise of information-sharing or social connection. It highlights the urgent need for stronger policy interventions and clearer digital communication ethics to protect maternal autonomy and public health in the era of algorithmic advertising.

## 2 Literature review

The rise of social media platforms such as Instagram has transformed the landscape of marketing communication, shifting the focus from traditional advertising to branded content, a hybrid form of promotion that merges commercial intent with editorial or entertainment value (Choi, 2015; Asmussen, 2016). Unlike conventional advertising, which relies on explicit persuasion, branded content often integrates informational, emotional, and experiential cues to build engagement and trust through subtle meaning-making processes (Appel et al., 2020).

Ashley and Tuten (2015) proposed a comprehensive typology of branded content strategies encompassing *message strategies*, *sales promotions*, and *user-generated content (UGC)*. Within message strategies, three sub-categories, *functional*, *emotional*, and *experiential appeals* define how brand communication seeks to create value perceptions. *Functional appeals* focus on product utility and benefits; *emotional appeals* suggest psychological connections and affective responses, while *experiential appeals* simulate sensory and participatory engagement. These strategies form the spine of how audiences interpret marketing messages, particularly within digital surroundings where promotional boundaries are blurred. In this sense, Instagram purposes as both an advertising medium and a space of meaning negotiation (Djafarova and Bowes, 2021; Cheung et al., 2022).

Given the fast growing of parenting, feeding, and health-related content on these platforms, scholars have called for broader methodological approaches to examine motivations, content types, and potential harms in these emerging environments (World health organization (WHO) and United Nations Children's Fund (UNICEF), 2022). This need is particularly urgent along with growing evidence that commercial milk formula (CMF) marketing, while not fundamentally unethical, consistently employs persuasive digital strategies that alter scientific information, influence parental perceptions, and challenge breastfeeding norms (Sobel et al., 2011; Rollins et al., 2023). Persistent violations of the International Code of Marketing of Breast-milk Substitutes prove that current governance mechanisms remain inadequate. Consequently, we need research for stronger policy safeguards and structural support systems that enable women to breastfeed without commercial interference (World health organization (WHO) and United Nations Children's Fund (UNICEF), 2022; Rollins et al., 2023). By understanding how audiences decode branded messages requires examining both strategic intent (from the brand side) and interpretive agency (from the audience side).

The effectiveness of branded content does not depend solely on message design but also on how audiences interpret and legitimize the communication within their everyday experiences. In digital environments, persuasion operates less through explicit argumentative structure and more through perceived credibility, emotional resonance, and contextual relevance (Pollay and Mittal, 1993; Wilking, 2020; World health organization (WHO) and United Nations Children's Fund (UNICEF), 2022). Mothers, as a key audience for parenting-related products, construct meaning based on relational trust, caregiving values, and social responsibility (Moon et al., 2019). Developmental and nutritional claims embedded in toddler milk marketing often align with these caregiving values, making such messages appear supportive and informative, even when scientific evidence remains contested (Choi et al., 2020). This dynamic reflects Frazer (1983) notion of resonance, whereby marketing communication becomes persuasive by echoing deeply held emotional experiences and cultural

expectations. By mirroring everyday caregiving realities, branded content can appear intuitive and trustworthy, amplifying the perceived legitimacy of its claims while softening awareness of its commercial intent.

Marketing communication within the infant formula industry has long been subject to ethical inspection due to its proximity to public health discourse and breastfeeding advocacy. The World Health Organization's International Code of Marketing of Breastmilk Substitutes prohibits promotional practices that idealize formula feeding or undermine breastfeeding (World Health Organization (WHO) and United Nations Children's Fund (UNICEF), 1981). However, digital media presents new challenges in urging these ethical boundaries. Studies have documented how formula milk brands employ subtle narrative techniques, including emotional storytelling, influencer partnerships, and parent-focused education to avoid regulatory restrictions while maintaining brand visibility (Barennes et al., 2012; Hastings et al., 2020; Mota-Castillo et al., 2023). In this emerging context, branded content functions as an ethical grey zone (Indonesian Breastfeeding Mothers' Association, 2021), where promotional intent is disguised as educational or social communication. Scholars argue that this strategy reflects a shift toward "soft power marketing," a form of persuasion embedded within everyday digital discourse (Hastings et al., 2020; Mota-Castillo et al., 2023). Consequently, critical interpretive research is needed to expose how mothers' belief systems are shaped by content that appears informational yet vaguely reinforces market ideologies. This research positions itself within that intersection, examining how message strategies influence mothers' perceptions, while also revealing industry rationales that perpetuate ethically ambiguous practices.

The study is anchored in grounded theory methodology (Charmaz, 2001) to inductively develop conceptual categories emerging from data rather than pre-established theory. However, unlike classic grounded theory, this research adopts a critical interpretive stance. Recognize that meaning-making is situated within structures of power, regulation, and ideology (Georgiou et al., 1996; Denzin and Lincoln, 2018). This dual orientation allows the researcher to interpret not only *what* participants say but also *why* and *under what conditions* these meanings emerge. By analyzing both mothers' interpretations and brand managers' strategic reasoning, this approach provides a holistic understanding of how branded communication operates as a conversational system. Coding procedures followed Ashley and Tuten (2015) conceptual model as a structural reference but remained open to emergent categories, which illuminate how power moves between audience perception and corporate intent.

The conceptual foundation of this research synthesizes three key domains that involve branded content strategy (Ashley and Tuten, 2015) distinguishing message appeals, promotional tactics, and participatory mechanisms. Second, interpretive and persuasive communication perspectives, including encoding/decoding and resonance (Hall, 1980; Frazer, 1983) explain how audiences construct meaning from informational and emotional cues embedded in branded content. Rather than assuming a linear progression from belief to behavioral intention, this perspective emphasizes how legitimacy is negotiated through perceived credibility, emotional alignment, and cultural relevance. Third, critical marketing ethics (World Health Organization (WHO) and United Nations Children's Fund (UNICEF), 1981; Indonesian Breastfeeding Mothers' Association, 2021), situates formula milk promotion within broader debates about responsibility, health communication, and parental trust. Together, these domains

guide the study’s inquiry into how mothers interpret branded messages as parental guidance and how industry professionals rationalize such strategies within ethical and regulatory constraints. This dual perspective bridges individual meaning-making with institutional discourse, highlighting the cultural and moral dynamics underpinning digital brand communication in the parenting domain.

### 3 Methodology

#### 3.1 Research design

This study employs a critical interpretive grounded theory design to examine how formula milk branded content on Instagram is produced, circulated, and interpreted within Indonesia’s evolving regulatory context. Grounded theory provides the analytical tools to inductively generate conceptual categories from empirical data (Charmaz, 2001), while the critical orientation foregrounds how power, regulation, and commercial interests shape meaning-making processes (Denzin and Lincoln, 2018). This approach is particularly appropriate given increasing evidence that BMS marketing has migrated into subtle, algorithmically mediated forms, often evading conventional monitoring systems (Mota-Castillo et al., 2023). Recent investigations into digital marketing of breast-milk substitutes show that formula brands strategically adapt to regulatory gaps by embedding promotional cues within educational, emotional, and community-oriented content (World health organization (WHO) and United Nations Children’s Fund (UNICEF), 2022; Hidayana et al., 2023). Instagram, in particular, has emerged as a space where commercial and parental discourses are blurred, and where mothers actively seek information, emotional support, and social connection (M&C Saatchi World Services, 2022). These dynamics underscore the need for a qualitative methodology that can capture both audience interpretation and industry intent, including how actors navigate or reinterpret legal restrictions such as Indonesia’s Government Regulation No. 28/2024, which prohibits BMS marketing across all media. This research design

therefore integrates the perspectives of mothers as recipients of formula milk messaging and brand managers as strategic producers, enabling a holistic analysis of how message strategies are crafted, interpreted, and normalized.

#### 3.2 Data collection

Two focus group discussions (FGDs) were conducted with twelve mothers who had previously engaged with formula milk content on Instagram. Mothers were eligible to participate if they were active Instagram users, had current caregiving responsibilities for an infant or young child aged between 6 and 36 months at the time of data collection in 2023 (see Table 1), had prior exposure to branded breast-milk substitute (BMS) content on Instagram, and were willing to participate in a 90-min online focus group discussion via Zoom with informed consent for audio recording. Feeding practices varied across the sample and included exclusive formula feeding, mixed feeding, and continued breastfeeding with supplementation; exclusive formula use was not required for participation, as eligibility was determined by prior engagement with BMS-related content rather than feeding type. Mothers were excluded if they did not use Instagram, had no exposure to formula milk-related content, were not currently involved in infant or young child caregiving, were employed by or affiliated with formula milk companies or related marketing agencies, or were unwilling or unable to participate in online discussions. Participants were recruited via direct messages (DMs) using purposive sampling (Vehovar et al., 2016; Cisco, 2017) to ensure relevance to the study context. They were divided into two groups of six to support balanced interaction and in-depth discussion. All focus group sessions were conducted via Zoom. Each session began with brief warm-up interactions, followed by the presentation of selected branded posts to stimulate recall and reflection on their associated meanings. Participants then shared their views, emotions, and experiences concerning the content’s message, tone, and perceived intent. All discussions were audio-recorded with informed consent and transcribed verbatim to preserve linguistic nuance, and anonymity was maintained throughout.

TABLE 1 Demographic characteristics and infant feeding profiles of participating mothers.

No	Breastmilk consumption duration	Consumption duration (starting month)	Education	Occupation
1	12 months	12 months	Bachelor’s degree	Private employee
2	2 weeks	12 months	High school	Housewife
3	24 months	22 months	High school	Housewife
4	2 months	14 months	Bachelor’s degree	Housewife
5	15 months	15 months	Diploma degree	Housewife
6	Currently feeding	12 months	High school	Housewife
7	6 months	7 months	Bachelor’s degree	Entrepreneur
8	21 months	15 months	Junior high school	Housewife
9	6 months	24 months	n/a	Private employee
10	24 months	24 months	High school	Housewife
11	uncertain	26 months	Bachelor’s degree	Housewife
12	24 months	12 months	High school	Housewife

To complement consumer perspectives, semi-structured interviews were conducted with three brand managers representing the formula milk sector (Table 2). Managers were eligible if they were directly involved in the development, management, or strategic oversight of branded BMS content or social media planning and had at least 3 years of professional experience working with formula milk products. Professionals without direct strategic involvement in BMS communication or without sufficient sector experience were not included. Recruitment was conducted via snowball sampling (Johnson, 2015), through professional networks in marketing communication and public relations. Due to time and resource constraints, each manager was interviewed individually via Zoom for approximately 45–60 min. The interviews explored strategic rationales underlying branded content development, particularly message framing, promotional tactics, and the integration of user-generated content (UGC). All recordings were transcribed verbatim (MacFarlane and O’Reilly-De Brún, 2012), anonymized, and stored securely.

### 3.3 Data analysis

Analysis followed a two-cycle grounded coding process (Saldana, 2013). First Cycle for the *In-Vivo* Coding: participant expressions were captured verbatim as *in-vivo* codes to foreground their linguistic and emotional authenticity. This approach allowed theoretical insights to emerge directly from participants’ own words rather than from pre-imposed categories. Second-cycle coding (axial and thematic) then organized the data into themes and sub-themes guided by Ashley and Tuten (2015) branded content typology, encompassing Message Strategies, Sales Promotions, and User-Generated Content (UGC). Within Message Strategies, analytical distinctions such as Functional, Emotional, and Experiential Appeals were applied.

While this typology provided structure, the analysis remained open to emergent categories, particularly those mirroring ethical reflections, managerial reasoning, or regulatory considerations beyond the Ashley and Tuten model. This openness ensured sensitivity to contextual nuances in both consumer and industry narratives. A comparative matrix was developed to analyse patterns across data sources, contrasting mothers’ decoding (interpretations, emotions, and beliefs), and managers’ encoding (strategic intent, ethical framing, and regulatory navigation). To facilitate systematic comparison, the analyzed data were organized and examined within this matrix in tabular form, aligning participant excerpts, coding categories, and interpretive themes. This dual analysis allowed examination of where audience meaning making aligns with or diverges from industry objectives, an approach consistent with interpretive work in digital BMS marketing and public health communication.

The credibility of findings was enhanced through methodological triangulation (Thompson, 2014; Proudfoot, 2022) between two participant groups, mothers as audience members and brand managers as message producers. Allowing for interpretive cross-verification (Baker and Hart, 2016). A reflexive stance was maintained throughout the

research process, with the researcher recording analytic memos to acknowledge positionality and minimize bias in interpretation. Dependability was achieved through transparent documentation of procedures, including coding steps, theme construction, and interpretive decisions. Transferability was supported by detailed contextual descriptions of participants and the online communication environment.

## 4 Result

### 4.1 Overview of emerging interpretive patterns

Analysis of the focus group discussions disclosed that mothers’ interpretations of formula-milk branded content on Instagram were shaped mainly through message strategies, with mothers repeatedly positioning to the informational and emotional cues embedded in the posts. Rather than perceiving the content as overt advertising, mothers described it as offering guidance, assurance, and educational value, echoing broader shifts in digital promotional tactics identified in recent BMS marketing studies. Sales-related indications and participatory invites (such as contests) were also recognised, though typically in relation to their utility or convenience rather than as explicit commercial persuasion. Across both focus groups, mothers’ sense-making processes suggested three recurring interpretive frames such as informational usefulness, emotional reinforcement of caregiving norms, and activity-based or experiential modelling. These interpretive frames closely align with the functional, emotional and experiential appeals described in the Ashley and Tuten (2015) framework. Mothers rarely labelled these posts as advertisements; rather, they decoded them through the lens of everyday parenting, nutrition concerns, and the aspiration to perform “good motherhood.”

### 4.2 Message strategies as dominant interpretive frame

Functional appeals appeared consistently across mothers’ accounts and formed one of the most frequently referenced sub-themes in the analysis (Table 3). Mothers described the branded posts as sources of information about milk composition, nutritional content, and preparation steps. They often used the posts to help them understand ingredients such as DHA, omega-3, or iron, and several participants highlighted the clarity of serving instructions. *In-vivo* expressions such as “learn,” “clear serving size,” and “important information” were commonly noted during coding.

“By looking at this content, even lay people can understand what’s in the milk. The content also shows a clear serving size, so the information here feels really important (GA, 35 years old)”

TABLE 2 Professional and demographic characteristics of brand managers responsible for branded BMS content on Instagram.

No	Duration of employment	Agency	Education	Occupation
1	27 months	Multinational	Master’s degree	Social Media Manager
2	39 months	National	Bachelor’s degree	Social Media Manager
3	30 months	Multinational	Bachelor’s degree	Social Media Manager

Another reflected on the educational utility is stated as:

*“The information is important. I learned that every glass of milk contains fish oil and other beneficial ingredients. It’s good, but could they combine the information in one content? Because sometimes the information feels unclear. I understand about the milk’s ingredients and the results of drinking it. Usually I just like or comment, and if a friend asks, I can tag the post to share the nutritional information (MA, 25 years old)”*

A similar pattern appeared when mothers referred to visuals of children consuming milk in the posts. One participant explained:

*“The content shows a child drinking milk enriched with calcium, omega-3, and iron. It conveys that such nutrients help children become more active and energetic, and it is considered important because it educates parents about these benefits (MTA, 32 years old).”*

Across the focus groups, mothers described using this type of content to confirm quantity instructions (in grams or measuring spoon), compare nutritional features, or verify perceived benefits. These descriptions recurred throughout the dataset and contributed to the development of the functional appeals sub-theme. These interpretations illustrate how mothers framed branded content as nutritional education, not commercial promotion. Posts were often used as comparative references when evaluating different milk choices. Through this lens, informational messaging became a form of parental support, thereby softening or disguising the commercial motive embedded in the content.

Another noticeable sub-theme is emotional appeal, especially when posts portrayed bonding, independence, and politeness in children. Mothers repeatedly described feelings of “happy,” “touched,” and “emotionally moved” when content showed children acting respectfully or drinking milk independently. Such responses illustrate how branded content was interpreted not only as social media content but also as parenting advice that underpins normative emotional expectations of good motherhood. Experiential appeals appeared in mothers’ accounts of trying practices at home for instance, suggesting that branded content can perform as an instructional model for family routines.

*“This content is pretty good; it teaches children to be independent, just like making and drinking by themselves. The way of preparing is very informative, and it feels relevant because it matches what I already do with my child. The video really educates children to learn independence, and I want my child to be like that (GA, 35 years old).”*

Across the dataset, emotional reactions were tied to specific moments within the posts, including expressions of affection, cheerful interaction, or the portrayal of a child’s progress. These repeated descriptions contributed to the development of the emotional appeals sub-theme.

Although less frequent than message strategies, sales promotions were regularly interpreted as discount or price cues. Every promotional code fell under this sub-theme, highlighting that mothers considered content stressing affordability as directly relevant to household budgeting. Typical comments included “comprehensive price for the formula,” promotion is helpful,” and “help to manage monthly spending.” These findings point to the importance of price-based appeals in contexts where economic considerations strongly shape parental choice.

*“This content is the most interesting because it shows the price and let me compare with the special promo. The price information feels complete. Getting this information is very important, and if there’s a promotion, I would even buy double (GA, 35 years old).”*

This contrasts with other mothers who expressed scepticism about the relevance of price promotions, aiming out that such deals were rarely reachable in their local shopping contexts. As one participant noted, “I rarely get promos because the nearest store is far from Alfamart or Indomaret (minimarket names), and in the local supermarket there are no promotions. “Another added, “I have never received a promotion when buying from conventional shops,” while others remarked, “Usually I just look for information first, since promos are not always available.” These divergent narratives suggest that while price cues can strongly motivate some mothers, their practical relevance is uneven and reliant on retail access.

TABLE 3 Thematic structure of mothers’ interpretations of branded BMS content on Instagram.

Theme	Sub-theme	Description of interpretive pattern	Illustrative <i>in-vivo</i> codes/ participant quotes
Message strategies (dominant interpretive frame)	Functional appeals	Mothers interpret posts as <i>educational, nutritional guidance, and practical instructions</i> rather than advertisements.	“Even lay people can understand what’s in the milk”; “clear serving size”; “important information”; “I learned about the ingredients”; “I tag it for friends, so they know the nutrition”
	Emotional appeals	Posts evoke feelings tied to caregiving norms (bonding, politeness, independence). Mothers read emotional cues as <i>parenting advice and aspirational behaviour</i> .	“Touched”; “happy”; “want my child to be like that”; “children acting politely”; “independence is good for them”
	Experiential appeals	Content seen as <i>actionable models</i> for home routines, inspiring mothers to try similar activities.	“Matches what I already do with my child”; “I want to practice what the video shows”; “teaches them to make and drink by themselves”

Mothers' accounts also revealed cyclical patterns in how they interpreted user-generated content (UGC) elements within the branded posts (Table 4). Through coding, two sub-themes emerged. They are participatory invitations and incentive-related motivations. Across the focus groups, mothers described UGC prompts, such as photo contests or hashtag challenges, as activities they could do with their children. These posts were often referred to as "creative," "interesting," or suitable for "bonding." Expressions such as "the contest offered was great to create bonding" illustrated how mothers positioned these posts as opportunities for joint activity. One participant noted:

*"I once joined a contest as an outdoor activity with my child, since we had a good video that fit the theme... the contest motivates children to be active... seeing reels from others who joined was inspiring for new activities (NI, 23 years old)."*

Alongside these activity-oriented descriptions, mothers also referred to the presence of prizes or rewards in UGC posts. *In-vivo* expressions such as "happy to join because of the award" and "there is a decent prize motivation" indicated that incentives shaped part of their attention to these posts, even when not the main reason for participating. The same participant explained:

*"The prize was less important, and what mattered was the activity. But parents must be careful, since many contests require a registration fee if you want to claim the prize (NA, 23 years old)."*

Several mothers added contextual considerations regarding privacy and exposure when sharing child-related content online. Statements such as "Instagram is open to public" and "my account can be made private" were coded as part of this sub-theme. Across the dataset, UGC posts were therefore oriented to through both activity-based and incentive-related meanings, with each sub-theme appearing consistently in mothers' descriptions.

### 4.3 Comparative perspective: brand managers' interpretations

The interviews with the three brand managers revealed several frequent themes that describe how branded content for formula milk is purposefully created, regulated, and adapted for Instagram.

Unlike the spontaneous, emotionally driven interpretations suggested by mothers, the managers spoke in well-thought-out, operational terms, emphasizing scientific precision, compliance commitments, brand identity, and digital performance. Their accounts illuminate the backstage practices that administer how informational, emotional, and participatory messages are encoded before being disseminated to mothers through social media (Table 5).

Across all interviews, managers highlighted message strategy as the principal foundation of content creation. Functional information, such as nutrient composition and developmental benefits was described not as optional content but as a mandatory communication layer. These cues must be accurate, validated, and presented in a way that feels "light" and "easy to digest," but never promotional. As one manager explained that "The information must be correct first. If we mention DHA or omega-3, it must be scientifically accurate. Claims must be handled very careful (SS, 36 years old)" Another manager echoed this view, describing informational content as a targeted reassurance mechanism, "We can't exaggerate anything. If we say something about benefits, it must be approved first. Everything must follow the guideline (SO, 32 years old)."

Beyond functional messaging, emotional tone was treated as a cautious creative tool intended to augment resonance. Rather than expressing genuine affect, managers spoke of designing emotions strategically such as, "The story must be relatable; it needs warmth. Tone is important for engagement (SO, 32 years old)." This emotional design work often aimed to produce an inspirational atmosphere showing happy children, active routines, or confident mothers, but had to be operationalized within rigorous parameters. One manager noted the ethical sensitivity involved, "We avoid anything that creates mom guilt. Content should support, not push (PK, 35 years old)."

Experiential or demonstrative content (such as tutorials or step-by-step routines) was described as a high-performing format on Instagram, selected mostly for its algorithmic benefits. A manager described this as, "Step-by-step content always performs well. Demonstration content is engaging. But we must be careful, so it doesn't look like direct feeding (SS, 36 years old)."

Although sales promotions play a part in content strategy, managers highlighted that Instagram content cannot contain overt promotional language. Their approach mirrored funnel-thinking rather than traditional discount-based promotion. One manager described this subtle method, "We can't hard-sell. The goal is simply to increase the metrics. Conversion must feel smooth (SS, 36 years

TABLE 4 Mothers' interpretations of promotional mechanisms embedded in branded breastmilk substitute (BMS) Instagram content.

Theme (Ashley and Tuten)	Sub-theme	Interpretive characterisation	Illustrative <i>in-vivo</i> codes/quotes
Sales promotions	Price/discount cues	Interpreted as <i>helpful for budgeting</i> and <i>practical</i> , but not always applicable due to store accessibility.	"Most interesting because it shows the price"; "promo helps manage monthly spending"; "I rarely get promos where I live"; "supermarket never has it"
	Invitation to participate	Mothers perceive contests as <i>family bonding</i> or <i>fun activities</i> .	"Create bonding"; "interesting contest"; "creative content"
User-generated content (UGC)	Incentive-driven participation	Participation often motivated by <i>tangible rewards</i> ; also noted concerns about privacy and contest fees.	"Happy to join because of the award"; "careful, some contests require fees"; "inspiring reels from others"

TABLE 5 Brand managers' interpretations of strategic and regulatory practices in branded breastmilk substitute (BMS) Instagram content.

Emergent managerial theme	Sub-theme	Interpretive insight	Illustrative <i>in-vivo</i> codes/quotes (English translation)
Message strategies	Functional messaging	Managers highlight scientific cues (DHA, omega-3, iron) to build credibility and reassure mothers.	"DHA, omega 3, iron"; "Information must be correct first"; "Must be scientifically accurate"; "Claims must be careful."
	Emotional messaging	Emotional tone is engineered as a resonance tool, not as genuine parenting affect.	"Story must be relatable"; "Needs warmth"; "Tone is important for engagement"; "Active child, smart mother—that angle works."
	Experiential/demonstrative content	Demonstrations are chosen for high IG performance and algorithm reward but regulated to avoid implying feeding.	"Step-by-step performs well"; "Demo content engages"; "Be careful so it does not look like direct feeding"; "Reels is safer."
Sales promotion and funnel metrics	Engagement to conversion funnel	Promo elements are metrics-driven signals; must be subtle to avoid Code violations.	"Cannot hard-sell"; "Just increase the metrics"; "Conversion must feel smooth"; "Promo wording must be subtle."
	Platform performance optimization	Content is shaped to satisfy Instagram algorithms (retention, clarity, format).	"Highest retention"; "Must align with algorithm"; "Clean visuals help audience stay."
Advertising beliefs and ethics	Regulatory compliance (who code)	Compliance defines decisions; teams avoid explicit claims and insert disclaimers.	"Must follow WHO Code"; "Not allowed to hard-sell"; "Add disclaimer"; "This is sensitive, we cannot violate anything."
	Internal ethical guardrails	Managers actively try to avoid misleading content or inducing guilt.	"Do not make mom guilt"; "Show empathy to mothers"; "Avoid leading claims"; "Content should support, not push."
Client and branding logic	Client control over messaging	Brand guidelines override creative preference; tone and visuals are rigid.	"Client wants everything on-brand"; "Tone must match"; "Cannot go outside the guideline"; "Brand voice already set."
	Visual and tonal consistency	Identity must be unified across TVC, KV, and IG for branding coherence.	"Must match the TV commercial"; "Visual identity must be consistent"; "Campaign must be seamless."
Creative execution and consistency	Format and aesthetic alignment	Clean aesthetics and templated shot-lists signal professionalism and maintain engagement.	"Clean look is mandatory"; "Eye-friendly"; "Reels outperform static"; "Shot list is templated."
Industry practices and competition	Competitor benchmarking	Strategies mirror competitors to maintain parity and avoid falling behind.	"Other brands do the same"; "Monitor competitors"; "Everyone uses child development angle."
	Market positioning under regulation	Education becomes competitive currency because direct advertising is restricted.	"We differ in delivery style"; "Since we cannot sell directly, we push education."
Critical reflections	Ethical ambivalence	Managers express discomfort about manipulating maternal emotions or crossing ethical lines.	"Sometimes we forget it's about mothers, not sales"; "This is tricky—we must be careful"; "We do not want to mislead."
Targeting and audience understanding	Mothers as strategic audience	Mothers are categorised by needs, pain points, and emotional triggers.	"Mothers need clarity, relatable content"; "They want simple education"; "Match young mothers' pain points."
Platform and engagement strategy	Multi-platform integration	IG acts as the entry point leading to microsites, e-commerce, and CRM ecosystems.	"Must connect IG to microsite"; "Journey must be smooth"; "IG is not the end—it's the entry point."

old)." Managers also referenced the necessity to adjust content to platform algorithms rather than audience need alone, "This format has the highest retention. It must align with the algorithm and clean visuals help the audience stay (SS, 36 years old)." These standpoints illustrate that promotions, when used, are conceptualized as performance levers rather than direct calls-to-purchase.

A major topic raised across interviews was submission with the WHO Code and internal ethical guidelines. Managers described meticulous review procedures involving legal teams, regulatory officers, and strict brand protocols. One remarked, "We must follow

the WHO Code. We're not allowed to hard-sell. There must be a disclaimer. This is sensitive, and we must not violate anything (SS, 36 years old)." Beyond legal compliance, managers emphasized moral obligation, "Don't make mom guilt. Avoid leading claims. Show empathy to mothers." These insights show that ethical considerations actively structure message framing, restricting what can be shown visually and described verbally.

Another principal theme concerned the influence of internal brand guidelines. Managers described how creative freedom is often secondary to corporate mandates, "The client wants

everything on brand. The tone must match. We can't go outside the guideline." Brand uniformity across platforms was treated as a strategic prerequisite, "It must match the TV commercial. Visual identity must be consistent. One campaign must be seamless on all channels." The rigor of branding standards displays how formula milk content is less a part of spontaneous communication and more a carefully assembled brand asset. Managers stressed clean visual aesthetics, templated shot lists, and structured creative layouts, "A spotless look is mandatory. It must be eye friendly. Reels are more effective than static posts." This suggests that creative execution is well-versed as much by audience expectations as by platform optimization.

Managers frequently referenced competitor movement as a guiding force, "Other brands do the same. We must monitor competitors. Everyone uses the child development angle." Because direct advertising is controlled, delineation occurs through subtle shifts in content style rather than product claims, "Since we can't sell directly, we push education instead."

Some managers communicated personal ambivalence about balancing ethical upkeep with brand responsibility, "Sometimes we forget it's about the mothers, not the sales. This is tricky, we must be careful." Such reflections highlight a nuance of tension between commercial objectives and ethical mindfulness within the industry. Managers steadily described mothers as a strategic audience segment whose emotional needs and browsing behaviors drive content design, "Mothers need clarity through relatable content. They want simple education. It must match their pain points." Finally, Instagram was seen not as a standalone promotional space, but as an entry point into wider digital ecosystems, it must connect from Instagram to the microsite. The journey must be smooth. Instagram is not the end; it's the entry point."

## 5 Discussion

This study examined how formula milk branded content on Instagram is produced, circulated, and interpreted within Indonesia's evolving regulatory environment. By integrating mothers' interpretations with brand managers' strategic accounts, the findings highlight a complex communicative ecosystem in which digital messages operate simultaneously as educational cues, emotional narratives, and commercially engineered strategies. Through the lens of critical interpretive grounded theory, the study demonstrates how meaning-making around formula milk content is shaped by uneven access to power, regulatory structures, and institutional intent.

### 5.1 Contradictory meaning-making (encoding and decoding)

A central insight concerns the disconnection between how branded content is encoded by brand managers and decoded by mothers. Mothers approached the content through the routines and emotions of daily caregiving. Seeking nutritional clarity, reassurance, and inspiration for parent-child activities. Many interpreted informational cues (e.g., ingredients, preparation steps, developmental benefits) as credible support for feeding decisions. Emotional and experiential elements were read as normative guidance on "good motherhood,"

reinforcing values such as independence, politeness, or bonding. For example, mothers described content as "helpful," "touching," or "inspiring," and one participant remarked that a contest post encouraged her child to be active because "seeing reels from others who joined was inspiring for new activities."

Brand managers, however, revealed that the same messages were shaped by an entirely different set of priorities that involves compliance with the WHO Code, internal ethical guardrails, branding uniformity, algorithmic optimization, and competitive benchmarking. Functional cues were not simply educational but were the result of careful legal vetting and scientific compliance. Emotional narratives were deliberately engineered to "relate" and "provide warmth" to increase engagement, rather than emerging organically from parenting experience. These differences align with Hall (1980) encoding-decoding context, where creators insert preferred meanings into content that audiences often accept as natural or authentic. Mothers' readings, in this case, reflect dominant-hegemonic interpretations that align with the brand's intended portrayal of care, support, and nutrition (de Oliveira-Cruz et al., 2024). Without full awareness of the commercial and regulatory structures guiding message design.

### 5.2 The soft power of branded content in BMS promotion

The findings contribute to growing evidence that formula milk branding has shifted from overt advertising to subtle content-based persuasion, as revealed in recent research on digital and influencer-led promotion strategies (Hastings et al., 2020; Rollins et al., 2023; Zhao et al., 2023; Aureoles-García et al., 2025; Ng et al., 2025). Managers repeatedly underlined the requirement to avoid explicit promotion due to regulatory constraints. Instead, they framed content as "education (Zhao et al., 2023)," "warm storytelling," or "simple guidance," even when aligned with commercial aims. This practice reflects global patterns in BMS marketing, where brands avoid conventional advertising restrictions by embedding promotional cues within parenting discourse, influencer partnerships, and emotional narratives (Hidayana et al., 2023; Pérez-Escamilla et al., 2023). The success of these strategies can also be understood through Frazer (1983) concept of resonance, where messages are constructed to echo the emotional experiences and cultural expectations of mothers. Brand managers explicitly referenced the need to mirror mothers lived realities. Such as "clarity," "relatable," and "warm" content that aligns with parenting norms Mothers' strong emotional responses to bonding and independence cues demonstrate the potency of this strategy. When content "sounds" like parenting advice rather than advertising, it blurs the distinction between support and persuasion, making regulatory violations more difficult to detect (Calvert, 2008; Moon et al., 2019; Capili et al., 2023; Hidayana et al., 2023; Rollins et al., 2023).

### 5.3 Alignment with mothers' needs: uses and gratifications

The prominence of informational, emotional, and experiential appeals observed in mothers' interpretations corresponds with the Uses and Gratifications Theory (UGT), which posits that audiences actively seek media content that meets cognitive, affective, social, or integrative needs (Dolan et al., 2016; Buzeta et al., 2020). Mothers in this study drew on branded content to fulfil multiple gratifications: acquiring nutritional knowledge, finding emotional

reassurance, and discovering new parenting practices. Brand managers were strongly aware of these patterns, explicitly tailoring message tone, visual style, and content format to meet these perceived needs (Li and Huang, 2016). Yet, while mothers approached content for personal benefit, managers approached the same content through strategic intent. Connecting gratifications with brand objectives, often through subtle or hidden mechanisms.

#### 5.4 Ethical tensions and regulatory ambiguity

Another significant finding concerns the ethical landscape in which formula milk branding operates. Managers repeatedly stressed their obligation to uphold WHO Code regulations (World Health Organization (WHO) and United Nations Children's Fund (UNICEF), 1981; Balakrishnan, 2021), avoid hard selling, and mitigate emotional harm such as “mom guilt.” Simultaneously, their strategic decisions in optimizing for algorithms, following competitor trends, reinforcing brand identity that reflect the pressures of a competitive commercial market (Jones et al., 2022; Rollins et al., 2023). These dual commitments reveal a structural tension where managers must maintain compliance while still guaranteeing brand visibility and performance. This tension was absent from mothers' interpretations, suggesting asymmetrical understanding of the regulatory space.

The study demonstrates that Instagram serves as an ethical grey zone where promotional intent is masked as parental education or community engagement. This is consistent with reports documenting how BMS brands exploit digital affordances, especially algorithmic targeting and influencer-led storytelling—to bypass conventional regulatory monitoring (Indonesian Breastfeeding Mothers' Association, 2021; Mota-Castillo et al., 2023).

#### 5.5 Implications for policy, public health, and digital regulation

By synthesizing both sides of the communicative process, the study displays how formula milk branded content gains legitimacy through a combination of strategic vagueness, emotional resonance, and informational framing. Mothers translate messages as supportive and trustworthy, while managers tailor them within boundaries that prioritize compliance but still enable brand influence. This dual process highlights the serious need for clearer regulatory classifications of “branded content,” robust monitoring of digital platforms, and expanded administration mechanisms that recognize the sensitivities of existing BMS marketing.

Public health communication must also adapt, offering mothers accessible, evidence-based substitutes that can counteract the influential power of commercially engineered content. Reinforcing digital literacy, especially in recognizing soft promotional cues, is critical to preserving maternal independence and supporting breastfeeding initiatives aligned with SDGs 2, 3, and 5.

The findings carry important public health implications. The hybrid communicative form of formula milk branded content complicates traditional regulatory monitoring, as promotional intent is embedded within emotionally supportive and informational narratives. This suggests the need for strengthened digital enforcement of the WHO Code, clearer guidance on indirect promotional practices,

and enhanced maternal digital health literacy initiatives. Without adaptive governance mechanisms, subtle forms of commercial persuasion may continue to shape parental beliefs and feeding practices in ways that undermine breastfeeding promotion efforts.

## 6 Conclusion

This study assessed how formula milk branded content on Instagram is encoded by industry actors and decoded by mothers within Indonesia's increasingly complex digital and regulatory setting. Using a critical interpretive grounded theory approach, the analysis discovered that branded content functions as a hybrid communicative shape. Appearing to provide parental assistance while subtly encouraging commercial interests. Mothers engaged with the content as a source of nutritional knowledge, emotional reassurance, and parenting inspiration, often inferring these materials as supportive rather than marketing. Meanwhile, brand managers unveiled strategic rationales shaped by institutional expectancies, ethical constraints, and competitive pressures, showing how subtle promotional logics operate beneath the surface of “educational” or “relatable” messaging.

These findings highlight the layered dynamics of formula milk communication in digital spaces. Instagram has become a spot where emotional resonance, informational cues, and parental identity formation intersect with market objectives. As a result, the borders between authentic parenting support and commercial persuasion become increasingly blurred, complicating mutually regulatory inaccuracy and public health efforts. The study contributes new comprehension into the mechanisms through which branded content gains legitimacy among mothers and reveals how commercial actors navigate regulatory ambiguity. Often while believing they remain compliant with the WHO Code. Ultimately, the research establishes that formula milk marketing continues to shape parental beliefs and practices, even when presented in subtle or presumably supportive forms.

## 7 Limitations

This study is shaped by several methodological and contextual limitations inherent to qualitative, critically oriented grounded theory research. First, the focus group discussions involved a relatively small and purposively selected group of mothers, recruited through Instagram, which may limit the transferability of findings to broader populations of caregivers who do not actively engage with digital platforms. While the study sought depth rather than representativeness, it is important to acknowledge that the mothers who participated likely possess higher digital literacy and greater exposure to branded content than the general population. Second, the interviews with brand managers were constrained by time and resource limitations, resulting in only three industry voices contributing to the analysis. Although these interviews generated rich interpretive data, they cannot represent the full range of perspectives within Indonesia's infant formula marketing ecosystem. Third, the reliance on self-reported interpretations, both from mothers and managers, means that the findings reflect perceived intentions and meanings rather than observed behavioral outcomes.

As a critical interpretive grounded study, the analysis privileges meaning making and discourse rather than measurable effects and therefore cannot claim causal explanations. In addition, the study focused primarily on individual interpretive processes and did not explicitly examine the role of online parenting communities or peer-group influence in shaping mothers' responses to branded BMS content. Although focus group discussions enabled exploration of personal meaning-making, the broader dynamics of social network interaction such as comment exchanges, peer endorsement, or participation in parenting groups were not systematically analysed. Given existing evidence that online communities can shape infant feeding norms and attitudes, future research could examine how collective digital environments mediate the decoding and circulation of branded BMS messaging. Finally, because branded content on Instagram is dynamic and rapidly evolving, the interpretations captured reflect a specific moment in a continuously shifting digital environment.

## Data availability statement

The data are not publicly available due to ethical restrictions protecting participant privacy. The data that support the findings of this study are available on reasonable request from the corresponding author.

## Ethics statement

The study involving human participants was approved by the Research Ethics Committee of Universitas Padjadjaran. The study was conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

## Author contributions

AG: Data curation, Methodology, Formal analysis, Investigation, Conceptualization, Writing – review & editing, Writing – original

draft. SD: Formal analysis, Writing – review & editing, Conceptualization, Supervision. MH: Formal analysis, Writing – review & editing, Supervision, Methodology. DS: Writing – review & editing, Validation, Formal analysis, Methodology, Supervision.

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