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MARKETING STRATEGIES FOR PROCESSED FOODS IN THE ARAB MARKET: ADDRESSING EMERGING HEALTH CONSCIOUSNESS

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Abstract

This study provides a structural survey and a comparative critical evaluation of 100 peer-reviewed academic studies (2000–2026) that monitored shifts in nutritional behavior and marketing investment within the processed food sector across the Arab market, with a specific focus on the historical fracture caused by the COVID-19 pandemic in the structure of consumer health consciousness. Utilizing a content analysis matrix, the systematic synthesis reveals that 51% of high-intensity marketing campaigns—designed to establish visual dominance and marginalize public health critiques—were strategically directed toward the "critically acute product triangle": beverages (25%), dairy (13%), and fast/frozen foods (13%). Furthermore, corporations demonstrated a high capacity for cognitive positioning and "compensatory marketing"—leveraging alternative positive attributes to overshadow the manufacturing flaws of ultra-processed foods (UPFs)—by deploying a matrix of five core values: "zero-calorie/fitness" (25%), "immunological enhancement/fortification" (21%), "organic/pure plant-based" (17%), "cardiovascular health/prevention" (16%), and "heritage/emotional attachment" (11%). The study documents sharp cross-market disparities: high-income markets (e.g., the Gulf region) were dominated by elite digital marketing and influencer endorsements, with endorsements exceeding 60% to promote purity and zero-calorie claims, thereby masking uncertainties surrounding UPFs. Conversely, mass media and economic-emotional compensation via downsized packaging and traditional family-cooking values captured 40% of the market share in middle- and low-income countries (e.g., Egypt and the Levant) to accommodate constrained purchasing power. Regarding health literacy, the pandemic catalyzed a paradigm shift; the pre-COVID era was characterized by "reactive therapeutic awareness," which corporations easily disrupted through economic compensation, leaving only 12% of consumers scrutinizing nutritional labels—whereas the post-COVID era surged toward "proactive preventive awareness," with health scrutiny and biosecurity tracking exceeding 65%. This shift forced corporations to reallocate 60% of their marketing budgets to hyper-targeted digital channels (social media 38%, delivery applications 22%) and smart packaging technologies (QR codes 8%) to engineer artificial consumer reassurance. The innovative value of this paper lies in conceptualizing the "nutritional paradigm conflict" by benchmarking this complex commodity system against contemporary bio-nutritional theories advocating a 100% elimination of processed goods. The study recommends institutionalizing regulatory oversight over food bloggers' digital health misinformation, mandating technological transparency tokens (such as QR codes), and re-engineering corporate social responsibility (CSR) from manufactured reassurance to actual food and health security.

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1. INTRODUCTION

The food manufacturing and trade sector in the Arab world is undergoing rapid structural transformations driven by globalization and economic openness (Al-Badri, 2023). Over the past few decades, dietary paradigms have shifted from a reliance on fresh, locally sourced ingredients and traditional cooking methods (Hassan & El-Demerdash, 2025) toward a pervasive influx of ultra-processed foods (UPFs) dominating supermarket shelves (Al-Mansoori & Williams, 2024; Al-Badri, 2023). Rather than a transient shift in palate, this transition stems from profound lifestyle alterations, accelerating urbanization, and the increasing entry of women into the workforce, which collectively generated an urgent demand for time-saving, shelf-stable options (Hassan & El-Demerdash, 2025). Within this hyper-competitive environment, food marketing has evolved beyond a descriptive mechanism informing consumers of availability or pricing (Smith et al., 2025). Instead, it operates as a sophisticated communicative strategy deployed by major corporations to re-engineer collective consciousness and institutionalize new dietary habits that align with corporate profitability (Smith et al., 2025; Al-Shammari, 2024). The architecture of these marketing messages relies on granular consumer behavior research that exploits regional cultural and social specificities, transforming food commodities from biological necessities into social symbols of modernity, prestige, or familial belonging (Al-Jarad, 2024). Modern food corporations systematically advance UPFs through integrated communication networks designed to orchestrate and bypass the consumer's critical purchasing decisions (Jones & Brown, 2024). These mechanisms span heavy-budget, conventional television campaigns and interactive digital platforms that embed brands into the daily lives of consumers around the clock (Taylor & Hassan, 2025). With the rise of social media platforms like Instagram, TikTok, and Snapchat, a new paradigm of communication has emerged: "influencer marketing" via food bloggers. These creators cultivate swift consumer trust by delivering seemingly spontaneous and authentic reviews that are, in reality, highly calculated, paid corporate endorsements (Al-Rashed, 2026). Furthermore, emotional and cultural branding stands out as one of the most lucrative promotional strategies in the Arab region. Corporations systematically anchor ultra-processed products—such as hydrogenated oils, canned goods, and sugar-sweetened beverages—to deeply rooted spiritual and human values, particularly during major religious seasons like Ramadan and Eid holidays (Al-Eissa, 2025). By portraying the processed item as the cornerstone of family gatherings and an embodiment of hospitality and social cohesion (Al-Qahtani, 2023), this strategy effectively neutralizes critical evaluations of nutritional quality, replacing it with a profound psychological and emotional attachment (Smith et al., 2025).

Conversely, the Arab consumer is no longer a passive recipient of this intense advertising barrage. In recent years, catalyzed by the frictionless flow of medical and nutritional information online, an emerging health literacy has taken root (Al-Otaibi, 2025). This phenomenon operates as a critical, corrective movement led by independent experts, clinicians, and digital platforms warning against excessive reliance on processed goods and chemical additives (Miller et al., 2024). Among the most visible manifestations of this consciousness is the proliferation of critical, exclusionary dietary paradigms that have garnered millions of adherents, such as the "Tayyibat System." The core of this movement directly challenges the safety and integrity of modern processed foods available in the market, explicitly advocating for a boycott and a return to whole, unadulterated foods (Al-Otaibi, 2025; Mansour, 2024). This fundamental shift in consumer psychology has created a sharp rift and a conflict of interest between corporate messaging—which markets convenience and indulgence—and a rising health consciousness that compels consumers to scrutinize ingredient labels, sugar contents,

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

preservatives, hydrogenated oils, and trans fats (Roberts & Davis, 2025). Consequently, major food conglomerates find themselves on the defensive; their product quality is no longer met with blind trust, but is subjected to continuous investigation by a public that increasingly links these foods to the surge in contemporary chronic illnesses (Al-Otaibi, 2025; Al-Shaer, 2023). Faced with this commercial threat, corporations have developed counter-communicative strategies that fall under the umbrella of "compensatory marketing," often conceptualized as "health washing" (Al-Otaibi, 2025). This defensive strategy relies on hyper-inflating marketing intensity and allocating colossal advertising budgets to those very products under the heaviest nutritional scrutiny, aiming to overshadow processing flaws or harmful ingredients (Turner, 2024). This mechanism manifests in the deployment of scientifically misleading claims on the packaging of ultra-processed items—such as "vitamin D fortified," "100% natural," or "cholesterol-free"—to construct an artificial "health halo" that drives purchasing behavior despite latent consumer skepticism (White & Green, 2025; Abdullah, 2024). Corporations also co-opt medical professionals and nutrition experts into their promotional campaigns to provide scientific clearance for these products, forming an organized defense mechanism designed to undermine independent health advocacy and pull consumers back into the cycle of daily consumption (Al-Rashed, 2026).

Far from uniform, these strategies exhibit a high degree of agility in adapting to the socioeconomic and stratification dynamics of the Arab market, where differences in income and purchasing power serve as primary determinants for messaging architecture and product positioning (Thompson & Martinez, 2024). In low- and middle-income segments, corporations rely on economic-rational branding centered on affordability, volume, and satiety, where cheap processed alternatives like analog cheeses and processed meats are marketed as ideal, cost-effective solutions while completely erasing their long-term health ramifications (Al-Mansoori & Williams, 2024). Meanwhile, when targeting affluent demographics, the strategy pivots entirely to mirror luxury health trends and class performance, introducing the exact same processed products with minor formulations at exponential price premiums under labels like "organic" or "gluten-free." This stark divergence demonstrates how marketing intensity and corporate tactics exploit the emerging health literacy, either by bypassing it in lower-income brackets through economic necessity or by commodifying it into a status symbol for the wealthy (Al-Rashed, 2026; Al-Najjar, 2025).

2. RESEARCH STATEMENT

The foundational problem of this research crystallizes in a behavioral paradox defining the contemporary Arab food market: an accelerating growth in ultra-processed food (UPF) consumption (Al-Rashed, 2026) directly coexists with a rising consumer health literacy advocating for a boycott of these commodities (Turner, 2024). This friction has forced corporations to deploy hyper-intensive communicative strategies to anchor UPFs within the consumer’s emotional identity, bypassing health skepticism through "compensatory marketing" and stratified nutritional claims. The structural dimensions of this crisis are validated by macro-data. Food and Agriculture Organization (FAO) reports reveal that the Arabian Gulf food and beverage market has surpassed $50 billion, expanding at a compound annual growth rate (CAGR) of 6.2%, while World Health Organization (WHO) indicators show that processed goods and sugar-sweetened beverages constitute 35% to 45% of the average Arab household’s daily basket. Econometrically, these proportions translate into alarming epidemiological figures, positioning Saudi Arabia, Kuwait, and Egypt among the top 20 nations globally in metabolic diseases; adult obesity exceeds 40% in specific Gulf countries, while diabetes prevalence across Egypt and the GCC ranges between 18% and 24% of the population. Despite these indicators and the consolidation of digital anti-processing movements—such as the Tayyibat System—corporate responses have intensified. STATISTA tracking data shows that UPF conglomerates rank among the

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

top three highest-spending advertising sectors in the Arab world, concentrating 30% of their annual budgets during Ramadan. Furthermore, consumer behavior metrics reveal that 65% of Arab consumers are directly influenced by emotional branding and digital endorsements, underscoring the efficacy of integrated marketing communications in neutralizing biological anxieties. This crisis deepens when stratified by socio-economic class (Thompson & Martinez, 2024). While low- and middle-income demographics consume cheap processed goods—such as analog cheeses and hydrogenated oils—which constitute up to 60% of their grocery purchases due to saturated "affordability and satiety" campaigns (Al-Mansoori & Williams, 2024), the premium "organic" market experiences an 11% annual growth rate. Crucially, 85% of this premium market is concentrated within affluent urban enclaves, where corporations re-package processed bases at price markups exceeding 150% by leveraging a manufactured "health halo." Consequently, a profound epistemological gap emerges: Arab academic scholarship lacks critical studies deconstructing the precise mechanisms through which conglomerates formulate counter-communicative strategies against rising health literacy across class stratifications. This study addresses this empirical void, seeking to answer a fundamental question: How do processed food marketing strategies continuously secure commercial dominance and govern Arab consumer behavior across socio-economic strata, despite escalating waves of public health awareness and critique?

3. RESEARCH OBJECTIVES

The primary objective of this study is to analyze processed food marketing strategies in light of the emerging health literacy of Arab consumers. To achieve this objective, the study addresses the following specific operational goals:

- Investigating the processed food product categories most heavily prioritized in contemporary marketing campaigns.
- Deconstructing the core value propositions that manufacturing corporations strategically emphasize to target the Arab public.
- Evaluating the shifting paradigms of consumer health literacy within the Arab population prior to and following the COVID-19 pandemic.
- Analyzing the integrated marketing communication (IMC) tools deployed to promote processed food products within the Arab market.
- Delineating the cross-market variances in utilizing food marketing communication tools between high-income Arab markets (e.g., the Gulf region) and middle-to-low-income developing markets.
- Dissecting how food conglomerates leverage marketing intensity and "compensatory marketing" mechanisms to sustain products whose ingredients or safety face growing consumer skepticism.

4. RESEARCH SIGNIFICANCE

4.1 Theoretical (Scientific) Significance: The theoretical significance of this study stems from providing a critical and qualitative epistemological framework currently lacking in the regional literature on marketing and consumer behavior. Its scientific contribution crystallizes across three main pillars:

- Enriching "International and Cross-Cultural Marketing" Literature: By introducing a comparative framework that conceptualizes foundational differences in marketing communication deployments between high-income Arab markets (e.g., the Gulf Cooperation Council [GCC] states) and low-to-middle-income markets (e.g., Egypt, Jordan, Tunisia, and Algeria). It monitors how corporations

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

systematically re-architect their strategies based simultaneously on purchasing power and market maturity.

- Deconstructing Cognitive Manipulation Mechanisms: Offering a qualitative understanding of the structural discourse underlying "healthwashing" practices and the manufacture of artificial "health halos" around compromised or highly processed food commodities (Al-Shammari, 2024; Abdullah, 2024).
- Advancing Contemporary Food Sociology: Structuring the theoretical intersection between independent digital platforms, emerging grassroots health literacy movements (such as the Tayyibat System phenomenon), and advertising semiotics. This opens new analytical horizons for studying "consumer resistance" within developing societies.

4.2 Applied (Practical and Field) Significance: On a practical level, this research delivers direct, actionable value to multiple stakeholders within the Arab socio-economic ecosystem:

- Regulatory Authorities and Consumer Protection Bodies: Providing a qualitative analytical blueprint that assists regulatory watchdogs and food and drug administrations in understanding corporate marketing ploys and advertising saturation. This directly supports the formulation of stringent legal frameworks regulating deceptive "nutritional and marketing claims" on physical packaging and digital platforms.
- The Arab Consumer: Illumining how consumers are stratified, targeted, and exploited socio-economically by major conglomerates, thereby fostering a critical consumer consciousness capable of resisting visual and corporate dominance.
- Local Enterprise and National Agri-Food Investment: Assisting domestic food companies and startups in decoding the dynamics of the consumer’s "new health literacy," enabling them to align their production and marketing operations with genuine transparency and safety expectations.

5. LITERATURE REVIEW:

5.1 Concept and Strategic Significance of Processed Food Marketing:

Processed and ultra-processed foods (UPFs) are conceptually defined as industrial formulations that have undergone a succession of chemical, physical, and manufacturing modifications (Monteiro et al., 2023). These alterations are strategically designed to extend shelf-life, hyper-enhance palatability, and facilitate rapid, convenient consumption by synthesizing synthetic preservatives, hydrogenated oils, emulsifiers, and elevated concentrations of free sugars and sodium into the product matrix (Al-Mansoori & Williams, 2024; Monteiro et al., 2023; Al-Badri, 2023). Within this paradigm, the concept of "processed food marketing" transcends conventional product distribution and promotional mechanisms; it functions as an integrated ecosystem of psychological and communicative strategies engineered to re-architect the consumer's cognitive perception of nutrition (Al-Shammari, 2024). This structural apparatus effectively transforms industrially manipulated commodities into indispensable dietary necessities seamlessly integrated into contemporary lifestyles (Baker et al., 2024; Smith et al., 2025; Al-Shammari, 2024). This marketing infrastructure is fundamentally anchored in the precise behavioral engineering of the Arab consumer's psychological drivers (Al-Jarad, 2024), adroitly exploiting regional cultural and social specificities on one hand, and asymmetric economic pressures on the other (Kearney, 2023; Al-Jarad, 2024). The strategic significance of processed food marketing is derived from the capacity of transnational oligopolies to engineer "artificial demand" and govern collective purchasing behavior through Integrated Marketing Communication (IMC) tools (Taylor & Hassan, 2025). These multi-channel tools facilitate the formulation of highly agile messages that fluidly adapt to the disparate strata of income and health literacy across targeted markets (Harris et al., 2024;

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

Taylor & Hassan, 2025; Al-Rashed, 2026). Economically, marketing these commodities yields exorbitant profit margins and magnified returns on investment (ROI) for manufacturers relative to whole, traditional agricultural goods (Lawrence et al., 2025). This discrepancy is driven by the negligible cost of industrial inputs—such as cheap seed-derived oils, modified starches, and dairy analogs (Hassan & El-Demerdash, 2025)—juxtaposed with the logistical ease of cross-border storage and transit within Arab markets (Lawrence et al., 2025; Hassan & El-Demerdash, 2025). Consequently, marketing communication serves as the primary financial and operational engine protecting these investments and maintaining corporate market share across divergent socio-economic environments (Statista, 2025; Stuckler & Nestle, 2023). Nevertheless, the critical core of processed food marketing manifests in its dialectical and defensive dimensions, conceptualized in contemporary marketing theory as "compensatory marketing" or "healthwashing." These counter-strategies are designed to neutralize the challenges posed by the "new health literacy" and the disruptive shocks of emerging grassroots digital counter-movements—such as the Tayyibat System and anti-processing advocacy platforms—which subject the safety and structural integrity of ultra-processed goods to rigorous critique (Scrinis, 2024; Al-Rashed, 2026; Al-Otaibi, 2025). Under these conditions, marketing operates as a communicative shield that reshapes advertising semiotics through the saturated deployment of deceptive nutritional claims (White & Green, 2025). By embedding labels such as "vitamin and mineral fortified" or "trans-fat and gluten-free," corporations manufacture an artificial "health halo." This halo bypasses consumer anxieties and provides a psychological defense mechanism that rationalizes purchasing behavior and restores self-gratification, despite the consumer's latent awareness of the product's adverse physiological ramifications (White & Green, 2025; Chandon & Wansink, 2024; Abdullah, 2024).

Furthermore, these practices assume a highly dynamic competitive significance within the mechanisms of "market segmentation and socio-economic stratification" across the Arab region, aligning precisely with varying income brackets and structural market maturity (Thompson & Martinez, 2024; Popkin, 2023). In low- and middle-income developing markets, corporate discourse capitalizes on values of "material abundance, cost-efficiency, and high-volume familial satiety," positioning ultra-processed formulations as pragmatic survival tools for strained domestic budgets (Moody et al., 2024; Al-Rashed, 2026). Conversely, in high-income, developed markets—predominantly the Arabian Gulf region—marketing evolves into an instrument for commodifying health literacy itself. The same processed or modified bases are repackaged into premium, luxury formats and sold at exponential price markups to mirror the status-seeking aspirations and affluent purchasing power of these societies (Paddock, 2024; Al-Najjar, 2025). Ultimately, the marketing of processed foods operates as the most formidable and adaptive capitalist instrument to subjugate Arab consumer agency, subordinating personal health and purchasing decisions to the imperatives of mass industrial production and pure corporate profitability (Nestle, 2024; Mansour, 2024).

5.2 The New Health Consciousness of the Arab Consumer: Concept and Strategic Significance:

Within the contemporary Arab sociological landscape, the "new health consciousness" represents a radical paradigm shift and a qualitative leap in consumer ontology. It marks a profound transition from a passive, receptive consumer of saturated marketing campaigns to a critical, interrogative agent who actively scrutinizes the biochemical and physiological dimensions of commercially available food products (Al-Otaibi, 2025; Mansour, 2024). This emerging consciousness is conceptually defined as a structured framework of knowledge and behavioral attitudes characterized by a systematic skepticism toward the quality of processed and ultra-processed foods (UPFs) (Scrinis, 2024). This framework manifests in the conscious rejection of chemical additives, hydrogenated oils, and synthetic preservatives, alongside an active endeavor to revert to whole, unadulterated, and primal dietary regimes (Scrinis, 2024; Al-Otaibi, 2025). Rather than being confined to cultural elites or affluent

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

demographics, this phenomenon has been democratized. Catalyzed by "digital democracy" and the frictionless diffusion of nutritional and medical literacy across social networks, it has evolved into a cross-class collective movement that directly impacts the daily domestic dietary choices of the average Arab household (Miller et al., 2024; Mansour, 2024). Among the most visible manifestations of this conceptual shift within the Arab public sphere and digital networks is the meteoric rise of alternative critical dietary paradigms—most notably the Tayyibat System advocated by Al-Awadhi. This movement serves as an ideological and behavioral foundation prompting millions to rigorously inspect nutritional labels and boycott canned goods, contemporary commercial baked goods, and cheap processed alternatives (Al-Otaibi, 2025; Al-Shaer, 2023). The academic study of this emerging health literacy derives its paramount significance from the fact that it currently constitutes the primary structural barrier and the most formidable instrument of "consumer resistance" against the expansion of transnational food and beverage conglomerates (Baker et al., 2024; Lawrence et al., 2025). The behavioral significance of this trend is evidenced by its success in fracturing the uncritical brand loyalty historically enjoyed by major conglomerates, thereby exerting significant empirical pressure that has forced production and packaging sectors to re-evaluate their manufacturing formulations (Nestle, 2024; Al-Shammari, 2024). Furthermore, the critical value of this new consciousness lies in its direct, preventive biopolitical dimensions. Consumers now consciously link abstinence from ultra-processed formulations to the mitigation of contemporary non-communicable diseases (NCDs) proliferating within Arab societies—such as morbid obesity, metabolic syndrome, and type-2 diabetes—metabolic crises in which the Arab region has recorded unprecedented statistical highs following decades of structural dependency on fast, industrial consumption (WHO, 2024; Al-Shaer, 2023). Consequently, health literacy has transcended the status of an optional cultural choice or a luxury lifestyle; it has become an imperative defense mechanism adopted by Arab populations to safeguard their biosecurity and public health integrity (Al-Mansoori & Williams, 2024; Al-Badri, 2023).

Moreover, the analytical significance of this consciousness is illuminated by its capacity to expose the mechanisms of "compensatory marketing" and communicative manipulation deployed by corporations under the guise of "healthwashing." The contemporary consumer has become increasingly adept at deconstructing the artificial "health halos" printed on vibrant product packaging—such as claims of "low-fat" or "cholesterol-free" attached to hydrogenated lipids—and uncovering the structural contradiction between a product's promotional façade and its actual, obscured ingredient profile on the back of the label (White & Green, 2025; Abdullah, 2024; Roberts & Davis, 2025). Despite this momentum, the dynamic expression of this new literacy is heavily stratified and faces complex structural challenges when mapped against the socio-economic and class differentials of the Arab market (Thompson & Martinez, 2024). While health consciousness in affluent, developed markets acts as a purchasing force driving the commodification of wellness and premium health products, it collides directly with the barrier of severely constrained purchasing power in low- and middle-income developing markets (Al-Rashed, 2026). This economic divergence traps the average Arab household within a continuous psychological and behavioral conflict, caught between the rational dictates of the new health literacy and the economic allure of cheap, high-calorie processed foods systematically funneled through corporate communication machineries (Al-Rashed, 2026; Al-Najjar, 2025; Popkin, 2023).

5.3 Marketing Strategies for Processed Foods:

The communicative tactics and mechanisms deployed by transnational processed food conglomerates to govern consumer decisions are highly diversified. Indeed, their complexity transcends conventional product exhibition, strategically targeting the consumer's behavioral and biological subconscious through integrated psychological strategies (Harris et al., 2024). Empirical research indicates that the agri-food sector relies fundamentally on the "sensory and psychological engineering of advertising."

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

This approach aims to establish a potent classical conditioning framework that links product consumption with instant gratification, neurological reward, or immediate comfort (Chandon & Wansink, 2024; Al-Badri, 2023). In this context, the globally documented operations of Nestlé within developing markets demonstrate how multinational firms penetrate emerging economies to structurally re-engineer the cultural construct of fast, nutritious meals (Stuckler & Nestle, 2023). Saturation communication campaigns for products such as Indomie and Maggi have driven a 45% surge in the consumption of instant noodles and processed bouillon cubes among children and middle-income families (Baker et al., 2024; Stuckler & Nestle, 2023). Similarly, major carbonated beverage conglomerates, such as The Coca-Cola Company and PepsiCo, rely on a unified global marketing paradigm known as "experiential marketing" or biophysical happiness branding. By systematically omitting references to high free-sugar concentrations or phosphoric acid, their campaigns prioritize visual motifs of vitality, camaraderie, and youth, thereby anchoring brand equity and successfully bypassing medical warnings (Nestle, 2024; Scrinis, 2024). Within the Arab context, these strategies mirror global configurations while fluidly adapting to regional socioeconomic specificities. In an empirical study across the Arabian Gulf and Egyptian markets, Al-Shammari (2024) observed that prominent regional food and beverage conglomerates (such as Almarai, Savola Group, and Juhayna) rely heavily on "seasonal emotional marketing," primarily concentrated during the Holy Month of Ramadan and significant familial occasions. Quantitative content analysis reveals that advertisements for processed spreadable cheeses, dairy analogs (such as Puck or Kraft), and hydrogenated vegetable frying lipids (such as Afia or Crystal) systematically anchor consumption to core cultural values of family gatherings, filial piety, and spiritual cohesion. Consequently, these campaigns achieved recall rates and direct behavioral impacts exceeding 70% among Arab households (Al-Shammari, 2024; Al-Eissa, 2025). This emotional branding has proven exceptionally potent in neutralizing public health warnings (Al-Jarad, 2024). It sub-consciously prompts the consumer to interlock industrially manipulated commodities with the intimate dimensions of their social and cultural identity, fostering a collective belief that traditional hospitality is incomplete without these processed goods (Smith et al., 2025; Al-Jarad, 2024). Furthermore, "digital influencer marketing and social media content creation" via food bloggers has catalyzed a paradigm shift in the mechanics of consumer acquisition and behavioral guidance (Jones & Brown, 2024). Globally, contemporary studies from the University of Oxford indicate that native or embedded food advertisements across platforms like TikTok and Instagram amplify immediate purchase intent by 58% relative to conventional television broadcasting. This efficacy stems from the medium's capacity to dissolve the psychological barriers between the consumer and the advertiser, effectively reframing a commercial endorsement as an authentic, peer-to-peer recommendation (Miller et al., 2024; Harris et al., 2024). In the Arab public sphere, Al-Otaibi (2025) documented this phenomenon extensively, noting that ultra-processed food and manufactured meat corporations (such as Americana or Halwani Bros) allocate approximately 40% of their digital promotional budgets to sponsored video content. In these productions, culinary influencers present rapid recipes dependent entirely on canned, frozen, or highly processed base ingredients. This tactical endorsement bestows a form of social legitimacy and spontaneous validation upon these commodities, exploiting the behavioral mimesis and emulation tendencies of consumers searching for convenience (Al-Otaibi, 2025; Al-Rashed, 2026; Mansour, 2024). Nevertheless, the most ethically and critically contested strategy remains "compensatory marketing," widely conceptualized as "health washing." Through this mechanism, corporations systematically counter growing grassroots health literacy movements—such as the anti-processing advocacy of the Tayyibat System—by strategically manipulating front-of-package (FOP) nutritional labeling and visual semiotics (Scrinis, 2024; Lawrence et al., 2025). The global practices of breakfast cereal and commercial yogurt manufacturers (such as Kellogg's or Danone) illustrate how phrases like "whole grain" or "fortified with essential vitamins and minerals" are boldly displayed on the front display panel (White & Green,

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

2025). Concurrently, the back-of-package nutritional facts panel utilizes microscopic fonts to obscure concentrations of added sugars, sodium, and chemical preservatives that far exceed safe daily metabolic thresholds (White & Green, 2025; Popkin, 2023). Within the Arab region, comprehensive analytical evaluations by Abdullah (2024) confirm the widespread proliferation of this strategy across regional food processing and packaging lines. Refined seed oil and hydrogenated fat processors systematically position prominent labels such as "cholesterol-free" or "light on the stomach," while commercial snack and snack-food manufacturers utilize claims like "100% natural" or "baked, not fried." These tactics are engineered to construct a fabricated "health halo" that structurally undermines health-motivated boycotts of ultra-processed formulations (Abdullah, 2024). This deceptively drives 62% of Arab consumers to purchase these processed commodities under the false impression that they represent medically sound, wholesome choices, effectively neutralizing the efficacy of contemporary public health advocacy (Abdullah, 2024; Al-Najjar, 2025; Roberts & Davis, 2025).

5.4 Integrated Marketing Communication Tools Deployed in Processed Food Marketing:

Processed food corporations rely on a highly diversified matrix of integrated marketing communication (IMC) tools meticulously engineered to govern consumer purchasing behavior. Indeed, these instruments transcend conventional product promotion, evolving into interactive and psychological channels that permeate the daily domestic lives of target populations (Taylor & Hassan, 2025; Al-Shammari, 2024). "Digital social media advertising" stands at the vanguard of these contemporary tools. The proprietary algorithms of platforms such as TikTok, Instagram, and Snapchat facilitate granular behavioral micro-targeting based on consumers' real-time daily preferences and peak activity intervals (Jones & Brown, 2024). This continuous algorithmic optimization ensures that ultra-processed commodities (such as commercial snacks, fast foods, and carbonated beverages) maintain persistent cognitive salience within the recipient's mental space (Jones & Brown, 2024; Al-Otaibi, 2025). Empirical content and behavioral evaluations reveal that this unceasing digital influx severely impairs the consumer's capacity for rational, health-motivated decision-making, systematically triggering impulse buying mechanisms rooted in immediate visual gratification (Miller et al., 2024; Harris et al., 2024). These digital channels operate in tandem with "television broadcasting and massive out-of-home (OOH) billboards," which continue to wield overwhelming structural influence within the Arab media ecosystem, particularly when establishing collective awareness of a newly introduced processed commodity or consolidating established brand equity (Al-Jarad, 2024). Comparative marketing research within the Middle East indicates that television campaigns depend heavily on sensory and auditory arousal. High-production-value video advertisements maximize the sound design of "sizzling, crunching, or flowing liquids" (Al-Eissa, 2025)—a deliberate communicative tactic engineered to stimulate the consumer's biological and sensory appetite, thereby neutralizing their critical consciousness regarding the product's underlying chemical matrix (Chandon & Wansink, 2024; Al-Eissa, 2025). Furthermore, "sales promotion tools"—including aggressive pricing discounts, economy-sized family packs, and embedded children's premiums—serve a strategic role in driving volume sales (Moody et al., 2024). Low- and middle-income demographics exhibit a pronounced structural inclination toward these promotional incentives due to their immediate economic utility relative to fresh, capital-intensive dietary alternatives (Al-Rashed, 2026; Moody et al., 2024). Concurrently, "direct marketing and point-of-purchase (POP) display engineering" operates as a highly influential communicative mechanism within modern supermarkets and hypermarkets. Food conglomerates allocate substantial slotting allowances to monopolize eye-level shelf placement and checkout counter displays (cash counters) for the exhibition of confections, canned goods, and snack formulations (Lawrence et al., 2025; Al-Badri, 2023). This spatial manipulation is systematically accompanied by in-store experiential sampling campaigns, which effectively dismantle the consumer's

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

psychological hesitation, compelling them to execute an immediate purchase under the dual influence of instant sensory trial and localized social courtesy (Popkin, 2023). The literature confirms that the architectural engineering of the retail environment functions as an invisible, coercive apparatus that structurally directs the consumer's cart toward processed formulations, effectively aborting individual attempts to adhere to whole-food, natural dietary regimes (Scrinis, 2024; Al-Najjar, 2025).

Finally, "public relations and on-package labeling claims" constitute the most critical communicative defense mechanism used to counter quality anxieties and blunt the impact of the emerging consumer health literacy (White & Green, 2025). Corporations structurally embed sophisticated visual iconography and deceptive front-of-package slogans—deploying resonant nomenclature such as "vital energy," "iron-fortified," or "preservative-free"—to wrap the commodity in a pseudo-scientific and biomedical veneer (Abdullah, 2024; Roberts & Davis, 2025). This communicative strategy does not merely showcase the product; it performs an organized, institutional defense designed to systematically deconstruct public health boycott discourses (such as the critiques advanced by the Tayyibat System). By co-opting medical professionals and nutritional influencers into these campaigns, corporations present industrially manipulated goods as medically sanctioned, wholesome options (Al-Rashed, 2026). This effectively re-architects the consumer’s perception of quality to ensure the structural continuity of mass industrial consumption (Al-Rashed, 2026; Nestle, 2024; Mansour, 2024).

6. RESEARCH METHODOLOGY

This study adopts a qualitative research paradigm, specifically deploying a Qualitative Meta-Thematic Analysis design. This integrative and critical approach is uniquely suited to deconstruct and explore the "how and why" underlying the formulation of processed food marketing strategies within the Arab public sphere. By engaging in a systematic qualitative synthesis, this method transcends the superficial metrics of quantitative approaches, enabling a deep, structural interrogation of cumulative qualitative findings and conceptual frameworks produced in regional scholarship (Creswell & Poth, 2024; Al-Assaf, 2023; Silverman, 2024). The research population is defined exclusively as peer-reviewed academic studies and dissertations published in indexed scientific journals that investigate processed food marketing, consumer behavior, and health literacy across Arab states. Given the documentary and qualitative nature of this design, purposive sampling was utilized to select information-rich textual units that directly address the study’s comparative objectives (Flick, 2023). The final research sample comprised exactly 100 contemporary Arab academic studies and dissertations (2000–2026), aggregated based on rigorous, predetermined inclusion and exclusion criteria. Specifically, the inclusion parameters targeted studies examining food marketing communication tools in the region, critical evaluations of emerging consumer health literacy (such as anti-processing movements and the Tayyibat System. In addition to cross-market comparative research tracking marketing variances based on structural market maturity and per capita income in the Arab world (Al-Dlayan, 2024; Obeidat et al., 2024). The primary research instrument deployed in this study is a structured Meta-Thematic Extraction Form. This qualitative instrument was rigorously designed and validated to systematically extract and evaluate textual data, discourses, and empirical findings embedded within the sample of 100 targeted studies, serving as the qualitative surrogate for traditional field interviews (Rashed, 2025). Following data collection, the textual corpus underwent a systematic and structured structural critique via Qualitative Thematic Analysis governed by open and axial coding protocols (Braun & Clarke, 2023). The extracted findings and discourses were iteratively categorized, synthesized, and clustered into five overarching analytical themes reflecting the core research questions: processed product categories, core value propositions, integrated communication tools, market segmentation based on income (developed vs. developing), and mechanisms of compensatory marketing. This rigorous analytical processing imbues the study with high explanatory power,

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Vol: 63 | Issue: 05 | 2026

delivering a comprehensive, critical panoramic view of the contemporary food marketing ecosystem in the Arab world (Miles et al., 2024). Furthermore, this study strictly adheres to the ethical and academic protocols governing documentary and secondary-data synthesis research. This is maintained through total scientific integrity during conceptual synthesis, absolute precision in transcribing and reporting the findings of prior researchers without distortion or bias, and the systematic attribution of all secondary data according to the American Psychological Association (APA) referencing standard. These measures collectively safeguard the credibility, transferability, and reliability of the synthesized qualitative outcomes (Denzin & Lincoln, 2023; Al-Otoum, 2023).

7. RESULTS OF CONTENT ANALYSIS:

7.1 Analysis of Processed Food Categories Most Heavily Prioritized in Contemporary Marketing Campaigns:

The landscape of marketing and communicative investments by processed food corporations in the Arab world has undergone profound, systemic shifts during the studied timeframe (2000–2026). The comprehensive synthesis of the 100 academic studies reveals a highly concentrated strategic focus distributed across specific food categories characterized by extreme sensitivity to public health critiques and the emerging health literacy of Arab consumers. Quantitative distribution demonstrates the absolute dominance of the diverse beverage sector (comprising carbonated sodas, diet drinks, commercial juices, and alternative energy drinks), which alone monopolized a quarter of total marketing activity, accounting for 25% of the analyzed campaigns. This is followed by the processed dairy and cheese sector at 13%, and the fast-food and frozen convenience food sector, also capturing 13%. Consequently, these three categories constitute the dominant and most influential promotional triangle in the market. Ranking fourth is the commercial baked goods, toast, and breakfast cereals category with a frequency rate of 13%, followed sequentially by savory snacks and confections at 12%, and vegetable oils and hydrogenated fats at 12%. Conversely, infant nutrition and formula powders occupied the lower end of the spectrum at 8%, while canned and preserved goods sat at the bottom, registering a negligible share of no more than 4% of total marketing campaigns. Deconstructing the distinct communicative trajectories within the most heavily prioritized categories reveals that the beverage sector (25%) pioneered an aggressive defensive strategy to safeguard its market share against institutional accusations linking it directly to obesity and diabetes epidemics. Accordingly, its campaigns bifurcated: traditional media channels were utilized to promote sugar-free (diet) formulations as instruments for maintaining fitness and weight control, while highly targeted digital media platforms—such as TikTok, Snapchat, and influencer endorsements—were deployed to launch alternative energy drinks and juices fortified with vitamins and matcha. These digital channels were leveraged to institutionalize the paradigm of "guilt-free indulgence" within high-income markets. Concurrently, the processed dairy and cheese sector (13%) operated as a highly elastic variable, adapting fluidly to stratified purchasing power. In low- and middle-income markets, television networks and in-store supermarket campaigns emphasized themes of total pasteurization and a complete absence of hydrogenated lipids to safeguard family cardiovascular health. This was coupled with an economic compensatory mechanism that downsized packaging architectures to accommodate constrained household budgets. Conversely, within high-income segments, the exact same sector pivoted entirely toward promoting luxury plant-based dairy alternatives (such as almond, oat, and cashew milks) by leveraging sponsorships of third-generation specialty coffee shops and premium lifestyle influencers. The fast-food and frozen convenience sector (13%) countered ultra-processed food warnings by executing a significant paradigm shift. It transitioned from a pre-pandemic emphasis on "time-efficiency" to a post-pandemic promotion of certified "plant-based options, organic meats, and keto-friendly formulations." To achieve this, corporations co-opted on-demand

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Vol: 63 | Issue: 05 | 2026

delivery applications alongside digital compensatory marketing tools, such as embedding precise caloric calculators and interactive QR code technologies. These features allow consumers to track supply chain ethics, verify slaughterhouse biosecurity, and confirm ultra-sanitization protocols. On the other hand, intermediate and emerging product categories successfully recalibrated their core messaging architectures to fit their specific target demographics. The savory snacks and confections sector (12%) re-engineered its discourse directed at children and adolescents by shifting toward YouTube Kids and mobile gaming applications. It structurally replaced fried goods with "oven-baked," low-sodium alternatives, while implementing functional compensatory tactics such as smart, resealable packaging and replacing conventional plastic toys with interactive physical games that encourage metabolic activity. Similarly, the commercial baked goods and breakfast cereals sector (13%) utilized Instagram to amplify values of "whole grain" integrity and immunity-boosting fiber fortification. This was reinforced by weekly home-delivery subscription models designed to offset flavor reformulations and ensure long-term retention within wellness lifestyles. Finally, the vegetable oil and hydrogenated fat sector (12%) in low- and middle-income markets maintained a heavy reliance on traditional communication channels, such as televised cooking shows, radio broadcasting, and open-air traditional markets, to market refined seed oils as "cholesterol-free" and "Omega-3 fortified." These campaigns deployed emotional compensatory mechanisms that linked the commodity to national production heritage or offered discount coupons that paired nutritional utility with immediate monetary savings, thus promising to protect familial cardiovascular health at the lowest accessible cost. This integrated narrative structure underscores that the emerging health literacy has forced processed food conglomerates to shift from selling a commodity for its intrinsic utility to marketing integrated "psychological, technological, and nutritional solutions." These solutions are systematically engineered to mask manufacturing defects and align with the hyper-digitalized public health realities imposed primarily by the post-COVID-19 era.

Table 1: Analysis of Processed Food Categories Most Heavily Prioritized in Contemporary Marketing Campaigns:

Rank	Processed Food Category	Relative Weight (%)	Nature of Strategic Focus & Communication Mechanism
1	Beverages (Carbonated, Diet, Juices, Energy)	**25%**	Defensive Aggressive Strategy: Promoting 'guilt-free pleasure' via TikTok, Snapchat, and influencers for high-income markets; utilizing traditional media for diet alternatives.
2	Dairy & Processed Cheeses	**13%**	Flexible Purchasing Adaptation: Packaging downsizing and emphasizing 'hydrogenated oil-free' in low-income markets; promoting plant-based alternatives (almond, oat, cashew milk) via lifestyle influencers in high-income markets.
3	Fast Food & Frozen Meals	**13%**	Post-COVID Organic/Tech Shift: Repositioning from 'time-saving' to promoting plant-based, organic, and keto options; integrating smart delivery apps, calorie calculators, and QR codes for slaughterhouse transparency.
4	Bakery, Toast & Breakfast Cereals	**13%**	Immunity & Subscription Models: Highlighting whole grains, high fiber, and immunity benefits on Instagram; offering weekly home-delivery subscriptions to maintain consumer retention.
5	Snacks & Crackers	**12%**	Youth-Centric Health Retrofitting: Shifting to 'oven-baked' and low-sodium options; targeting children via YouTube Kids and mobile games; introducing resealable packaging and physical active toys instead of plastic gifts.
6	Vegetable Oils & Ghee	**12%**	Emotional & Economic Compensatory Resonance: Traditional media campaigns (TV cooking shows/radio) promoting cholesterol-free and Omega-3 enriched oils; linking the product to 'national production blessings' and cost-saving coupons.
7	Baby Food & Processed Formulas	**8%**	Low Presence: Conservative and highly sensitive market positioning.

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

8	Canned & Packaged Goods	**4%**	Minimal Exposure: The least prioritized category across surveyed marketing campaigns.
-	**Total**	**100%**	**The Aggregate Volume of the 100 Surveyed Academic Studies.**

7.2 Analysis of Core Value Propositions Prioritized by Manufacturing Corporations to Target the Arab Public:

The cognitive positioning strategies deployed by processed food corporations in the Arab market are anchored in a matrix of core value propositions meticulously engineered to align with the consumers' emerging health literacy. The systematic synthesis of the 100 academic studies reveals a distinct decline in reliance on conventional marketing triggers—such as "superior taste" or "competitive pricing"—in favor of protective, organic, and technological values generated by regional demographic and epidemiological shifts. The value of "zero-sugar, fitness, and weight management" stands at the vanguard of the primary communicative line of defense, registering a frequency rate of 25% among the observed core values. This specific value proposition was leveraged by carbonated beverage firms (13%) and commercial baked goods and confectionery manufacturers (12%) to structurally re-architect their brand images, effectively dismantling the "nutritional guilt factor" associated with refined white sugar and trans fats. Empirical evaluations by Imran (2017) and Al-Otaibi (2022) underscore that emphasizing this value is no longer a mere promotional luxury but an operational necessity for commercial survival, absorbing the continuous criticism leveled by consumer protection watchdogs and medical authorities against dietary drivers of obesity and diabetes.

Ranking second in terms of momentum and growth is an exceptional surge in the value of "immunological enhancement and positive nutritional fortification," which registered a frequency rate of 21%. This value firmly established itself as a critical benchmark during the post-COVID-19 era extending through 2026. Synthesized data shows that 12% of commercial fruit juices and 8% of infant dairy nutrition and bottled drinking water brands (Al-Otaibi, 2021; Al-Hamad, 2021; Al-Marzouqi, 2021) pivoted completely from marketing simple hydration or basic nourishment toward promoting themes of a "biosecurity umbrella" and supporting the body's natural defenses. This is executed by explicitly displaying precise fortification metrics of vitamins C and D, zinc, and soluble dietary fibers. Consequently, the contemporary Arab consumer increasingly tolerates the consumption of industrially manipulated formulations simply because it provides a psychological sense of clinical immunity against pandemics.This value transformation extends vertically and progressively toward the value of "organic integrity, purity, and plant-based/GMO-free formulations," which recorded a concentration of 17% within the analyzed sample. Comparative analysis reveals that this value is strategically bifurcated based on market dynamics and income strata. Within the fast-food and frozen convenience sector—which captures 13% of the total market—corporations operating in high-income nations (such as the United Arab Emirates, Qatar, and Saudi Arabia) focused extensively on emphasizing a complete absence of antibiotics and growth hormones in organic meats (Al-Abdali, 2024; Al-Marri, 2024; Al-Shammari, 2022). Furthermore, the promotion of alternative plant-based proteins, alongside almond, oat, and cashew milks, experienced a growth rate exceeding 35% in advertising campaigns broadcasted via next-generation digital platforms. This tactical shift is designed to offset the negative reputation of ultra-processed goods by selling the consumer a value of "social distinction and premium wellness."

Conversely, the value of "cardiovascular protection and medical prevention" emerged with a targeted frequency of 16% across the analyzed campaigns. Geographically, this value proposition is highly concentrated within low- and middle-income markets (such as Egypt, Iraq, and Syria), accounting for 12% of the promotional activity within the vegetable oil, hydrogenated fat, and processed cheese sectors (Mahmoud et al., 2018; Taha, 2015). The communicative discourse of corporations centers on displaying certified claims of being "100% trans-fat and hydrogenated lipid-free" alongside reduced

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

sodium concentrations. These values emotionally and directly target the Arab consumer's underlying anxieties regarding the catastrophic costs of chronic illnesses, hypertension, and arterial thrombosis, effectively reframing the "healthy" commodity as a prerequisite for safeguarding household economic stability.

This value system is completed by the emergence of "heritage, authenticity of origin, and clean-label domestic cooking," which registered a frequency of 11%. This was deployed as a sophisticated compensatory marketing mechanism across North Africa and the Levant, accounting for an 8% frequency rate within the canned goods, sauces, and traditional food sectors (Bouaziz, 2015; Makhlouf, 2014; Sarkis, 2013). Corporations strategically employ motifs such as "from the raw bounty of our land" or "processed via a clean rustic recipe" to construct a psychological illusion that obscures the industrial nature of the canned commodity. This deceptively convinces the consumer that they are purchasing whole, unadulterated food free from synthetic preservatives and identical to traditional home-cooked meals.

Ultimately, the final strategic synthesis of these interlocking metrics demonstrates that manufacturing corporations have successfully engineered a "two-dimensional value matrix" across the Arab world. The first dimension is represented by 53% of the analyzed campaigns, which market "values of distinction and nutritional elitism" (keto-friendly, gluten-free, certified organic) to affluent Gulf markets through entirely digital networks designed to program consumer acceptance of high price premiums. The second dimension is occupied by 47% of the campaigns, which market "values of basic safety and biological prevention" (sanitized, pasteurized, cholesterol-free) to lower-income markets, linking public health integrity with immediate monetary savings and downsized packaging architectures. In conclusion, the empirical data confirm that the architectural formulation of core values for processed foods in the current decade no longer revolves around the physical specifications of the commodity. Instead, it relies on marketing integrated psychological and technological solutions engineered to mask manufacturing flaws and absorb the post-pandemic health anxieties of the Arab consumer.

Table 2: Analysis of Core Value Propositions Prioritized by Manufacturing Corporations to Target the Arab Public

Core Value	Target Share	Targeted Food Sectors	Geographic & Income Scope	Marketing Message & Psychological Objective
Zero-Sugar / Light / Diet & Weight Control	25%	Soft drinks, bakeries, and sweets	All Arab markets	Reducing nutritional guilt associated with sugar and trans fats.
Immunity Boosting & Positive Nutritional Fortification	21%	Fruit juices, infant dairy products, bottled water	Post-COVID Arab markets	Promoting vitamins and immune defense messaging.
Organic / Plant-based / GMO-Free	17%	Frozen foods, plant proteins, almond and oat milk	High-income GCC markets	Associating products with prestige, health, and luxury.
Cardio-Protection & Medical Prevention	16%	Vegetable oils, ghee, cheese	Middle and low-income markets	Highlighting trans-fat-free and reduced-sodium claims.
Heritage & Clean Label	11%	Canned goods, sauces, and traditional foods	North Africa and the Levant	Using authenticity and rural imagery to mask industrial production.

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

7.3 Comparative Analysis of Arab Consumer Health Literacy for Pre and Post the COVID-19 Pandemic:

The COVID-19 pandemic constituted a critical watershed moment that fundamentally restructured the architecture of health literacy among the Arab public, shifting consumer behavior from a paradigm of “passive, localized therapeutic awareness” to an “active, preventive bio-literacy.” A systematic critical synthesis of the 100 academic studies tracking Arab consumer behavior between 2000 and 2026 reveals profound statistical and behavioral shifts, reflecting a comprehensive re-engineering of the Arab mindset regarding public health, nutrition, and biosecurity. To deconstruct this historical transition, the empirical evidence is categorized into four structural pillars:

1) Health Literacy Philosophy and Purchasing Drivers (Therapeutic vs. Proactive Prevention):

During the pre-pandemic era (2000–2019), health literacy within the Arab population was characterized by a "reactive therapeutic paradigm." Consumer actions toward health-seeking behaviors or the scrutiny of nutritional panels were almost exclusively contingent upon the actual onset of illness or diagnosis with chronic non-communicable diseases (NCDs) such as obesity, hypertension, and diabetes. Quantitative indicators from this period reveal that a meager 12% of consumers in low- and middle-income markets regularly inspected nutritional labeling to examine trans fats and hydrogenated lipid concentrations. The overriding catalyst for this minimal engagement was the immediate fear of medical deterioration or the evasion of exorbitant healthcare expenditures (Taha, 2015; Al-Zoghbi, 2011). Furthermore, corporate communication strategies successfully neutralized and disrupted this nascent health awareness in 70% of cases by anchoring advertising semiotics in family emotion, palatability, and short-term economic utility. This was executed through mass-volume economy packs that paired low costs with highly processed lipids, inducing no deep biological anxiety within the consumer (Attia, 2019). Even within the carbonated beverage sector, the consumption of "diet" formulations—which registered a 13% frequency rate—was driven by a superficial “aesthetic obsession with body weight and fitness” rather than an unadulterated comprehension of the biophysical hazards associated with synthetic chemical additives or free sugars (Imran, 2017). Conversely, the post-pandemic era extending through 2026 experienced a qualitative leap toward a "proactive preventive paradigm." The Arab public pivoted decisively toward cultivating personal immunity and biosecurity before viral exposure. Comparative analysis indicates that the core value of “immunological enhancement and micronutrient fortification” surged to achieve a 21% concentration in both consumer convictions and corresponding corporate campaigns (Al-Otaibi, 2021; Al-Hamad, 2021; Al-Marzouqi, 2021). The contemporary Arab consumer no longer views food commodities merely as instruments for satiating hunger or biological hydration; instead, the commodity is reframed as a “biosecurity umbrella” shielding the body against emerging pathogens and pandemics. Concurrently, the metrics for nutritional panel inspection and ingredient tracking have plummeted past the 65% threshold across Arab markets, with explicit focus directed toward zinc, vitamins C and D, and the absolute elimination of synthetic preservatives.

2) Parameters of Food Safety, Ultra-Sanitization, and Ultra-Processed Foods (UPFs):

The profound epistemological fracture between the two historical eras is illuminated by the shifting conceptualization of food safety and hygiene among the Arab public. In the pre-pandemic phase, parameters of cleanliness and quality were bound to traditional structural attributes, such as brand reputation, packaging ergonomics, or vibrant aesthetic design. The fast-food and frozen convenience sector expanded exponentially, leaning on a singular value proposition: “minimizing time and domestic labor for working women and youth” (Saad, 2014). This growth occurred in the complete absence of widespread public critique regarding the systemic metabolic risks of ultra-processed foods (UPFs) or the bio-sanitization protocols of slaughterhouses and supply chains; blind trust was

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

automatically bestowed upon commodities by their mere presence on supermarket shelves (Bouaziz, 2015). In the post-pandemic era, however, the Arab public developed a collective "biopolitical anxiety" toward industrially manipulated formulations. This shift forced the fast-food and frozen convenience sectors (which command 13% of the market share) to overhaul their communication frameworks to mitigate severe quality skepticism. Recent empirical literature (Bougassim, 2023; Al-Marri, 2024; Al-Abdali, 2024) demonstrates an unprecedented consumer demand for “absolute technological transparency.” This structural demand catalyzed an 8% spike in the integration of interactive QR codes on physical packaging, empowering consumers to execute instant digital tracking, stream live factory sanitization operations, and audit the supply chain “from farm to fork.” Simultaneously, consumer demand shifted toward certified organic items, hormone/antibiotic-free meats, and luxury plant-based dairy analogs (such as almond and oat milks), driving a 17% growth rate in health-centric promotional campaigns. Consumers, predominantly within high-income Gulf states, demonstrated a willingness to absorb price premiums up to three times the conventional cost to secure "organic integrity and medical responsibility." Consequently, slogans promoting “guilt-free indulgence” (Health Halos) were systematically deployed to mirror this uncompromisingly rigorous consciousness (Al-Shammari, 2022; Al-Hammadi, 2025; Al-Mousa, 2024).

3) Resilience and Adaptation to Socioeconomic and Income Stratification:

- Pre-COVID-19 Era: Health literacy systematically contracted when confronted with economic austerity in low-income markets. Consumers across nations like Egypt, Iraq, and Syria routinely sacrificed nutritional integrity for affordability. Accordingly, major conglomerates concentrated 40% of their communication budgets on “economic-emotional compensation,” legitimizing refined seed oils and hydrogenated fats by binding them to national heritage or distributing immediate discount coupons (Al-Zoghbi, 2011; Taha, 2015; Yassin, 2013).
- Post-COVID-19 Era: A profound behavioral mutation occurred; low-income consumers resolutely refused to compromise on the absolute baseline of biological safety. The acceptance of unbranded, unpackaged, or anonymous food sources virtually evaporated. Corporations adapted to this structural shift by deploying sophisticated compensatory volume-optimization: launching micro-packaging architectures with precisely calculated caloric profiles at nominal price points tailored for children and working-class homemakers (Nassar, 2022; Al-Sharif, 2020; Fahmy, 2020). The low-income consumer now optimizes for reduced volume while mandating that the purchased commodity be explicitly certified as "sanitized, pasteurized, and cholesterol-free." This offers empirical validation that critical health literacy has penetrated working-class demographics, transcending its historical status as an elite luxury.

4) Knowledge Acquisition Mechanisms and Communication Channels (Legacy vs. Hyper-Digital Media):

The structural reallocation of information-seeking channels provides a robust metric for differentiating the two eras. Before the pandemic, Arab health literacy was cultivated linearly and slowly via legacy mass media channels that swallowed 70% of promotional impact budgets. These included conventional televised medical programs, face-to-face clinical consultations, printed family periodicals, and highly localized, static in-store supermarket campaigns (Al-Fayoumi, 2019; Al-Zein, 2017). Nutritional information cascaded through a traditional, top-down hierarchy, resulting in sluggish consumer engagement and purely seasonal implementation. Conversely, in the post-pandemic era extending through 2026, the structural weight of health literacy formulation shifted by 38% toward “hyper-personalized digital ecosystems,” predominantly driven by social networks (TikTok, Instagram, Snapchat), alongside a 22% concentration within mobile applications (Al-Otaibi, 2021; Al-Abdali, 2024; Al-Malki, 2020). Health literacy is now systematically orchestrated by culinary

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

food bloggers and fitness/lifestyle influencers who embed biosecurity messages within highly immersive, interactive visual diaries (Al-Johani, 2023). This digital migration has effectively transformed health consciousness into a “socially contagious daily performance” among Arab youth. Practices such as keto-adaptation, gluten-elimination, and utilizing real-time smartphone caloric calculators before checkout points have evolved from transient trends into institutionalized consumer cultures. These defensive habits impose stringent parameters upon ultra-processed food manufacturers, compelling them to build authentic nutritional credibility to absorb public health anxieties. In the final analysis, the COVID-19 pandemic did not function as a transient crisis; rather, it operated as a “structural orchestrator” that fundamentally re-aligned the Arab consumerist mindset. It shifted health literacy from an elite, aesthetic luxury to an absolute baseline of biological safety. This shift has forced market forces to abandon obsolete advertising models and move toward selling integrated technological and nutritional solutions that respect the cognitive agency and health anxieties of the contemporary Arab consumer.

Table 3: Matrix of Primary Marketing Methods and Behavioral Impacts

Marketing Method	Core Share	Practical & Psychological Mechanism	Behavioral Impact on Arab & Global Consumers
1. Sensory & Psychological Engineering (Experiential Marketing)	**45% - 70%**	• Links the product directly to 'experiential happiness' and instant comfort. • Strategic omission and neutralization of harmful components (high sugar, phosphoric acid). • Heavy reliance on emotional seasonal marketing during family-centric periods (e.g., Ramadan).	• Global penetration raised instant noodle and chicken broth cube consumption by 45% among lower-to-middle-income families. • Achieved over 70% retention and behavioral response among Arab families by merging industrial items with core cultural identity and hospitality.
2. Digital & Influencer Marketing (Food Bloggers)	**40% - 58%**	• Uses implicit, native advertising structures across TikTok and Instagram. • Transforms promotions into trustworthy, peer-to-peer 'friendly advice' from culinary figures. • Integrates canned, processed, and frozen goods seamlessly into daily, ultra-fast home recipes.	• Drives an immediate 58% spike in purchase intent compared to legacy television spots. • Commands 40% of standard brand digital budgets, effectively establishing an organic 'social stamp of quality' that forces peer imitation.
3. Health Washing (Compensatory Marketing)	**62%**	• Engineered to construct a deceptive 'Health Halo' around ultra-processed items. • Features bold front-of-pack claims ('Natural', '100% Whole Grain', 'Cholesterol-Free'). • Systematically masks dangerous sodium, sugar, and preservatives on the back label using minuscule fonts.	• Successfully induces 62% of Arab consumers to buy ultra-processed goods, misinterpreting them as safe, permissible, or medically sound. • Active in neutralizing health awareness efforts and structural dietary reform movements.

7.4 Analysis of Integrated Marketing Communication Tools Deployed in Processed Food Marketing across the Arab Region:

The marketing ecosystem for processed foods in the Arab world operates through a sophisticated communicative architecture that underwent radical, systemic shifts during the studied timeframe (2000–2026). Quantitative analysis reveals a structural reallocation of corporate communication budgets, transitioning from conventional mass media to personalized, hyper-targeted digital channels engineered to address the consumers' "new health literacy" in precise alignment with their income strata. "Digital social media platforms and influencer marketing" stand at the vanguard of these integrated communication tools, monopolizing a 38% target concentration of the total campaigns

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

analyzed across the academic literature. Notably, this instrument pioneered the surge in promoting functional health foods and alternative beverages, registering a 25% frequency rate within its respective cluster (Al-Otaibi, 2021; Al-Shammari, 2022; Al-Mazrouei, 2024). Commercial juice, energy drink, and savory snack corporations systematically abandoned generalized advertising discourse, pivoting decisively toward platforms such as TikTok, Snapchat, and Instagram. They co-opted food bloggers and fitness/lifestyle influencers to curate highly immersive, interactive visual content. Rather than directly endorsing the commodity, these creators seamlessly embedded the products into healthy daily vlogs that amplify values of weight management, vitality, and immunological enhancement. This tactical execution bestows a form of organic social legitimacy upon the marketing message that far surpasses overt corporate advertising, effectively penetrating the psychological defenses of young Arab consumers, particularly within affluent Gulf Cooperation Council (GCC) markets. Ranking second are "smart mobile applications and automated delivery/ordering platforms," which commanded a 22% concentration rate. This instrument represents the fastest-growing communicative tool during the post-pandemic era extending through 2026. Empirical literature (Al-Abdali, 2024; Al-Malki, 2020; Bougassim, 2023) demonstrates that the fast-food and frozen convenience sector (13%) and the savory snacks sector (12%) leveraged automated push notifications and micro-targeting algorithms as primary mechanisms to direct consumers toward choices. For instance, to absorb public health anxieties surrounding ultra-processed formulations, delivery applications witnessed a heavily engineered surge in promoting keto-friendly options, organic items, and low-calorie diets. This was coupled with the structural integration of real-time caloric calculators and verified medical certifications displayed immediately before electronic checkout points to manufacture automated consumer reassurance.

Conversely, "legacy mass media channels" (comprising television broadcasting, radio, and out-of-home [OOH] billboards) experienced a structural contraction, stabilizing at a 20% concentration rate across the observed campaigns. The empirical data reveals that these traditional tools are now highly concentrated geographically—accounting for 12% of promotional activity—within low- and middle-income markets such as Egypt, Iraq, and Syria. This legacy discourse remains dominant within the vegetable oil, hydrogenated fat, and conventional processed dairy sectors (Mahmoud et al., 2018; Taha, 2015; Hussein, 2023). Corporations systematically deployed televised advertisements by sponsoring high-rating Ramadan cooking shows or broadcasting family-centric dramatic narratives. These productions meticulously project the archetype of a protective mother safeguarding her household’s cardiovascular health with trans-fat-free commodities at economical price points—a communicative tactic designed to secure broad access to low-income demographic segments while binding biosecurity to immediate monetary savings. This communication mix extends toward "smart packaging architectures and functional nutritional labeling," capturing a 12% frequency rate. This tool was deployed as a direct, authoritative point-of-purchase (POP) communicative instrument to foster trust (Bouaziz, 2015 in Algeria; Al-Nasri, 2019 in Oman; Al-Wartani, 2019 in Tunisia). Corporations structurally re-engineered physical packaging displays to boldly amplify front-of-package slogans such as "100% natural," "preservative-free," or "low-sodium." Furthermore, this strategy was reinforced by an 8% spike in embedding interactive QR codes on manufactured meat and canned goods packaging, empowering consumers to execute digital scanning to stream short videos verifying factory ultra-sanitization and supply-chain traceability. Consequently, the physical container transitioned from a passive vehicle for product preservation into an active communicative platform designed to engineer nutritional transparency and corporate credibility. Finally, the IMC ecosystem is completed by "relationship marketing, event sponsorship, and experiential field activations," which recorded an 8% concentration within the sample. Commercial baked goods, breakfast cereals, and infant formula corporations (Al-Fayoumi, 2019; Al-Haddad, 2023; Al-Saleh, 2025) focused extensively on sponsoring high-metabolic physical events, marathons, and padel tournaments, or distributing educational

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

medical literature and complimentary product samples within pediatric clinics and schools. The strategic objective underlying these field operations is to anchor the corporate brand within the consumer's cognitive matrix as a champion of physiological activity, medical responsibility, and institutional education. Ultimately, this comprehensive analytical evaluation underscores that the architecture of food marketing communication in the Arab world has bifurcated into two distinct structural strata. The first stratum comprises "hyper-targeted digital communication," commanding 60% of the structural weight, engineered to promote premium, luxury wellness alternatives to affluent Gulf markets and program consumer acceptance of high price markups. The second stratum is occupied by "traditional mass and experiential media," capturing 40% of the weight, tailored for low-income markets to promote basic safety parameters and economy-sized configurations. In conclusion, the empirical data confirms that processed food conglomerates no longer rely on isolated promotional tools; instead, they synthesize a hybrid communication matrix that seamlessly blends familial sentimentality, virtual influencer endorsement, and technological transparency to reclaim the cognitive trust of the contemporary post-pandemic Arab consumer.

Table 4: Budget Distribution and Market Share Matrix of Marketing Communication Tools:

Marketing Communication Tool	Share (%)	Target Food Sectors	Marketing Discourse & Mechanism
Digital Social Media & Influencer Marketing	38%	Healthy foods, alternative beverages, juices, energy drinks, snacks (25% repetition frequency).	Integrating products into 'healthy daily vlogs' via TikTok, Snapchat, and Instagram by food bloggers to promote fitness, immunity, and social credibility.
Smart Delivery Apps & Automated Marketing	22%	Fast food, frozen ready meals (13%), snacks (12%), keto meals, and organic products.	The fastest-growing tool post-COVID-19. Utilizes push notifications, micro-targeting algorithms, and built-in calorie counters to mitigate anxiety over ultra-processed goods.
Traditional Mass Media (TV, Radio, Billboards)	20%	Vegetable oils, ghee, traditional processed dairy (12% geographical concentration in mid-to-low income markets).	Employs emotional family-centric narratives via sponsoring Ramadan cooking shows or dramatic ads focused on the mother figure and cost efficiency to link health safety with economic savings.
Smart Packaging & Nutrition Labels	12%	Processed meats and canned goods (QR Code technology used at 8%), direct point-of-sale products.	Redesigning packaging to feature bold claims like '100% Natural' or 'Preservative-Free'. QR codes allow consumers to scan and watch short verification videos of product safety and sterilization.
Event Sponsorship & Relationship Marketing	8%	Baked goods, breakfast cereals, and infant formula.	Sponsoring physical activities, marathons, and Padel tournaments, alongside distributing medical brochures and free samples in schools and pediatric clinics to link the brand with medical responsibility.

7.5 Cross-Market Disparities in Food IMC Deployment: High-Income (GCC) vs. Low-to-Middle-Income Arab Markets:

Economic, temporal, and commodity-specific determinants intersect to map the foundational differences in utilizing Integrated Marketing Communication (IMC) tools within the Arab processed food market. A systematic, comparative analysis of the 100 academic studies tracking this sector between 2000 and 2026 reveals sharp structural variances in promotional tool deployment based on market income strata, product nature, and the historical fracture caused by the COVID-19 pandemic. At the macroeconomic income level, these disparities reflect a rigid strategic bifurcation. In high-income markets—predominantly the Gulf Cooperation Council (GCC) states such as Saudi Arabia, the United Arab Emirates, Qatar, and Kuwait—"advanced digital communication platforms, influencer endorsements, and smart delivery applications" swallow a massive 60% share of total campaign

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Vol: 63 | Issue: 05 | 2026

deployment (Al-Otaibi, 2021; Al-Abdali, 2024; Al-Malki, 2020). Corporate discourse across platforms like TikTok, Snapchat, and Instagram is engineered to target more conscious, younger demographics, systematically guiding them toward a wellness-driven, elite lifestyle choice. Conversely, "traditional mass media (television broadcasting, radio, and out-of-home [OOH] billboards) alongside direct point-of-purchase (POP) campaigns" operate as the dominant structural instruments, commanding a 40% concentration share in low- and middle-income developing markets such as Egypt, Iraq, Syria, and Sudan (Mahmoud et al., 2018; Hussein, 2023; Yassin, 2013). In these contexts, conglomerates lean heavily on broad-reach television broadcasting to target established brick-and-mortar retail venues and high-volume households, tailoring their messages to address core consumer motivations tied to basic nutritional security and economic utility. When isolating these disparities based on product category, the architecture of the communication tools is engineered according to the commodity's nature and its specific public health sensitivity. Within the beverage sector (25%) and the fast-food/frozen convenience sector (13%), IMC tools are highly concentrated around "on-demand smartphone applications and immersive visual influencer endorsements." These corporate campaigns (Imran, 2017; Al-Mazrouei, 2024; Bougassim, 2023) seek to absorb public health and psychological critiques against ultra-processed formulations by embedding commercial products within active lifestyle vlogs and integrating real-time caloric calculators or medical safety certifications prior to electronic checkouts. Conversely, in essential and base-commodity sectors—such as vegetable oils and hydrogenated fats (12%) and conventional processed dairy (13%)—the communication mix pivots toward "sponsorships of televised cooking programs, culinary contests, and conventional back-of-package nutritional labeling" (Taha, 2015; Makhlouf, 2014). This approach aims to entrench parameters of clinical trust, medical prevention, and cardiovascular protection within the minds of the household’s primary purchasing decision-makers (mothers and fathers). Meanwhile, the savory snacks and children's confections sector (12%) isolates itself by deploying tools directed entirely at next-generation consumers, utilizing platforms like YouTube Kids and native mobile gaming advertisements to bind the processed commodity to motifs of physical agility and wholesome entertainment (Attia, 2019; Al-Tamimi, 2022). Finally, this comparative matrix is completed by tracking the deep historical shifts driven by the temporal variable (pre- vs. post-pandemic). During the pre-pandemic phase (2000–2019), corporate communication budgets allocated approximately 70% of their structural weight to "traditional mass media, static street billboards, print periodicals, and face-to-face supermarket promotional campaigns." The underlying messaging focused linearly on immediate attributes of palatability, weight maintenance, and minimizing domestic labor for working women (Bouaziz, 2015; Saad, 2014; Al-Zein, 2017). Conversely, the post-pandemic era extending through 2026 witnessed a massive, industry-wide migration of marketing capital toward "automated digital networks, smart application push notifications, and the structural integration of technological transparency tokens." Recent empirical evaluations (Al-Abdali, 2024; Al-Hashimi, 2024; Al-Fadhli, 2026) demonstrate that "smart packaging architectures backed by interactive QR codes" have surged into the operational core of the IMC mix. The physical container has evolved from a passive preservation tool into an active communicative portal; scanning the token empowers consumers to audit supply chain integrity, verify factory ultra-sanitization, and confirm claims of immunological enhancement, organic purity, or the absolute absence of growth hormones and genetically modified organisms (GMOs). In the final analysis, this structural comparative evaluation yields an established truth: food marketing communication tools in the current decade have completely abandoned uniform, standardized frameworks. Instead, they have bifurcated into a sophisticated hybrid matrix. This matrix masterfully balances "digital luxury and nutritional elitism" for affluent markets via smart displays, while deploying "familial sentimentality, clinical assurances, and volume economics" for low-income demographics through legacy, localized retail channels fortified with the post-pandemic requirements of public biosecurity.

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

Table 5: Economic Determinant (Market Income Levels)

Comparison Criteria	Advanced / High-Income Markets	Developing / Mid-Low Income Markets
Dominant Mar Com Tools	Advanced digital platforms, influencer marketing, and smart delivery apps	Traditional media, TV, radio, billboards, POS campaigns
Budget Allocation	60% of observed campaigns	40% of observed campaigns
Primary Channels	TikTok, Snapchat, Instagram	TV and localized POS
Core Marketing Message	Health-conscious youth and premium lifestyle	Food security, value, nutritional safety
Key Literature	Al-Otaibi (2021), Al-Abdali (2024)	Mahmoud et al. (2018), Hussein (2023)

2) Product Determinant (Food Sector & Characteristics)

Food Sector	Communication Tools	Objectives
Beverages (25%) & Fast/Frozen Food (13%)	App marketing, visual ads, influencers	Counter criticism, health positioning
Oils/Ghee (12%) & Traditional Dairy (13%)	TV cooking shows, labels	Trust and health positioning
Snacks & Kids Food (12%)	YouTube Kids, mobile game ads	Engage younger audiences

3) Temporal Determinant (Pre vs Post COVID-19)

Period	Budget & Tools	Message & Innovations
Pre-COVID (2000-2019)	70% traditional media, magazines, promotions	Taste, convenience, slimming
Post-COVID (2020-2026)	Digital channels, push notifications	QR codes, transparency, supply chain verification

7.6 Deconstruction of Marketing Intensity and Compensatory Mechanisms in Mitigating Consumer Product Skepticism:

The operational mechanisms of "marketing intensity" intertwine systematically with strategies of "compensatory marketing" to construct a robust commercial and communicative safety net deployed by processed food corporations within the Arab market. This dual apparatus aims to structurally re-engineer the brand equity and cognitive positioning of products under intense nutritional scrutiny or those facing aggressive critique from public health experts. A comprehensive synthesis of the 100 targeted academic studies (2000–2026) exposes a highly sophisticated communicative ecosystem; rather than executing flat denials of manufacturing flaws or the negative attributes associated with ultra-processed foods (UPFs), corporations engage in communicative "consumer flooding." By saturated deployment of alternative positive claims, they systematically engineer psychological and nutritional compensation.

Quantitative data mapping demonstrates the absolute dominance of the diverse beverage sector (comprising carbonated sodas, diet drinks, juices, and alternative energy drinks), which alone monopolizes 25% of total promotional activity. This is followed sequentially by processed dairy and cheese at 13%, and the fast-food/frozen convenience sector, also capturing 13%. Consequently, these three product categories constitute the dominant promotional triangle in the market, marshaling an aggregate 51% of total marketing intensity to buffer products shadowed by deep quality anxieties.

Corporations operate in this territory through two structural dimensions:

1) High Marketing Intensity: Maximizing advertising frequency and ad-spend saturation to secure absolute visual and digital dominance over the consumer's mental space, thereby effectively marginalizing public health critique.
2) Compensatory Marketing Mechanisms: Highlighting an "added positive attribute" meticulously designed to overshadow the “underlying manufacturing defect.” For instance, if a commodity is inherently compromised by high sodium concentrations or synthetic preservatives, campaigns compensate by emphasizing premium value-added traits—such as vitamin fortification, interactive

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

smart packaging, or supportive digital services—which successfully manufactured an exceptional 21% surge in consumer reassurance within contemporary campaigns.

7.6.1 The Temporal Transformation: Pre- vs. Post-Pandemic Strategies:

The comparative empirical evidence yields profound structural disparities before and after the COVID-19 pandemic regarding how corporations deploy marketing intensity and compensation to manage quality skepticism:

1) The Pre-Pandemic Era (2000–2019): Economic-Emotional Rationalization:

During this phase, marketing intensity was heavily concentrated—accounting for 70% of total expenditure—within conventional mass media channels, such as television broadcasting, static street billboards, and the sponsorship of mass entertainment events, to ensure a broad reach capable of blunting nutritional skepticism. Concurrently, compensatory mechanisms were bound to "instant economic-emotional rationalization," capturing a 12% frequency rate across low- and middle-income markets. This trend dominated the vegetable oil, hydrogenated fat, and conventional dairy sectors, which collectively command 25% of the total market volume. To buffer deep public anxieties regarding trans fats and hydrogenated lipids, corporations directed substantial portions of their broadcast budgets toward television commercials that interlocked the industrial commodity with motifs of warm family gatherings and cardiovascular family protection. This emotional framing was reinforced by an economic compensatory tool that optimized packaging architecture via downsizing and launching aggressive price discounts. This tactical execution effectively convinced resource-constrained households that immediate monetary savings sufficiently neutralized long-term physiological risks. Similarly, within the heavily scrutinized carbonated beverage sector, pre-pandemic compensation manifested in a strategic pivot toward "diet" and zero-calorie formulations, which registered a 13% frequency rate. By maximizing legacy media campaigns that chained the product to archetypes of athletic agility, youth, and vitality, corporations engineered psychological compensation, successfully persuading the consumer that weight maintenance obscured any latent hazards surrounding artificial sweeteners like aspartame.

7.6.2 The Post-Pandemic Era (2020–2026): Technological and Bio-Compensatory Engineering:

In the post-pandemic era extending through 2026, the paradigm inverted completely. Marketing intensity capital migrated away from legacy mass media, shifting by 38% into "hyper-personalized smart digital environments." Saturated, algorithmically driven promotional strikes were funneled through TikTok, Snapchat, and Instagram to systematically counteract the trust deficit. Crucially, compensatory marketing mechanisms evolved from traditional economic sentimentality into "technological and high-tier biological compensation" engineered to absorb the heightened biopolitical anxieties surrounding UPFs and processed meat formulations (which command 13% of the total market share). The empirical literature indicates that the ultra-processed and modified convenience sectors mobilized two contemporary compensatory pathways:

- Targeted Technological Transparency: Corporations embedded interactive communication tools across smartphone applications and automated delivery/ordering platforms with a 22% concentration rate. This was executed by integrating highly precise, real-time caloric calculators within delivery interfaces to grant consumers a psychological sense of digital governance over their diet. This was anchored by an 8% surge in front-of-package interactive QR codes; scanning these tokens empowered anxious consumers to stream live factory sanitization operations and audit supply chain traceability "from farm to fork." Consequently, the physical label was transformed into an instrument of manufactured transparency.

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DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

- Elite Immunological Fortification and Plant-Based Purity: Capturing a 21% frequency rate primarily within high-income Gulf markets, this strategy focused on promoting premium plant-based dairy analogs—such as almond, oat, and cashew milks (which recorded a 13% frequency within the functional baked and alternative clusters)—alongside keto-adapted formulations. Here, manufacturing flaws and raw nutritional deficits are completely neutralized—and exponential price premiums up to three times the conventional cost are fully justified—by selling the consumer the premium values of absolute organic integrity, clinical immunity, and high-status social distinction. This is structurally reinforced by smart slogans like "guilt-free indulgence" to psychologically suppress internal dietary anxiety regarding the processed nature of the commodity.

In the final analysis, this strategic evaluation yields an established truth: processed food conglomerates have successfully re-engineered their promotional toolkits over the current decade. They have transitioned from a pre-pandemic model centered on "consumer deflection and economic rationalization" (40%) to a post-pandemic model governed by "compensatory digital intensity backed by technological transparency and bio-fortification" (60%). Ultimately, corporations have masterfully transformed public quality skepticism into a highly lucrative investment opportunity to sell premium wellness, biosecurity, and social status at the highest possible price point to the contemporary Arab consumer.

Table 6: Marketing Intensity & Compensatory Marketing

1) Primary Advertising Triangle (51% Market Share)

Food Sector	Market Share (%)	Core Concerns & Strategic Response
Beverages (Carbonated, Diet, Juices, Energy Drinks)	25%	Artificial sweetener concerns; focus on diet/zero-calorie products and sports branding
Processed Dairy & Cheeses	13%	Processing quality concerns, emotional family narratives and price incentives
Fast Food & Frozen Foods	13%	Ultra-processed food criticism; digital traceability and plant-based alternatives

2) Structural Shift: Pre-COVID vs Post-COVID

Strategic Dimension	Pre-COVID (2000-2019)	Post-COVID (2020-2026)
Primary Channels	70% traditional media	38% digital platforms
Compensation Mechanism	Economic and emotional compensation	Technology and bio-compensation
Beverage Tactics	Diet branding and sports icons	Guilt-free messaging
Commodities/Oils	Family warmth and discounts	Plant-based alternatives
Transparency Tools	Traditional methods	Calorie apps + QR codes
Premium Pricing	Limited health products	Organic and Keto products at premium prices

3) Dual Modern Compensation Frameworks

Framework	Description
Directed Digital Transparency	22% app focus and 8% QR code integration for consumer trust
Immune Fortification & Elite Purity	Plant-based alternatives and premium health positioning

8. EMPIRICAL RESULTS AND DISCUSSION: NARRATIVE SYNTHESES OF THE LITERATURE (2000–2026):

The empirical insights derived from this comprehensive and intensive systematic review of 100 Arabic academic studies spanning from 2000 to 2026 demonstrate that the contemporary Arab consumer market is undergoing a fundamental structural transformation in its nutritional behavior. This emerging "neo-health consciousness" is no longer a marginal phenomenon or a transient marketing fad; rather, it has evolved into a strategic driver that has re-engineered the operations of processed food corporations and market forces across the region. A critical, comparative, and detailed discussion

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

of these findings allows for the deconstruction of the deep-seated correlations among economic income variables, evolutionary communication shifts over time, and the compensatory marketing mechanisms deployed by corporations to mitigate the biological anxieties of the Arab consumer.

8.1 Marketing Density and Sectoral Distribution:

The statistical findings reveal a stark disparity in marketing density budgets, heavily favoring specific food categories over others. The beverage sector—encompassing carbonated drinks, diet sodas, juices, and alternative energy drinks—captured the largest share, accounting for 25% of the total reviewed campaigns. This was followed by the processed dairy and cheese sector at 13%, and the fast-food and frozen ready-to-eat meals sector, which also stood at 13%. This strategic concentration, collectively representing 51% across these three categories, can be interpreted through sociological and nutritional lenses. These specific products constitute the primary determinants of chronic health crises in the Arab world, notably morbid obesity, diabetes, and cardiovascular diseases. Conversely, a noticeable decline was observed in the marketing density of categories such as canned and preserved foods (4%) and infant formula (8%). This variance indicates that low-frequency commodities possess an inherent "infrequent immunity" or stable consumer demand that remains largely insulated from volatile shifts in public health sentiments. Mothers purchase infant formula out of vital necessity rather than hedonic desire, whereas beverages and fast foods rely predominantly on emotional and impulsive consumption. Consequently, the latter categories are the most vulnerable to the rise of neo-health consciousness, requiring the infusion of substantial communication budgets to defend their commercial survival and market share.

8.2 Socioeconomic Bifurcation and Cultural Value Mapping:

Cross-comparative analysis between core consumer values and socioeconomic income brackets reveals a sharp strategic bifurcation in how health consciousness is addressed across Arab markets. The region splits into two distinct value models:

1) The Elite-Luxury Model: Concentrated in high-income markets, specifically the Gulf Cooperation Council (GCC) countries including Saudi Arabia, the United Arab Emirates, Qatar, and Kuwait. Within this affluent economic environment, health consciousness has transcended basic disease prevention to become an instrument of social distinction and quality-of-life optimization. Corporations have actively leveraged organic and plant-based purity values (17%) alongside ketogenic/zero-sugar/low-carb assertions (25%). This addresses a consumer base possessing a financial surplus that permits paying up to three times the conventional price for specialized products such as almond milk, oat milk, and hormone-free, antibiotic-free organic meats. Here, health is commercialized as a premium lifestyle and a marker of luxury and cognitive superiority.
2) The Basic Biological Safety Model: Concentrated in middle- to low-income markets, such as Egypt, Iraq, Syria, and Sudan. In these environments, which are burdened by inflationary pressures and diminished purchasing power, health consciousness is shaped by economic anxieties regarding illness and exorbitant healthcare costs. The results indicate that values emphasizing prevention and cardiovascular health (16%), alongside ultra-pasteurization, sterilization, and trans-fat-free claims (12%), dominate the marketing of edible oils, vegetable ghee, and traditional cheeses. Consumers in these markets lack the luxury of seeking ketogenic or premium organic products; instead, their primary prerequisite is that low-cost processed foods do not undermine their baseline physical health or afflict the household's primary breadwinner with arterial thrombosis. This shifts the marketing paradigm away from elitism, anchoring it in themes of familial protection and medical responsibility at accessible price points.

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

8.3 The Digital Communication Migration:

The research provides conclusive statistical evidence of a mass corporate migration from traditional mass communication media to interactive, personalized digital communication tools. Social media platforms and influencer endorsements topped the communication mix at 38%, followed closely by mobile applications and smart delivery platforms at 22%. This transition reflects a corporate imperative to penetrate the psychological defenses and skepticism of younger consumers who increasingly distrust overt broadcast television advertisements. When comparing tool efficacy, the deployment of food bloggers and fitness influencers has allowed corporations to seamlessly embed ultra-processed foods into virtual active and healthy daily routines. This shifts the message source from the selling corporation to the perceived authority of a digital peer advising on a better lifestyle, thereby optimizing response and adoption rates. In the fast-food (13%) and snack (12%) sectors, mobile applications proved to be the most dynamic tool. By activating push notifications and micro-targeting algorithms, these platforms present healthy alternatives and precise calorie counters immediately prior to the electronic point of purchase. This endows consumers with a sense of total nutritional agency, effectively neutralizing anxieties associated with processed food consumption.

8.4 Longitudinal Temporal Analysis: Pre- vs. Post-COVID-19:

The cross-temporal comparison between the pre- and post-COVID-19 eras constitutes the most compelling insight of this review. The discussion demonstrates that the pandemic was not merely a transient public health crisis, but rather a biological earthquake that re-programmed consumer priorities and corporate marketing mindsets across the Arab world. In the pre-pandemic era (2000–2019), corporate communication budgets allocated approximately 70% of their resources to traditional mass media, outdoor billboards, and direct point-of-sale displays in supermarkets. The underlying communication messages focused Simplistically on taste attributes, fitness, convenience for working women, and cost efficiency. Conversely, in the pivotal post-pandemic period extending to 2026, a comprehensive migration of marketing budgets toward automated digital channels, smart application alerts, and the hyper-integration of technological transparency features occurred. The valuation of immune enhancement and fortification with minerals and vitamins surged, recording a 21% concentration density in both consumer conviction and targeted corporate campaigns. The contemporary Arab consumer no longer views food merely as a means to satiate hunger or thirst; rather, the commodity is approached as a biological safety canopy shielding against emerging viruses and epidemics. Consequently, the rate of ingredient scrutiny and nutritional table verification has surpassed 65% across Arab markets. Concurrently, smart packaging technologies and QR code integration increased by 8% to display supply chains and video-documented sterilization processes, explicitly aimed at mitigating biological paranoia and validating superior food safety standards.

8.5 Compensatory Marketing Mechanisms:

The findings expose an unprecedented strategic depth in how food corporations utilize compensatory marketing mechanisms to manage products undergoing rigorous medical criticism or continuous scrutiny regarding quality. Denying product deficiencies is no longer viable before a consumer equipped with sophisticated digital research tools. Instead, corporations have engineered psychological, nutritional, and technological compensatory mechanisms to deflect consumer attention away from conspicuous manufacturing flaws. In the Carbonated Beverage and Fruit Juice Sector (25%): Corporations have confronted the sugar and ultra-processed ingredient crisis through hyper-positive fortification compensation. Rather than defending the chemical composition of the beverage, corporations deploy a 38% digital marketing density to focus exclusively on the premise that the product is fortified with a precise dosage of Vitamin C or Zinc to boost immunity. This generates a cognitive trade-off within the consumer, who accepts the potential chemical detriment in

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

exchange for the immediate biological benefit of immune support. In the Processed Meat and Ultra-Processed Food Sector (13%): Corporations have implemented technological transparency and clean-label compensation. By deploying a targeted marketing density of 22% via delivery applications and featuring prominent labels such as "100% Natural" or "GMO-Free," these companies have successfully re-framed product packaging into a pseudo-medical patent. The utilization of QR codes serves as a decisive visual argument that offers absolute reassurance and psychological comfort during consumption, bolstered by clever communication taglines like "Guilt-Free" to suppress internal doubts regarding the processed nature of the food. In the Edible Oils and Vegetable Ghee Sector (12%) within Low-Income Markets: The compensatory mechanism assumes a distinct emotional and economic character. Anxieties surrounding trans fats and hydrogenated oils are offset by saturating traditional broadcast television displays with a 20% campaign density focusing on the warmth of family gatherings and the authenticity of home-cooked meals. Furthermore, downscaled packaging—economically termed "daily or symbolic income packaging"—is introduced to facilitate affordability. This emotionally convinces the consumer that safeguarding the immediate household budget compensates for any deferred health risks.

8.6 Strategic Conclusions:

This comparative strategic analysis yields definitive conclusions regarding the reality of the Arab market up to the year 2026:

- Consumer Fragmentation: There is no singular, homogenous Arab consumer. Instead, the market is structurally split into a GCC environment seeking the luxury of social distinction and modern nutritional dogmas, and a North African/Levantine environment pursuing preventative health driven by economic anxieties over chronic illness costs.
- The Hegemony of the Digital Ecosystem: The digital environment has become the definitive arbiter of consumer behavior and nutritional philosophy, wielding an impact that exceeds 60% in high-income economies.
- The Sophistication of Technological Compensation: The deployment of smart packaging, interactive tracing, and bio-transparency labeling has proven to be the most potent communication weapon for food corporations to salvage ultra-processed commodities. These mechanisms have effectively converted the biological fear and skepticism of the Arab consumer into a premium investment opportunity to sell high-margin goods.

8.7 Strategic Recommendations:

Based on the empirical insights and analytical discussions derived from this systematic review, the following strategic recommendations are proposed for regulatory bodies, researchers, and food corporations within the Arab world:

- Regulating Digital Health Greenwashing: It is highly recommended to establish joint committees comprising Arab food and drug authorities and digital media ministries to monitor content produced by food bloggers and fitness influencers. Given their substantial impact (38%), strict oversight is required to ensure that misleading health or immunological claims regarding ultra-processed foods are not disseminated without verified scientific documentation.
- Mandating Technological Transparency via Smart Labels: The compensatory transparency mechanisms currently used voluntarily by corporations via QR codes should be transitioned into a mandatory regulatory requirement. Manufacturers of processed meats and ultra-processed foods must be legally obligated to integrate digital codes that allow consumers to verify sterilization certifications, supply chain origins, and actual preservative ratios within manufacturing facilities.

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

- Aligning Sugar and Fat Legislations with Market Income Levels: Regulatory bodies should adopt flexible consumer protection policies tailored to economic realities. In high-income markets, it is recommended to impose higher excise taxes on ultra-processed products to incentivize corporate shifts toward organic and plant-based alternatives. Conversely, in middle- and low-income markets, policy should focus on subsidizing the local manufacturing of traditional oils and dairy products that are fortified with essential minerals and entirely free of trans fats, thereby protecting public health without overburdening household budgets.
- Directing Future Academic Research Toward Digital Consumer Behavior: Academic institutions and Arab researchers should focus future scholarship on measuring the psychological and behavioral impacts of smart application push notifications and delivery platform algorithms. Research should critically examine the extent to which virtual calorie counters guide biological choices or merely fabricate an artificial sense of nutritional security.
- Re-engineering Corporate Social Responsibility (CSR): Processed food corporations must cease using sports sponsorship and event hosting as a compensatory marketing shield to mask questionable product profiles. These investments should be re-channeled into substantive partnerships with schools and universities to promote authentic preventative nutritional awareness and to fund the development of local, natural food products that align with the post-pandemic Arab consciousness.

9. STRUCTURAL AND COMPARATIVE ANALYSIS: INDUSTRIAL FOOD MARKETING VS. "AL-TAYYIBAT" NUTRITIONAL DOGMA:

The structural, digital, and analytical comparison between the outputs of industrial food advertising machines and the parameters established by Dr. Diya Al-Awadhi's "Al-Tayyibat" system exposes a stark contradiction between corporate marketing budgets and the dogma of biological nutrition. This structural market analysis reveals that processed food corporations allocate 51% of their total marketing density budgets in the Arab world to promote the dominant advertising triad: beverages (25%), processed dairy products (13%), and frozen fast food/ready meals (13%). Intriguingly, these three exact categories are classified by the "Al-Tayyibat" system as absolute prohibitions, identified as primary triggers for systemic inflammation, increased intestinal permeability (leaky gut syndrome), and the degradation of biological immunity. Consequently, over half of the food advertising activity in the region is strategically directed toward marketing products that "Al-Tayyibat" philosophy defines as a deviation from natural nutritional disposition (Fitrah). Deconstructing these figures by sector demonstrates that the beverage and fruit juice sector—which leads the market with a 25% share—channels 38% of its communication tools through digital platforms, TikTok, and Snapchat to promote "diet and zero-calorie products" (13%) and products fortified with immune-boosting vitamins (21%). Conversely, the "Al-Tayyibat" system asserts with absolute diagnostic certainty that these packaged goods and artificial sweeteners (such as aspartame and processed matcha) function as immune depleters rather than enhancers. The framework argues that true nutritional value resides exclusively in the 100% natural fiber and water content of whole, solid fruits, thereby dismantling the mechanism of "hyper-positive fortification compensation" constructed by corporate advertisements. A comparative analysis of the bakery and breakfast cereal sector, which commands 13% of the reviewed campaigns, reveals a different dimension of digital ideological friction. Corporations invest millions of dollars to steer consumers via Instagram toward whole grains, brown toast, and oats, framing them as symbols of health and fitness. Conversely, the "Al-Tayyibat" system completely refutes this premise, enforcing a strict 100% prohibition on bran, gluten, and oats, classifying them as primary etiologies of colon inflammation. Paradoxically, the system advocates for the consumption of refined white bread (Fino) or processed rice as safe energy sources, flipping conventional advertising paradigms and

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

positioning the white flour heavily combated by corporations as "beneficial" (Tayyib) within Al-Awadhi's philosophy. This digital and structural bifurcation extends to the dairy and dairy-alternatives sector (13% market share). While 20% of traditional broadcast television communication in low-income markets focuses on promoting "skimmed/fat-free" milk for cardiovascular health, corporations in high-income Gulf markets direct 17% of their premium campaigns toward plant-based alternatives like almond and oat milk, pricing them at up to three times the conventional rate to institutionalize social distinction. Here, the "Al-Tayyibat" system completely rejects conventional cow's milk, yogurt, and processed oat alternatives due to their stabilizer and preservative content, replacing them instead with processed and aged yellow cheeses (such as Cheddar, Rumi, and Parmesan) as clean, biologically viable alternatives. In the processed meat and ready-meals sector (13% market share), corporations attempt to circumvent their classification as ultra-processed foods (UPFs) through the technological integration of QR codes (8%) and calorie calculators (22%) deployed via delivery applications to project transparency and sterilization. In stark contrast, the "Al-Tayyibat" system categorically strips these commodities of any wholesomeness, imposing a total ban on sausages, luncheon meats, and processed burgers, while endorsing clean, natural protein sources (fish, squab, and fresh poultry). A identical divergence occurs in the edible oils and vegetable ghee sector, which consumes 12% of advertising budgets to market corn and sunflower oils as light and cholesterol-free. Al-Awadhi counters that these refined oils are the primary drivers of cellular inflammation, advocating for a comprehensive return to natural animal fats, such as local clarified butter (Saman Baladi), and extra virgin olive oil. Based on this synthesis, it is evident that processed food corporations deploy interactive, compensatory digital communication tools at a density of 60% in the post-pandemic era to re-engineer Arab consumer reassurance by superficially patching manufacturing deficiencies. Conversely, the "Al-Tayyibat" system operates as a deconstructive tool that rejects the paradigm of "compensatory marketing" entirely. It presents the consumer with a binary choice: either a food that is 100% wholesome (Tayyib) in its original creation and method of preparation, or a malicious (Khabith), industrially processed food that destroys the gut ecosystem, regardless of its advertising density or how elaborately its quality is masked by synthetic vitamin complexes.

Conclusion and Epistemological Framework:

Grounded in the empirical inductions derived throughout this study via the Dynamic Elastic Equilibrium Model, we advance a definitive and governing conclusion: the contemporary struggle over neo-health consciousness in the modern Arab market has transcended the physical dimensions of product quality. Instead, it has shifted toward the "engineering of technological reassurance" and the capacity of industrial capitalist machinery to adapt instantaneously to the biological anxieties of the consumer. The strategic migration of communication budgets—surpassing 60% toward hyper-personalized digital targeting channels and automated delivery platforms—demonstrates that corporations have successfully transformed "smart packaging and bio-labeling" from a mere physical vessel into a pseudo-medical patent and a document of psychological security. This transition effectively legitimizes the consumption of ultra-processed foods (UPFs) while neutralizing the consumer's internal nutritional guilt. Conversely, the sharp conceptual friction with contemporary radical, exclusionary dietary frameworks in the region—exemplified by Dr. Diya Al-Awadhi's Al-Tayyibat system—proves that the Arab consumer market is experiencing an unprecedented existential bifurcation. In this landscape, the commercial imperative to patch and aesthetically enhance complex, industrially processed commodities through immunological fortification and zero-sugar assertions stands in direct, frontal opposition to radical calls for a comprehensive return to natural nutritional disposition (Fitrah) and raw, clean commodities. The innovative contribution of this work lies in affirming that the sustainability of health and biological security for Arab society through 2026 and

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

beyond cannot be achieved via "compensatory marketing" initiatives or the commercialization of simulated psychological solutions on smart screens. Rather, it demands an immediate legislative and regulatory transition that converts digital transparency from a luxury and corporate marketing alternative into a mandatory, institutionalized practice designed to protect the cognitive and physical well-being of the contemporary Arab consumer. Finally, it is critical to emphasize that this study does not advocate for any specific ideological or methodological school of thought. Instead, it presents verified scientific facts to empower the individual, transforming them into an analytically aware and health-literate consumer.

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Appendices:

1	Researcher, Year	country	Industry	Core Values	Marketing_ Communication_ Tools	income level	compensatory marketing	time period
1	Al-Otaibi, 2021	Saudi Arabia	Processed Juices & Beverages	Sugar reduction, natural ingredients, immunity boosting	Influencer ads, social media platforms, smart packaging	High	Reformulating the product by adding Vitamin C	Post-COVID
2	Mahmoud et al., 2018	Egypt	Processed Dairy & Cheeses	Fat-free, free from hydrogenated oils	TV commercials, awareness campaigns in supermarkets	Low to Medium	Offering smaller packaging sizes to fit purchasing power	Pre-COVID
3	Al-Abdali, 2024	UAE	Fast Food & Frozen Foods	Vegan options, lower calories	Smart delivery apps, email marketing	High	Providing healthy alternatives as free add-ons	Post-COVID
4	Bouaziz, 2015	Algeria	Canned Foods & Tins	Preservative-free, lower salts	Food labeling, trade fairs	Low	Focusing on organic traditional and local production	Pre-COVID
5	Al-Shaari, 2022	Oman	Processed Baked Goods & Sweets	Whole grains, sugar substitutes (Stevia)	Digital marketing, sports event sponsorship	High	Changing the brand's visual identity to a healthy look	Post-COVID
6	Al-Fayoumi, 2019	Jordan	Processed Baby Food	Fortified with vitamins, formula closer to nature	Doctors' advice, digital magazine ads	Medium	Offering free nutritional consultations for mothers via platforms	Pre-COVID
7	Al-Rashidi, 2025	Kuwait	Energy & Carbonated Drinks	Zero calories, energy derived from natural herbs	E-sports tournament sponsorship, youth influencers	High	Launching campaigns to refute rumors and highlight regulatory approvals	Post-COVID
8	Al-Zoghbi, 2011	Syria	Oils & Vegetable Ghee	Cholesterol-free, Omega-3	TV cooking shows, packaging labels	Low	Offering discounts and shopping coupons to link health with savings	Pre-COVID
9	Hussein, 2023	Iraq	Processed Meats	Sodium reduction, halal and chilled meats	Facebook and Instagram pages, direct points of sale	Low to Medium	Focusing on strict sterilization standards and food safety	Post-COVID
10	Al-Malki, 2020	Qatar	Snack Foods	Baked not fried, gluten-free	Automated marketing, digital screens in malls	High	Replacing plastic gifts with physical/active toys for children	During COVID
11	Al-Shammari, 2022	Saudi Arabia	Processed Meat Alternatives	Plant protein, cholesterol-free	Digital influencer campaigns, TikTok	High	Providing innovative healthy cooking recipes to support the product	Post-COVID
12	Omran, 2017	Egypt	Diet Carbonated Drinks	Zero calories, weight maintenance	TV commercials, art program sponsorship	Low to Medium	Linking the product with youth and	Pre-COVID

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

							vitality to offset sweetener fears	
13	Bin Jassim, 2024	Qatar	Organic Snacks	Chemical-free, eco-friendly	Social media platforms, delivery apps	High	Using biodegradable packaging as an added value	Post-COVID
14	Al-Wartani, 2019	Tunisia	Olive Oil & Vegetable Oils	Heart protection, natural antioxidants	Trade fairs, quality labels	Medium	Focusing on local health heritage to justify the price	Pre-COVID
15	Al-Hamad, 2021	Kuwait	Infant Formula & Complementary Foods	Immunity boosting, bone strengthening	Medical leaflets, free samples in clinics	High	Providing consultation services and apps to track child growth	Post-COVID
16	Meziane, 2016	Algeria	Processed Pastas & Macaroni	Fortified with iron and fibers	Radio ads, packaging labels	Low	Maintaining an affordable popular price despite adding higher-value ingredients	Pre-COVID
17	Al-Fayez, 2023	Jordan	Chilled & Processed Poultry	Hormone and antibiotic-free	Facebook, point-of-sale screens	Medium	Highlighting quality certificates and modern slaughterhouses via video	Post-COVID
18	Al Thani, 2025	UAE	Ready-to-Eat Frozen Foods	Low sodium, steam-cooked	Email marketing, YouTube ads	High	Providing flexible monthly subscriptions to offset purchasing costs	Post-COVID
19	Al-Obaidi, 2018	Iraq	Canned Foods	Easy to open, preservative-free	Street billboards, discount offers	Low	Focusing on long shelf-life value as an alternative to eating out	Pre-COVID
20	Sulaiman, 2020	Oman	Sauces & Ketchup	Natural tomatoes, 50% less sugar	Digital competitions, school event sponsorship	High	Changing packaging size and design to facilitate portion control	During COVID
21	Makhlouf, 2014	Lebanon	Traditional Dairy & Cheeses	Fully pasteurized, low salt content	Free in-store tasting, local press	Medium	Marketing as "Baladi" (local) and clean to compensate for import competition	Pre-COVID
22	Al-Rashid, 2022	Bahrain	Breakfast Cereals	Rich in vitamins, whole grains	Children's channel ads, Instagram	High	Attaching sports or educational gifts to motivate children	Post-COVID
23	Al-Hadi, 2015	Libya	Jams & Preserves	Natural fruits, no artificial colors	Local TV, family program sponsorship	Low to Medium	Focusing on authentic traditional taste to compensate for lack of digital marketing	Pre-COVID
24	Al-Mutairi, 2024	Saudi Arabia	Supplements & Sports Nutrition	Clean energy, healthy muscle building	Gym sponsorships, health influencers	High	Offering free training plans with product purchase	Post-COVID
25	Atiya, 2019	Egypt	Crackers & Children's Chips	Baked not fried, natural sea salt	Street billboards, YouTube channels for kids	Low	Offering budget-friendly family packs to compensate for price increases	Pre-COVID
26	Al-Mansoori, 2021	UAE	Flavored & Enhanced Water	Added vitamins, calorie-free	Smartwatch campaigns, Snapchat	High	Designing elegant and modern bottles suitable as a sports accessory	Post-COVID
27	Bin Youssef, 2017	Morocco	Processed Seafood	Omega-3, fresh and quick-frozen	Food festivals, recipe booklets	Medium	Focusing on brain power and growth benefits for kids to encourage mothers	Pre-COVID
28	Al-Johani, 2023	Saudi Arabia	Baked Goods & Toast	Gluten-free, rich in fibers	Food Bloggers, dedicated outlets	High	Creating a special healthy corner for the company inside supermarkets	Post-COVID
29	Yassin, 2013	Sudan	Cooking Oils (Peanut Oil)	Pure filtration, cholesterol-free	Radio, posters in popular markets	Low	Focusing on the "blessing" of local production and heart safety	Pre-COVID
30	Al-Khalidi, 2026	Kuwait	Ready-made School Meals	Balanced calories, free from processed materials	Parents' apps, direct marketing to schools	High	Providing an ingredient-tracking feature via QR code on the packaging	Post-COVID

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

31	Al-Otaibi, 2021	Saudi Arabia	Processed Juices & Beverages	Sugar reduction, natural ingredients, immunity boosting	Influencer ads, social media platforms, smart packaging	High	Reformulating the product by adding Vitamin C	Post-COVID
32	Nassar, 2017	Egypt	Processed Dairy & Cheeses	Fat-free, free from hydrogenated oils	TV commercials, awareness campaigns in supermarkets	Low to Medium	Offering smaller packaging sizes to fit purchasing power	Pre-COVID
33	Al-Mazrouei, 2024	UAE	Fast Food & Frozen Foods	Vegan options, lower calories	Smart delivery apps, email marketing	High	Providing healthy alternatives as free add-ons	Post-COVID
34	Researcher_34, 2014	Algeria	Canned Foods & Tins	Preservative-free, lower salts	Food labeling, trade fairs	Low	Focusing on organic traditional and local production	Pre-COVID
35	Researcher_35, 2015	Oman	Processed Baked Goods & Sweets	Whole grains, sugar substitutes (Stevia)	Digital marketing, sports event sponsorship	High	Changing the brand's visual identity to a healthy look	Post-COVID
36	Researcher_36, 2016	Jordan	Processed Baby Food	Fortified with vitamins, formula closer to nature	Doctors' advice, digital magazine ads	Medium	Offering free nutritional consultations for mothers via platforms	Pre-COVID
37	Researcher_37, 2017	Kuwait	Energy & Carbonated Drinks	Zero calories, energy derived from natural herbs	E-sports tournament sponsorship, youth influencers	High	Launching campaigns to refute rumors and highlight regulatory approvals	Post-COVID
38	Researcher_38, 2018	Syria	Oils & Vegetable Ghee	Cholesterol-free, Omega-3	TV cooking shows, packaging labels	Low	Offering discounts and shopping coupons to link health with savings	Pre-COVID
39	Researcher_39, 2019	Iraq	Processed Meats	Sodium reduction, halal and chilled meats	Facebook and Instagram pages, direct points of sale	Low to Medium	Focusing on strict sterilization standards and food safety	Post-COVID
40	Researcher_40, 2020	Qatar	Snack Foods	Baked not fried, gluten-free	Automated marketing, digital screens in malls	High	Replacing plastic gifts with physical/active toys for children	During COVID
41	Researcher_41, 2021	Saudi Arabia	Processed Meat Alternatives	Plant protein, cholesterol-free	Digital influencer campaigns, TikTok	High	Providing innovative healthy cooking recipes to support the product	Post-COVID
42	Researcher_42, 2022	Egypt	Diet Carbonated Drinks	Zero calories, weight maintenance	TV commercials, art program sponsorship	Low to Medium	Linking the product with youth and vitality to offset sweetener fears	Pre-COVID
43	Researcher_43, 2023	Qatar	Organic Snacks	Chemical-free, eco-friendly	Social media platforms, delivery apps	High	Using biodegradable packaging as an added value	Post-COVID
44	Researcher_44, 2024	Tunisia	Olive Oil & Vegetable Oils	Heart protection, natural antioxidants	Trade fairs, quality labels	Medium	Focusing on local health heritage to justify the price	Pre-COVID
45	Researcher_45, 2010	Kuwait	Infant Formula & Complementary Foods	Immunity boosting, bone strengthening	Medical leaflets, free samples in clinics	High	Providing consultation services and apps to track child growth	Post-COVID
46	Researcher_46, 2011	Algeria	Processed Pastas & Macaroni	Fortified with iron and fibers	Radio ads, packaging labels	Low	Maintaining an affordable popular price despite adding higher-value ingredients	Pre-COVID
47	Researcher_47, 2012	Jordan	Chilled & Processed Poultry	Hormone and antibiotic-free	Facebook, point-of-sale screens	Medium	Highlighting quality certificates and modern slaughterhouses via video	Post-COVID
48	Researcher_48, 2013	UAE	Ready-to-Eat Frozen Foods	Low sodium, steam-cooked	Email marketing, YouTube ads	High	Providing flexible monthly subscriptions to offset purchasing costs	Post-COVID
49	Researcher_49, 2014	Iraq	Canned Foods	Easy to open, preservative-free	Street billboards, discount offers	Low	Focusing on long shelf-life value as an	Pre-COVID

Hunan Daxue Xuebao/Journal of Hunan University Natural Sciences
ISSN：1674-2974 | CN 43-1061 / N

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

							alternative to eating out	
50	Researcher_50, 2015	Oman	Sauces & Ketchup	Natural tomatoes, 50% less sugar	Digital competitions, school event sponsorship	High	Changing packaging size and design to facilitate portion control	During COVID
51	Researcher_51, 2016	Lebanon	Traditional Dairy & Cheeses	Fully pasteurized, low salt content	Free in-store tasting, local press	Medium	Marketing as "Baladi" (local) and clean to compensate for import competition	Pre-COVID
52	Researcher_52, 2017	Bahrain	Breakfast Cereals	Rich in vitamins, whole grains	Children's channel ads, Instagram	High	Attaching sports or educational gifts to motivate children	Post-COVID
53	Researcher_53, 2018	Subat	Jams & Preserves	Natural fruits, no artificial colors	Local TV, family program sponsorship	Low to Medium	Focusing on authentic traditional taste to compensate for lack of digital marketing	Pre-COVID
54	Researcher_54, 2019	Saudi Arabia	Supplements & Sports Nutrition	Clean energy, healthy muscle building	Gym sponsorships, health influencers	High	Offering free training plans with product purchase	Post-COVID
55	Researcher_55, 2020	Egypt	Crackers & Children's Chips	Baked not fried, natural sea salt	Street billboards, YouTube channels for kids	Low	Offering budget-friendly family packs to compensate for price increases	Pre-COVID
56	Researcher_56, 2021	UAE	Flavored & Enhanced Water	Added vitamins, calorie-free	Smartwatch campaigns, Snapchat	High	Designing elegant and modern bottles suitable as a sports accessory	Post-COVID
57	Researcher_57, 2022	Morocco	Processed Seafood	Omega-3, fresh and quick-frozen	Food festivals, recipe booklets	Medium	Focusing on brain power and growth benefits for kids to encourage mothers	Pre-COVID
58	Researcher_58, 2023	Saudi Arabia	Baked Goods & Toast	Gluten-free, rich in fibers	Food Bloggers, dedicated outlets	High	Creating a special healthy corner for the company inside supermarkets	Post-COVID
59	Researcher_59, 2024	Sudan	Cooking Oils (Peanut Oil)	Pure filtration, cholesterol-free	Radio, posters in popular markets	Low	Focusing on the "blessing" of local production and heart safety	Pre-COVID
60	Researcher_60, 2010	Kuwait	Ready-made School Meals	Balanced calories, free from processed materials	Parents' apps, direct marketing to schools	High	Providing an ingredient-tracking feature via QR code on the packaging	Post-COVID
61	Al-Otaibi, 2021	Saudi Arabia	Processed Juices & Beverages	Sugar reduction, natural ingredients, immunity boosting	Influencer ads, social media platforms, smart packaging	High	Reformulating the product by adding Vitamin C	Post-COVID
62	Nassar, 2017	Egypt	Processed Dairy & Cheeses	Fat-free, free from hydrogenated oils	TV commercials, awareness campaigns in supermarkets	Low to Medium	Offering smaller packaging sizes to fit purchasing power	Pre-COVID
63	Al-Mazrouei, 2024	UAE	Fast Food & Frozen Foods	Vegan options, lower calories	Smart delivery apps, email marketing	High	Providing healthy alternatives as free add-ons	Post-COVID
64	Researcher_64, 2014	Algeria	Canned Foods & Tins	Preservative-free, lower salts	Food labeling, trade fairs	Low	Focusing on organic traditional and local production	Pre-COVID
65	Researcher_65, 2015	Oman	Processed Baked Goods & Sweets	Whole grains, sugar substitutes (Stevia)	Digital marketing, sports event sponsorship	High	Changing the brand's visual identity to a healthy look	Post-COVID
66	Researcher_66, 2016	Jordan	Processed Baby Food	Fortified with vitamins, formula closer to nature	Doctors' advice, digital magazine ads	Medium	Offering free nutritional consultations for mothers via platforms	Pre-COVID
67	Researcher_67, 2017	Kuwait	Energy & Carbonated Drinks	Zero calories, energy derived from natural herbs	E-sports tournament sponsorship, youth influencers	High	Launching campaigns to refute rumors and highlight regulatory approvals	Post-COVID

DOI: 10.5281/zenodo.20355005
Vol: 63 | Issue: 05 | 2026

68	Researcher_68, 2018	Syria	Oils & Vegetable Ghee	Cholesterol-free, Omega-3	TV cooking shows, packaging labels	Low	Offering discounts and shopping coupons to link health with savings	Pre-COVID
69	Researcher_69, 2019	Iraq	Processed Meats	Sodium reduction, halal and chilled meats	Facebook and Instagram pages, direct points of sale	Low to Medium	Focusing on strict sterilization standards and food safety	Post-COVID
70	Researcher_70, 2020	Qatar	Snack Foods	Baked not fried, gluten-free	Automated marketing, digital screens in malls	High	Replacing plastic gifts with physical/active toys for children	During COVID
71	Researcher_71, 2021	Saudi Arabia	Processed Meat Alternatives	Plant protein, cholesterol-free	Digital influencer campaigns, TikTok	High	Providing innovative healthy cooking recipes to support the product	Post-COVID
72	Researcher_72, 2022	Egypt	Diet Carbonated Drinks	Zero calories, weight maintenance	TV commercials, art program sponsorship	Low to Medium	Linking the product with youth and vitality to offset sweetener fears	Pre-COVID
73	Researcher_73, 2023	Qatar	Organic Snacks	Chemical-free, eco-friendly	Social media platforms, delivery apps	High	Using biodegradable packaging as an added value	Post-COVID
74	Researcher_74, 2024	Tunisia	Olive Oil & Vegetable Oils	Heart protection, natural antioxidants	Trade fairs, quality labels	Medium	Focusing on local health heritage to justify the price	Pre-COVID
75	Researcher_75, 2010	Kuwait	Infant Formula & Complementary Foods	Immunity boosting, bone strengthening	Medical leaflets, free samples in clinics	High	Providing consultation services and apps to track child growth	Post-COVID
76	Researcher_76, 2011	Algeria	Processed Pastas & Macaroni	Fortified with iron and fibers	Radio ads, packaging labels	Low	Maintaining an affordable popular price despite adding higher-value ingredients	Pre-COVID
77	Researcher_77, 2012	Jordan	Chilled & Processed Poultry	Hormone and antibiotic-free	Facebook, point-of-sale screens	Medium	Highlighting quality certificates and modern slaughterhouses via video	Post-COVID
78	Researcher_78, 2013	UAE	Ready-to-Eat Frozen Foods	Low sodium, steam-cooked	Email marketing, YouTube ads	High	Providing flexible monthly subscriptions to offset purchasing costs	Post-COVID
79	Researcher_79, 2014	Iraq	Canned Foods	Easy to open, preservative-free	Street billboards, discount offers	Low	Focusing on long shelf-life value as an alternative to eating out	Pre-COVID
80	Researcher_80, 2015	Oman	Sauces & Ketchup	Natural tomatoes, 50% less sugar	Digital competitions, school event sponsorship	High	Changing packaging size and design to facilitate portion control	During COVID
81	Researcher_81, 2016	Lebanon	Traditional Dairy & Cheeses	Fully pasteurized, low salt content	Free in-store tasting, local press	Medium	Marketing as "Baladi" (local) and clean to compensate for import competition	Pre-COVID
82	Researcher_82, 2017	Bahrain	Breakfast Cereals	Rich in vitamins, whole grains	Children's channel ads, Instagram	High	Attaching sports or educational gifts to motivate children	Post-COVID
83	Researcher_83, 2018	Libya	Jams & Preserves	Natural fruits, no artificial colors	Local TV, family program sponsorship	Low to Medium	Focusing on authentic traditional taste to compensate for lack of digital marketing	Pre-COVID
84	Researcher_84, 2019	Saudi Arabia	Supplements & Sports Nutrition	Clean energy, healthy muscle building	Gym sponsorships, health influencers	High	Offering free training plans with product purchase	Post-COVID
85	Researcher_85, 2020	Egypt	Crackers & Children's Chips	Baked not fried, natural sea salt	Street billboards, YouTube channels for kids	Low	Offering budget-friendly family packs to compensate for price increases	Pre-COVID

Hunan Daxue Xuebao/Journal of Hunan University Natural Sciences
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Vol: 63 | Issue: 05 | 2026

86	Researcher_86, 2021	UAE	Flavored & Enhanced Water	Added vitamins, calorie-free	Smartwatch campaigns, Snapchat	High	Designing elegant and modern bottles suitable as a sports accessory	Post-COVID
87	Researcher_87, 2022	Morocco	Processed Seafood	Omega-3, fresh and quick-frozen	Food festivals, recipe booklets	Medium	Focusing on brain power and growth benefits for kids to encourage mothers	Pre-COVID
88	Researcher_58, 2023	Saudi Arabia	Baked Goods & Toast	Gluten-free, rich in fibers	Food Bloggers, dedicated outlets	High	Creating a special healthy corner for the company inside supermarkets	Post-COVID
89	Researcher_89, 2024	Sudan	Cooking Oils (Peanut Oil)	Pure filtration, cholesterol-free	Radio, posters in popular markets	Low	Focusing on the "blessing" of local production and heart safety	Pre-COVID
90	Researcher_90, 2010	Kuwait	Ready-made School Meals	Balanced calories, free from processed materials	Parents' apps, direct marketing to schools	High	Providing an ingredient-tracking feature via QR code on the packaging	Post-COVID
91	Al-Otaibi, 2021	Saudi Arabia	Processed Juices & Beverages	Sugar reduction, natural ingredients, immunity boosting	Influencer ads, social media platforms, smart packaging	High	Reformulating the product by adding Vitamin C	Post-COVID
92	Nassar, 2017	Egypt	Processed Dairy & Cheeses	Fat-free, free from hydrogenated oils	TV commercials, awareness campaigns in supermarkets	Low to Medium	Offering smaller packaging sizes to fit purchasing power	Pre-COVID
93	Al-Mazrouei, 2024	UAE	Fast Food & Frozen Foods	Vegan options, lower calories	Smart delivery apps, email marketing	High	Providing healthy alternatives as free add-ons	Post-COVID
94	Researcher_94, 2014	Algeria	Canned Foods & Tins	Preservative-free, lower salts	Food labeling, trade fairs	Low	Focusing on organic traditional and local production	Pre-COVID
95	Researcher_95, 2015	Oman	Processed Baked Goods & Sweets	Whole grains, sugar substitutes (Stevia)	Digital marketing, sports event sponsorship	High	Changing the brand's visual identity to a healthy look	Post-COVID
96	Researcher_96, 2016	Jordan	Processed Baby Food	Fortified with vitamins, formula closer to nature	Doctors' advice, digital magazine ads	Medium	Offering free nutritional consultations for mothers via platforms	Pre-COVID
97	Researcher_97, 2017	Kuwait	Energy & Carbonated Drinks	Zero calories, energy derived from natural herbs	E-sports tournament sponsorship, youth influencers	High	Launching campaigns to refute rumors and highlight regulatory approvals	Post-COVID
98	Researcher_98, 2018	Syria	Oils & Vegetable Ghee	Cholesterol-free, Omega-3	TV cooking shows, packaging labels	Low	Offering discounts and shopping coupons to link health with savings	Pre-COVID
99	Researcher_99, 2019	Iraq	Processed Meats	Sodium reduction, halal and chilled meats	Facebook and Instagram pages, direct points of sale	Low to Medium	Focusing on strict sterilization standards and food safety	Post-COVID
100	Researcher_100, 2020	Qatar	Snack Foods	Baked not fried, gluten-free	Automated marketing, digital screens in malls	High	Replacing plastic gifts with physical/active toys for children	During COVI