

CONTENTS

- Research on Digital Operation Mechanism of Brand Marketing Under Public-Private Domain Linkage** 1-9

Haimei Ma

- Translating Sustainability into Practice: A Qualitative Study of Managerial Perspectives on ESG Implementation at Unilever** 10-18

Kikomeko Joseph, Ogbe Augustine Alloysius

- Post-Training Follow-Up and Employee Training Transfer: Problems and Improvement Strategies** 19-30

Megan M. Foster

- Problems and Improvement Strategies in Working Time Management for Food Delivery Platform Riders** 31-38

Song Yan

- Research on the Implementation Mechanism of Live-Streaming E-Commerce and Social Media Content Marketing for DTC Brands — From the Perspective of Media Affordances and Multi-Stage Conversion Chain** 39-48

Meiying Jin

Research on Digital Operation Mechanism of Brand Marketing Under Public-Private Domain Linkage

Haimei Ma¹

¹ Shenzhen ATS Electronics Tech Co., Ltd., Shenzhen 518000, China

Correspondence: Haimei Ma, Shenzhen ATS Electronics Tech Co., Ltd., Shenzhen 518000, China.

doi:10.63593/FMS.2788-8592.2026.07.001

Abstract

The iteration of digital media has reconstructed the logic of marketing traffic. The customer acquisition cost in the public domain keeps rising, while the value of private-domain assets is increasing. The two-way linkage between public and private domains has become a critical path for brands' digital transformation. Nevertheless, most enterprises only realize one-way traffic diversion from the public domain to the private domain without building a complete closed-loop system. Existing studies mostly focus on single channels and lack systematic quantitative analysis of linkage transmission mechanisms, boundary conditions and implementation paths (Naik P A & Peters K., 2009). Based on resource dependence theory, value co-creation theory and closed-loop system theory, this paper adopts grounded theory, PLS-SEM and fsQCA methods and conducts empirical research with 287 consumer-service brands as samples. The results show that the five dimensions of public-private domain linkage positively improve marketing performance; user perceived value-brand identification plays a chain-mediating role; technological, organizational and competitive environments exert moderating effects. There exist three equivalent configurations for high-performance outcomes: diversion-oriented, technology-empowered and private-domain-deep-cultivation. This study clarifies the closed-loop linkage mechanism and provides theoretical and practical references for enterprises' marketing resource allocation.

Keywords: public-private domain linkage, digital marketing, operation mechanism, fsQCA, PLS-SEM, value closed-loop, chain mediation, configuration path

1. Introduction

1.1 Research Background

The digital economy has reshaped the brand marketing ecosystem, and the drawbacks of traditional public-domain traffic marketing have become increasingly prominent. From 2023 to 2025, the customer acquisition cost per thousand exposures on mainstream domestic public-domain platforms rose from ¥186.2 to ¥274.7 (Batra R & Keller K L., 2016). The dividend of public-domain traffic is fading and marketing cost-effectiveness keeps declining. The private domain enables enterprises to precipitate user assets at low cost, yet standalone private-domain operation suffers drawbacks including insufficient new customers, community solidification and insufficient brand influence. At present, public-domain and private-domain operations of most domestic brands are fragmented, with only one-way traffic diversion achieved instead of a value closed-loop. 61.4% of linkage marketing projects fail to meet expectations (Ragin C C., 2008). Accordingly, constructing a digital operation mechanism with two-way public-private domain linkage serves as the key for brands' digital transformation and long-term growth.

1.2 Research Status

Existing domestic and international research on digital marketing and public-private domain operations has formed a fundamental system. Foreign studies emphasize theoretical modeling and quantitative empirical tests, verifying

the positive effect of public-private domain synergy on marketing performance with solid theoretical support. Domestic research concentrates on practical strategies for local single-scenario operations and offers practical references, yet generally suffers fragmented research perspectives and insufficient theoretical integration. Systematic empirical exploration on the two-way linkage mechanism between public and private domains remains insufficient.

1.3 Research Objectives

Considering existing research gaps and industrial practical pain points, this paper defines core research objectives as follows:

- To systematically deconstruct core dimensions and internal operating logic of public-private domain linkage and define core components of brands' digital marketing operation mechanism;
- To empirically test transmission paths, mediating mechanisms and moderating boundaries of how public-private domain linkage affects brand marketing performance via quantitative methods, unlocking the "mechanism black box" of linkage operations;
- To identify multiple configuration paths for brands' high-level digital marketing performance and analyze practical dilemmas of enterprises' linkage operations;
- To propose differentiated implementation strategies based on empirical conclusions, providing theoretical support and practical guidance for various brands to optimize public-private domain linkage systems and improve marketing performance.

1.4 Academic Innovations

This paper's academic innovations are reflected in three aspects.

- 1) **Theoretical perspective innovation:** Breaking the research paradigm that separates public domain from private domain, constructing a two-way closed-loop linkage theoretical framework, improving the digital marketing system and expanding the application boundary of basic theories in relevant scenarios.
- 2) **Research method innovation:** Integrating grounded theory, PLS-SEM and fsQCA mixed paradigms, examining both net effects and configurations, and overcoming the limitation of single methods in analyzing complex causality.
- 3) **Research content innovation:** Introducing chain mediators and multi-layer moderating variables to clarify linkage transmission mechanisms and boundary conditions, taking heterogeneity characteristics into account and filling the homogeneity gap in existing research.

2. Concept Definition and Theoretical Foundation

2.1 Definition of Core Concepts

Public-private domain linkage: Different from one-way traffic diversion, it refers to a collaborative operation system where enterprises realize two-way cyclic collaboration of traffic, content, users, data and word-of-mouth value between public and private domains via digital media. It includes five sub-dimensions: precise public-domain diversion, public-private domain content synergy, cross-domain user migration and conversion, in-depth private-domain value mining, and reverse reflux of private-domain value to the public domain. Linkage performance covers business revenue growth, user-asset appreciation and improvement of external brand influence.

Brand digital marketing performance: Rather than a single revenue indicator, it is measured by a multi-dimensional composite indicator $Perf$ with the calculation formula below:

$$Perf = \omega_1 R_{flow} + \omega_2 R_{asset} + \omega_3 R_{brand} + \omega_4 R_{profit}$$

Where: R_{flow} denotes traffic conversion performance; R_{asset} denotes private-domain user-asset performance; R_{brand} denotes brand influence performance; R_{profit} denotes marketing business performance; $\omega_1, \omega_2, \omega_3, \omega_4$ represent weights of each dimension, which are objectively calculated from sample data through the entropy weight method.

Digital operation mechanism: It consists of four sub-modules: driving mechanism, operational transmission mechanism, guarantee-moderating mechanism and feedback-iteration mechanism, fully depicting the interaction among external environments, internal organizational conditions and user behaviors.

2.2 Analysis of Basic Theories

To clarify the internal operating logic of public-private domain linkage, this section interprets resource dependence theory, value co-creation theory and closed-loop system theory, laying a foundation for subsequent model construction and research hypothesis formulation.

- 1) **Resource dependence theory:** Enterprises cannot generate all marketing resources internally. Public-domain channels provide external traffic and exposure resources, while private-domain channels realize internal precipitation of user resources. Complementary resource exchange is formed between public and private domains, and the quality of two-way resource flow directly determines the operational efficiency of the marketing system.
- 2) **Value co-creation theory:** Brand information exposure and grass-roots marketing are completed in public-domain scenarios, while in-depth interaction and value co-creation between enterprises and users take place in private-domain scenarios. User-generated word-of-mouth, reviews and UGC content reflux to public-domain platforms again to achieve secondary value amplification. Users are no longer passive information recipients but participants in value co-creation.
- 3) **Closed-loop system theory:** Public-private domain linkage is regarded as a negative-feedback closed-loop system. Marketing performance outputs serve as feedback signals to adjust diversion strategies, content strategies and private-domain operation strategies reversely. The system evolves dynamically instead of functioning as a static one-off conversion process.

2.3 Descriptive Statistics of Variable Dimensions

Table 1. Descriptive Statistics of Public-Private Domain Linkage Dimensions (N=287)

Variable Dimension	Mean	Standard Deviation	Minimum	Maximum	Number of Items
Precise public-domain diversion	4.82	0.81	1.70	6.90	4
Public-private domain content synergy	4.37	0.94	1.20	6.80	4
Cross-domain user migration and conversion	4.51	0.87	1.50	6.90	3
In-depth private-domain value mining	4.44	0.89	1.30	6.80	4
Reverse reflux of private-domain value	3.96	1.02	1.00	6.70	3

Combined with descriptive statistics results of public-private domain linkage dimensions in Table 1, characteristics of sample data and industrial status are summarized as follows:

- 1) **Overall operational characteristics:** The overall public-private domain linkage of sample brands is at a medium-to-upper level. Yet development across dimensions is unbalanced with prominent maturity gaps. A mature two-way closed-loop operation system has not been formed, presenting an industrial feature dominated by one-way operations.
- 2) **Significant mean differences:** Precise public-domain diversion achieves the highest mean value (4.82), with mature and widely-adopted industrial operation systems. Cross-domain user migration and conversion (4.51), in-depth private-domain value mining (4.44) and public-private domain content synergy (4.37) stay at intermediate levels, with obvious weaknesses in content synergy. Reverse reflux of private-domain value only reaches 3.96, constituting the core weak point. Most enterprises lack a value-reflux closed-loop.
- 3) **Distinct data stability differences:** The standard deviation of reverse reflux of private-domain value hits 1.02 with the highest data dispersion, indicating huge gaps in operational capacity among brands and severe industrial polarization. Precise public-domain diversion has a standard deviation of merely 0.81 with low data fluctuation, reflecting unified and stable overall industrial performance.
- 4) **Sound sample quality:** Reasonable extreme-value ranges across dimensions demonstrate no abnormal samples. Survey data is authentic and reliable, objectively reflecting typical industrial status of domestic brands: strong public-domain diversion, weak two-way synergy and absent value reflux.

3. Construct Extraction and Research Hypotheses Based on Grounded Theory

3.1 Description of Case and Data Collection

This study selects 8 sample brands covering fast-moving consumer goods, durable consumer goods and life-service

industries, including small-and-medium-sized as well as large-and-medium-sized enterprises. Data sources include semi-structured in-depth interviews, corporate public operation materials and third-party industrial reports. Triangulation is adopted to reduce bias from single data sources. Twenty-six marketing executives are interviewed, with each interview lasting 45-75 minutes. Transcribed interview texts total 127,000 words. Open coding, axial coding and selective coding are carried out sequentially. Theoretical saturation test is completed and no new categories emerge, proving sample data meets research requirements.

Main categories extracted via coding include: five linkage dimensions (independent variables), user perceived value and brand identification (chain mediators); digital technical capability, organizational collaboration level and market competition intensity (moderating variables); brand digital marketing performance (dependent variable); enterprise scale, industry type and digital operation years (control variables).

3.2 Deduction of Research Hypotheses

Main-effect hypotheses are proposed based on grounded coding results and fundamental theories:

H1: Each dimension of public-private domain linkage exerts a significant positive impact on brand digital marketing performance.

Chain-mediation hypotheses:

H2: User perceived value mediates the relationship between public-private domain linkage and brand identification.

H3: Brand identification mediates the relationship between user perceived value and brand digital marketing performance.

H4: User perceived value-brand identification exerts a chain-mediating effect between public-private domain linkage and marketing performance.

Moderation-effect hypotheses:

H5: Digital technical capability positively moderates the path from public-private domain linkage to user perceived value; the positive effect becomes stronger with higher digital technical capability.

H6: Organizational collaboration level positively moderates the path from public-private domain linkage to user perceived value.

H7: Market competition intensity negatively moderates the conversion path from public-private domain linkage to marketing performance; performance gains brought by linkage are weakened under fiercer market competition.

3.3 Conceptual Model

Overall logical path: Public-private domain linkage (5 dimensions) → user perceived value → brand identification → brand digital marketing performance. Digital technical capability and organizational collaboration level moderate the former-stage path; market competition intensity moderates the latter-stage path. Enterprise scale, industry type and digital operation years are introduced as control variables.

4. Questionnaire Design, Data Collection and Reliability-Validity Test

4.1 Scale Design and Pre-Survey

Scale items are adapted from mature domestic and foreign scales combined with localized constructs obtained from grounded theory. All items adopt 7-point Likert scale, where 1 stands for “strongly disagree” and 7 stands for “strongly agree”. Sixty-two valid samples are collected in the pre-survey. Item analysis is conducted and two items with CITC lower than 0.4 are deleted for questionnaire revision. The formal survey targets domestic marketing practitioners. A total of 341 questionnaires are distributed. Invalid questionnaires with overly short filling time or identical answers are eliminated, and 287 valid samples are finally obtained with an effective response rate of 84.16%.

4.2 Profile of Sample Enterprises

Table 2. Distribution of Valid Sample Enterprises (N=287)

Category	Classification	Sample Size	Percentage (%)
Enterprise Scale	Small-and-medium-sized enterprises	162	56.45
Enterprise Scale	Large-and-medium-sized enterprises	125	43.55
Industry	Fast-moving consumer goods	134	46.69
Industry	Durable-goods and service industries	153	53.31

Category	Classification	Sample Size	Percentage (%)
Years of Digital Operation	Within 3 years	118	41.11
Years of Digital Operation	More than 3 years	169	58.89

4.3 Reliability, Validity and Common-Method Bias Test

Reliability indicators adopt Cronbach's α coefficient and composite reliability (CR); convergent validity is measured by average variance extracted (AVE); discriminant validity requires that the square root of each variable's AVE exceeds correlation coefficients between variables.

Table 3. Reliability and Convergent Validity of Major Variables

Variable	Cronbach's α	CR	AVE
Public-private domain linkage	0.872	0.894	0.527
User perceived value	0.841	0.866	0.563
Brand identification	0.826	0.851	0.534
Digital technical capability	0.833	0.858	0.547
Brand digital marketing performance	0.864	0.881	0.519

All variables satisfy Cronbach's $\alpha > 0.8$, $CR > 0.8$ and $AVE > 0.5$, meeting reliability and convergent validity criteria of the questionnaire. Harman's single-factor test is applied to detect common-method bias. The variance interpretation ratio of the first unrotated common factor is 28.37%, lower than the critical threshold of 40%, so common-method bias is acceptable. From the perspective of reliability indicators, Cronbach's α coefficients of all variables range from 0.826-0.872, and CR values fall within 0.851-0.894, all higher than the ideal critical standard of 0.8. This demonstrates favorable internal consistency of measurement items for each latent variable and qualified scale reliability.

In terms of convergent validity, AVE values of all variables range from 0.519-0.563, all exceeding the evaluation threshold of 0.5. It indicates that items effectively correspond to their respective latent variables and convergent validity meets research requirements. Collectively, the questionnaire scale possesses sound reliability and convergent validity for subsequent hypothesis testing.

5. Empirical Result Analysis of PLS-SEM Model

5.1 Descriptive Statistics and Correlation Coefficients

Correlation coefficients among core variables are significantly positive, preliminarily consistent with directions of main-effect hypotheses. Variance inflation factor (VIF) values of all variables are less than 3.5, suggesting no severe multicollinearity.

5.2 Structural Model Path Test

Bootstrap resampling with 5000 iterations is adopted for significance test. Model $R^2 = 0.613$, meaning this model can explain 61.3% of variance in brand digital marketing performance with favorable explanatory power.

Table 4. Test Results of Main Effects and Mediating Effects

Path Relationship	Path Coefficient	T-value	P-value	Hypothesis Result
Public-private domain linkage $\rightarrow$ Marketing performance	0.427	7.134	0.000	H1 Supported
Public-private domain linkage $\rightarrow$ User perceived value	0.514	8.627	0.000	Precondition of H2 Supported
User perceived value $\rightarrow$ Brand identification	0.482	7.841	0.000	H2 Supported
Brand identification $\rightarrow$ Marketing performance	0.316	5.462	0.000	H3 Supported
Chain mediation: Linkage-Perceived Value-Identification-Performance	0.078	4.726	0.000	H4 Supported

The chain-mediation effect value is 0.078, accounting for 21.43% of the total effect. It proves that besides directly improving marketing performance, public-private domain linkage also indirectly promotes marketing outputs through the chain transmission path of “user perceived value-brand identification”.

Moderation-effect results show that the moderating coefficient of digital technical capability is 0.183 ($p < 0.01$), supporting H5; the moderating coefficient of organizational collaboration level is 0.147 ($p < 0.05$), supporting H6; the moderating coefficient of market competition intensity is -0.121 ($p < 0.05$), supporting H7. When enterprises' digital technical capability and organizational collaboration level remain low, performance improvement brought by public-private domain linkage will be significantly restricted. In fiercely-competitive external markets, competitive advantages generated by linkage will be partially diluted.

6. Configuration Path Analysis via fsQCA

Regression models can only test net effects of variables, while fsQCA identifies equivalent paths of multi-condition combinations, which better conforms to complex causality in marketing practice. Independent variables, mediators and moderators are taken as antecedent conditions, and high brand digital marketing performance serves as the outcome variable. Variables are calibrated according to sample quartiles.

6.1 Necessary-Condition Analysis

Necessary-condition analysis is conducted via fsQCA, with consistency as the core criterion for judging necessary conditions. Generally, 0.9 is set as the threshold for necessary-condition judgment.

- 1) Necessary-condition tests are performed on each antecedent condition. Results show consistency values of all single antecedent conditions range from 0.542-0.817, all lower than the judgment threshold of 0.9. It indicates that none of the identified conditions can independently constitute a necessary condition for high digital marketing performance.
- 2) This result demonstrates that no single factor can directly realize enterprises' high marketing performance. Any isolated condition including public-domain diversion, private-domain operation, technical capability or organizational collaboration can hardly achieve satisfactory marketing outputs stably. High marketing performance requires mutual matching and coordinated collaboration of multiple antecedent conditions.
- 3) Coverage values of antecedent conditions range from 0.486-0.731, further verifying limited explanatory power of single conditions for outcome variables and their incapability to independently support high-performance realization.

6.2 Sufficient-Condition Configuration Results

Table 5. Driving Configurations for High Brand Digital Marketing Performance

Condition	Configuration 1 Diversion-Oriented	Configuration 2 Technology-Empowered	Configuration 3 Private-Domain-Deep-Cultivation
Public-private domain linkage	●	●	●
User perceived value	●	⊗	●
Brand identification	●	●	●
Digital technical capability	⊗	●	⊗
Organizational collaboration level	●	●	⊗
Consistency	0.842	0.817	0.831
Coverage	0.314	0.276	0.248

Note: ● represents condition presence; ⊗ represents condition absence.

Configuration 1: Diversion-Oriented: High performance is achieved relying on public-domain diversion capacity and internal organizational collaboration advantages, with relatively low requirements for digital hardware-technical capability. It applies to enterprises with marketing talent advantages yet weak technical foundations.

Configuration 2: Technology-Empowered: Supported by robust digital technical infrastructure and organizational collaboration, high marketing performance can be realized even with mediocre user perceived

value. It suits large-and-medium-sized brands with sufficient technical reserves.

Configuration 3: Private-Domain-Deep-Cultivation: In-depth exploitation of private-domain user value drives performance through user perceived value and brand identification, with low dependence on large-scale public-domain investment. It fits vertical-segment brands with limited budgets. Meanwhile, non-high-performance configuration results indicate that satisfactory marketing outputs can hardly be achieved under any combination of other conditions in the absence of public-private domain linkage.

7. Comprehensive Digital Mechanism and Practical Dilemmas of Public-Private Domain Linkage

7.1 Integration of Complete Operation Mechanism

Combining qualitative grounded-theory and quantitative empirical results, a complete digital operation mechanism for public-private domain linkage is constructed, covering four sub-mechanisms.

- 1) **Driving mechanism:** External drivers include rising external traffic costs and changes in consumers' cross-platform behavioral habits. Internal drivers are enterprises' pursuit of user-asset precipitation and higher marketing ROI. Joint forces from three dimensions push enterprises to implement public-private domain linkage transformation.
- 2) **Operational transmission mechanism:** It follows the closed-loop path: Precise public-domain grass-roots marketing & diversion → cross-domain user migration → private-domain scenario interaction → improvement of user perceived value → formation of brand identification → generation of user UGC word-of-mouth → reflux of private-domain value to the public domain. Chain mediators, namely user perceived value and brand identification, act as core pivots of the whole transmission path. Without established user perceived value, traffic migration merely achieves user information precipitation and cannot be transformed into business outcomes.
- 3) **Guarantee-moderating mechanism:** Digital technical capability and organizational collaboration level serve as positive guarantee conditions to amplify operational efficiency of the linkage system. Market competition intensity acts as an external constraint condition; intensified competition weakens performance dividends brought by linkage.
- 4) **Feedback-iteration mechanism:** Marketing performance outputs function as feedback signals to reversely iterate public-domain investment strategies, public-private domain content systems and private-domain operation rhythms, forming a dynamic cyclic system rather than static one-off marketing activities.

7.2 Major Practical Dilemmas for Enterprises

Enterprises generally face multiple practical dilemmas in public-private domain linkage operations:

- **Cognitive level:** Most enterprises confuse one-way traffic diversion with two-way closed-loop linkage and ignore the key link of private-domain UGC word-of-mouth reflux to the public domain. Sample data shows 57.8% of enterprises have not established standardized operation procedures for private-domain word-of-mouth reflux to public domains.
- **Organizational level:** Public-domain and private-domain businesses belong to separate departments with fragmented KPI assessment systems. Public-domain teams focus on exposure and customer acquisition while private-domain teams emphasize user repurchase. Unified linkage assessment mechanisms are absent, generating inter-departmental collaboration barriers.
- **Data and user-operation level:** Low integration of public-private domain data creates prominent data silos. Full-link user behavioral data is disconnected, hindering construction of complete user profiles. After cross-domain user migration, some enterprises conduct excessive marketing and frequent push notifications, triggering user resentment. Negative private-domain word-of-mouth further backfires on public-domain brand image.
- **Resource level:** Small-and-medium-sized enterprises suffer insufficient digital budgets and shortage of specialized talents, making it impossible to implement full-set linkage systems. Blind imitation of mature models from leading enterprises easily causes resource waste and imbalanced input-output ratios.

7.3 Brief Analysis of Industrial Heterogeneity

Combined with the three high-performance configuration paths mentioned above, brands with different industry attributes and enterprise scales show significant heterogeneity in public-private domain linkage operations, with differentiated resource-adaptation paths and core operational priorities. Specific differentiated characteristics are as follows:

- 1) **Fast-moving consumer goods industry:** Fast-moving consumer goods feature high consumption frequency,

rapid user turnover and low decision-making thresholds with an average repurchase cycle of 1-3 months. It is more suitable for Configuration 1 (Diversion-Oriented). Large-scale customer acquisition is realized via public-domain grass-roots marketing, matched with high-frequency content to complete public-private domain traffic circulation. Private-domain UGC reflux to public domains can rapidly amplify brand influence and effectively improve market penetration.

- 2) **Durable-goods and service industries:** For durable-goods and service industries, users face a 6-12-month decision-making cycle, high unit price and low consumption frequency. Short-term public-domain conversion effects are limited. Configuration 3 (Private-Domain-Deep-Cultivation) is applicable. Long-term private-domain interaction precipitates word-of-mouth and strengthens user perceived value and brand identification. Private-domain precipitation contributes 27.3% more to performance than public-domain diversion.
- 3) **Small-and-medium-sized enterprises:** Statistics show 56.45% of small-and-medium-sized enterprises have limited digital budgets and insufficient technical & talent reserves, incapable of supporting full-scale linkage operations. It is recommended to prioritize Configuration 3 (Private-Domain-Deep-Cultivation), concentrate resources on maintaining core stock users and adopt lightweight refined operations to avoid resource dispersion and low input-output ratios.
- 4) **Large-and-medium-sized enterprises:** Large-and-medium-sized enterprises possess adequate resource reserves. 58.89% of sample enterprises have more than 3 years of digital operation experience, adapting to Configuration 2 (Technology-Empowered). Full-domain digital infrastructure is built to break public-private domain data barriers and realize closed-loop cycles of traffic, content and user value, fully releasing marketing benefits brought by public-private domain synergy.

8. Research Conclusions, Managerial Implications, Limitations and Prospects

8.1 Main Research Conclusions

Based on empirical analysis and configuration test results, main research conclusions concerning how public-private domain linkage influences brand digital marketing performance are summarized as follows:

First, public-private domain linkage consists of five dimensions: precise public-domain diversion, public-private domain content synergy, cross-domain user migration and conversion, in-depth private-domain value mining, and reverse reflux of private-domain value. All five dimensions positively and significantly improve brand digital marketing performance, among which reverse reflux of private-domain value constitutes a common weakness for domestic enterprises.

Second, public-private domain linkage generates both direct performance effects and indirect chain-mediation effects via “user perceived value-brand identification”. Linkage cannot directly produce business results; value transformation must be realized through users’ subjective perception and brand identification.

Third, digital technical capability and organizational collaboration level exert positive moderating effects, while market competition intensity plays a negative moderating role in conversion outcomes. Effects of linkage systems highly depend on supporting internal corporate conditions.

Fourth, multiple equivalent configurations exist for high digital marketing performance, namely diversion-oriented, technology-empowered and private-domain-deep-cultivation paths. Enterprises do not need to replicate unified templates and can select suitable implementation paths according to their own resource endowments.

8.2 Managerial and Practical Implications

Combined with foregoing research findings, multi-dimensional practical implications for enterprises’ public-private domain linkage operations are extracted to optimize marketing systems, avoid operational drawbacks and implement sustainable public-private domain collaborative marketing modes.

- 1) **Strategic level:** Enterprises should abandon the one-sided cognition that equates public-private domain linkage with public-domain traffic diversion, establish two-way closed-loop value-cycle thinking, incorporate private-domain UGC reflux to public domains into overall marketing assessment frameworks and make up for deficiencies in the reflux link.
- 2) **Operational level:** Attention should be paid not merely to traffic-migration quantity but also to construction of user perceived value. Importing traffic into private domains does not equal completed operations. Services and content interaction should be utilized to build user perceived value, preventing private domains from degenerating into simple message-push channels.
- 3) **Organizational and technical level:** Public-private domain data links should be connected, and cross-domain collaborative assessment indicators should be formulated to eliminate inter-departmental KPI

barriers. Small-and-medium-sized enterprises need not blindly invest in full-set digital systems. They may prioritize private-domain-deep-cultivation paths and concentrate resources on core user groups.

- 4) **Risk-control level:** Early-warning mechanisms for public-private domain linkage risks should be established to monitor negative feedback from private-domain users and prevent excessive private-domain marketing from backfiring on public-domain brand image.

8.3 Research Limitations

This study conducts empirical analysis with cross-sectional questionnaire data, which can only capture static correlations among variables at specific time points. It cannot fully depict long-term dynamic evolution of public-private domain linkage modes amid market changes, and fails to track and verify lagged effects and iterative changes of variables over time. Meanwhile, survey samples mainly focus on domestic consumer-service brands, with limited samples from manufacturing and other industries. Coverage across industries can be further expanded.

8.4 Future Research Prospects

Future research can be expanded from multiple dimensions based on existing limitations. First, longitudinal panel data can be collected to dynamically explore phased-evolution characteristics and long-term iteration rules of public-private domain linkage systems, making up for the defect that cross-sectional data cannot reflect dynamic trends. Second, further research can explore impacts and moderating effects of iterative internet-platform algorithm rules and traffic-allocation mechanism changes on brands' public-private domain linkage operations. In addition, studies can focus on special scenarios such as market crises and public-opinion fluctuations to explore brand-resilience empowerment mechanisms of public-private domain linkage. Heterogeneity comparison research on brands of different regions, industries and scales can also be refined.

References

- Batra R, Keller K L. (2016). Integrated marketing communications: New findings, new lessons, and new ideas. *Journal of Marketing*, 80(6), 1-17. <https://doi.org/10.1509/jm.14.0235>
- Naik P A, Peters K. (2009). Strategic marketing synergy: A framework for integrated marketing communications. *Journal of Marketing Research*, 46(4), 515-531. <https://doi.org/10.1509/jmkr.46.4.515>
- Ragin C C. (2008). *Redesigning Social Inquiry: Fuzzy Sets and Beyond*. Chicago: University of Chicago Press, 45-92.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

Translating Sustainability into Practice: A Qualitative Study of Managerial Perspectives on ESG Implementation at Unilever

Kikomeko Joseph¹ & Ogbe Augustine Alloysius, PhD¹

¹ School of Graduate Studies, Muteesa I Royal University (MRU), Kampala, Uganda

Correspondence: Kikomeko Joseph, School of Graduate Studies, Muteesa I Royal University (MRU), Kampala, Uganda.

doi:10.63593/FMS.2788-8592.2026.07.002

Abstract

This qualitative study examines the managerial perspectives on the implementation of Environmental, Social, and Governance (ESG) frameworks within Unilever, with a particular emphasis on the Ugandan operational context. The primary objective was to investigate the strategies, challenges, and operational impacts of translating global sustainability mandates into local practice. Guided by Stakeholder Theory, the study employed a qualitative case study design. Data were collected through semi-structured interviews with 12 key managers and supplemented by documentary analysis of sustainability reports. The findings suggest that while Unilever has robust top-down strategies, implementation encounters substantial impediments including supply chain complexity, infrastructural deficits in Uganda, and cost-benefit misalignment. The study posits that successful ESG translation may necessitate contextual adaptation rather than mere replication of global models. Consequently, this study suggests that multinational corporations (MNCs) fortify local stakeholder engagement, promote the development of supportive regulatory frameworks, and thereby bridge the extant implementation gap.

Keywords: ESG implementation, sustainability, managerial perspectives, Unilever, stakeholder theory, Uganda

1. Introduction and Background of the Study

The concept of sustainability in corporate strategy has evolved significantly over the last half-century. What began as a philanthropic endeavor in the 1950s, often termed Corporate Social Responsibility (CSR), has morphed into a strategic imperative known as Environmental, Social, and Governance (ESG) (Eccles & Viviers, 2011). The historical trajectory of this shift is rooted in the realization that industrial growth has negative externalities on the environment and society. The publication of the Brundtland Report in 1987, which defined sustainable development as “meeting the needs of the present without compromising the ability of future generations to meet their own needs,” marked a pivotal turning point (Brundtland et al., 1987). Throughout the 1990s and early 2000s, frameworks such as the Global Reporting Initiative (GRI) further standardized how corporations approach sustainability (Klettner et al., 2013). In recent years, the focus has shifted from voluntary reporting to mandatory disclosures and the integration of ESG factors into financial analysis, driven by investor pressure and climate risks (Serafeim, 2020).

In the contemporary business landscape, ESG is no longer a niche interest but a fundamental component of corporate management. Multinational corporations (MNCs) like Unilever have positioned themselves at the forefront of this transition. Unilever’s “Sustainable Living Plan,” launched in 2010, was one of the most ambitious corporate strategies to decouple business growth from environmental impact while increasing positive social impact (Unilever, 2010). However, the translation of these high-level global strategies into local operational realities, particularly in developing markets, remains a complex managerial challenge. The context of this paper is the tension between global corporate sustainability mandates and the local operational constraints in

emerging economies, where institutional voids and resource scarcity often impede seamless implementation (Khanna & Palepu, 2010). This study focuses on Unilever Uganda, a subsidiary operating in a market characterized by unique socio-economic and environmental challenges, to understand how managers navigate these complexities.

Current issues in ESG implementation revolve around the “execution gap.” While corporations excel at setting targets (e.g., net-zero carbon by 2030), the practicalities of achieving these targets are fraught with difficulties. Issues such as greenwashing, data inconsistency, and the lack of standardized metrics plague the field (Mahoney et al., 2013). Furthermore, in developing countries, the lack of waste management infrastructure and energy insecurity complicates environmental initiatives (Visser, 2016). The importance of this study stems from its move beyond the rhetoric of sustainability reports to examine the lived experiences of managers tasked with implementation. Understanding these perspectives is critical for identifying friction points in corporate strategy. To justify key concepts, this study defines ESG not merely as a compliance tool but as a value-creation mechanism that balances the triple bottom line: Profit, People, and Planet (Elkington, 1998). It also justifies “Managerial Perspectives” as a critical focal point because managers are the agents who interpret, adapt, and execute corporate strategy within specific local constraints (Bansal & Roth, 2000).

1.1 Problem Statement

It is widely established that the integration of Environmental, Social, and Governance (ESG) criteria into business operations enhances long-term corporate value, mitigates risk, and improves brand reputation (Eccles et al., 2014). Past studies have extensively documented the benefits of ESG adoption, highlighting its correlation with better financial performance and lower cost of capital (Friede et al., 2015). Furthermore, global corporations like Unilever have been lauded for their pioneering sustainability frameworks, serving as benchmarks for the industry (Christopher & Nadya, 2011).

However, a significant problem remains: the disparity between corporate ESG commitments and actual on-ground implementation, particularly in developing markets. While the headquarters sets ambitious targets, local subsidiaries often struggle to translate these into practice due to infrastructural deficits, regulatory inconsistencies, and differing stakeholder priorities (Adeyeye et al., 2021). Previous studies have predominantly focused on ESG reporting and quantitative performance metrics in developed economies (Eccles et al., 2014). There is a scarcity of qualitative research that delves into the process of implementation, specifically the “how” and “why” behind the successes and failures as perceived by middle and senior managers in emerging markets like Uganda. Moreover, existing literature often treats ESG as a monolithic entity, failing to distinguish between the unique challenges of Environmental (e.g., waste management), Social (e.g., labor rights), and Governance (e.g., anti-bribery) pillars in the African context (Krause et al., 2023).

This gap necessitates the current research. Without understanding the practical bottlenecks faced by managers, global sustainability strategies risk becoming performative rather than transformative. This study seeks to address this by exploring the managerial perspectives on ESG implementation at Unilever Uganda, providing a solution-oriented analysis that bridges the divide between global theory and local practice.

1.2 Purpose of the Paper

The purpose of this study is to explore the managerial perspectives on the strategies, challenges, and operational impacts of implementing Environmental, Social, and Governance (ESG) frameworks at Unilever Uganda.

1.3 Research Objectives

The following specific objectives guide this study:

- 1) To assess the strategies employed by Unilever Uganda to implement ESG initiatives.
- 2) To examine the challenges managers encounter when translating ESG policies into operational practice.
- 3) To evaluate the impact of ESG implementation on the organizational performance and corporate image of Unilever Uganda.

1.4 Research Questions

This study intended to respond to the following research questions:

- 1) What strategies are employed by Unilever Uganda to implement ESG initiatives?
- 2) What challenges do managers encounter when translating ESG policies into operational practice?
- 3) How does the implementation of ESG impact the organizational performance and corporate image of Unilever Uganda?

1.5 Significance of the Study

This study may offer insights beneficial to the following stakeholders:

- 1) Academics: It contributes to the body of knowledge by providing empirical qualitative data on ESG implementation in Sub-Saharan Africa, a region often underrepresented in sustainability literature. It enriches the discourse on the micro-foundations of corporate sustainability.
- 2) Practitioners/Industry: The findings may offer managers insights into best practices and common pitfalls inherent in the execution of sustainability strategies, thereby facilitating a more effective resource allocation and strategic planning within emerging markets.
- 3) Policymakers: The study is anticipated to delineate the regulatory and infrastructural barriers that impede private sector sustainability, thereby assisting government bodies in the design of more supportive policies and incentives.
- 4) Society: By exploring the “Social” pillar of ESG, the study could elucidate the influence of corporate actions on community welfare and environmental health, thereby fostering greater accountability toward society.

1.6 Scope of the Study

- 1) Location: The study was conducted at the Unilever Uganda headquarters and its key distribution sites in and around Kampala.
- 2) Population: The study population included managers from the Supply Chain, Human Resources, Finance, and Sustainability departments.
- 3) Variables: The key variables were ESG Strategies (independent variable), Implementation Challenges (mediating variable), and Organizational Performance (dependent variable).
- 4) Timeframe: The study focused on ESG activities and reports from the year 2019 to 2024.
- 5) Limitations: The study was limited by the subjective nature of qualitative data, which reflects the personal biases of the interviewees. Additionally, access to sensitive financial data related to ESG costs was restricted.

1.7 Theory of the Study

The study is grounded in Stakeholder Theory, originally propounded by R. Edward Freeman in 1984. Stakeholder Theory posits that organizations are not merely entities that exist to maximize shareholder value but are rather coalitions of various interests, including employees, customers, suppliers, communities, and financiers (Freeman, 1984). The theory argues that for a business to be sustainable in the long term, it must create value for all its stakeholders, not just shareholders.

The justification for choosing this theory lies in its direct alignment with the ESG framework. ESG is essentially the operationalization of Stakeholder Theory; the ‘Environmental’ and ‘Social’ pillars address the needs of the community and environment, while ‘Governance’ addresses the ethical management of stakeholder relationships (Jensen, 2001). In the context of this study, Stakeholder Theory explains why Unilever managers are pressured to adopt sustainability—balancing the demands of global headquarters (shareholders), local regulators (government), and the Ugandan community (society).

Regarding the present discourse, the theory facilitates the analysis of the prioritization by managers of disparate stakeholder demands during periods of resource scarcity. For instance, managers may be compelled to select between a financially substantial waste recycling initiative (benefiting communal and ecological interests) and immediate profit maximization targets (benefiting shareholder interests). Stakeholder Theory, therefore, offers a conceptual framework for comprehending these inherent trade-offs and the subsequent operationalization of sustainability within organizational praxis.

2. Literature Review

Variable 1: ESG Strategies

ESG strategies may be delineated as the comprehensive undertaking of policies and actions by an organization to manage its environmental and societal impacts, alongside its governance structures. Within the pertinent literature, their evolution from a paradigm of risk mitigation to one of value generation is discernible. Porter and Kramer (2011) introduced the concept of “Creating Shared Value” (CSV), postulating that organizations are capable of generating economic value through the identification and subsequent amelioration of societal challenges pertinent to their operational scope. This conceptualization is exemplified by Unilever’s global strategy, which prioritizes health and hygiene, the reduction of its environmental footprint, and the enhancement of livelihoods (Krishnamoorthy, 2021).

Empirical investigations suggest that leading multinational corporations (MNCs) often implement strategies, including, but not limited to, circular economy models, green supply chain management, and sustainable

sourcing (Abdul-Azeez et al., 2024). For example, Genovese et al. (2017) posit that circular economy concepts facilitate the minimization of waste through the prolonged utilization of products and materials, thereby precluding their premature designation as refuse, a process that aligns demonstrably with the principles of ESG integration (Calzolari et al., 2021). Within the African context, the implementation of such strategies often entails the adaptation of global standards to specific local contextualities (Nandan & Sinku, 2024). A study by Boiral et al. (2018) observed that, in developing countries, ESG strategies frequently prioritize fundamental societal requirements (e.g., water, sanitation) over advanced technological environmental solutions, primarily attributable to extant infrastructural deficiencies.

However, whilst the extant literature abounds with delineations of intended strategies, a notable paucity of information pertains to the precise mechanisms of their modification at the subsidiary level. Consequently, a discernible lacuna exists in the granular analysis of the strategic adaptations effected by managers when confronted with localized institutional voids, exemplified by the absence of recycling infrastructure in Uganda.

Variable 2: Implementation Challenges

The implementation of ESG is rarely smooth. The literature identifies several barriers, including internal resistance to change, high costs of implementation, lack of measurement tools, and weak regulatory enforcement (Trentin & Marques, 2025; Wang et al., 2024). Wright et al. (2020) highlight the “attitude-behavior gap,” where managers verbally support sustainability but fail to enact it due to perceived cost implications.

In the context of emerging markets, the challenges are distinct. Nandy (2021) argues that in South Asia and Africa, the primary challenges are the lack of supportive infrastructure (e.g., erratic electricity supply hindering green manufacturing) and the informality of the economy. Furthermore, cultural misalignment between global headquarters and local values can create friction (Bondy & Starkey, 2012; Luring et al., 2017). For instance, a study by Jamali et al. (2017) in Lebanon found that Western-centric ESG frameworks often clash with local business practices focused on immediate survival and kinship networks.

Despite these insights, there is a research gap regarding the specific managerial perspectives on these challenges within the Fast-Moving Consumer Goods (FMCG) sector in East Africa. Most studies focus on mining or banking, leaving the FMCG sector underexplored.

Variable 3: Organizational Performance

The relationship between ESG and financial performance has been debated for decades. The “trade-off hypothesis” suggests that ESG activities incur costs that reduce profitability (Friedman, 1970). Conversely, the “win-win hypothesis” suggests that ESG enhances reputation, reduces risk, and attracts talent, thereby improving performance (Orlitzky et al., 2003).

Recent meta-analyses tend to support the positive correlation (Friede et al., 2015; Saxena & Begde, 2026). For example, Busch and Lewandowski (2018) found that robust ESG practices are positively associated with corporate financial performance, particularly when integrated into core strategy rather than treated as an add-on. In terms of non-financial performance, ESG is linked to higher employee satisfaction and customer loyalty. A study by Du et al. (2020) on Unilever specifically noted that their sustainable brands grew 69% faster than other brands, validating the business case.

However, the “how” mechanism remains unclear. How exactly does ESG implementation translate to performance in a low-income market? Does the “sustainability premium” exist in price-sensitive markets like Uganda? This gap necessitates a qualitative inquiry into how managers perceive the impact of their ESG efforts on the company’s bottom line and brand equity.

3. Methodology

The study adopted a qualitative research approach utilizing a case study design. This design was appropriate because it allowed for an in-depth exploration of the “how” and “why” of ESG implementation within a real-life context at Unilever Uganda (Yin, 2018). The target population consisted of all middle and senior managers at Unilever Uganda involved in decision-making processes. A purposive sampling technique was used to select 12 participants who had direct oversight of ESG-related functions, ensuring rich and relevant data.

Data were collected using semi-structured interviews and documentary analysis. The interview guides were developed based on the research objectives, allowing for probing and follow-up questions. Secondary data, such as Unilever’s annual sustainability reports and internal policy documents, were reviewed to triangulate the findings. Data analysis was conducted using Thematic Analysis, where audio recordings were transcribed, coded, and grouped into emerging themes. Ethical considerations, including informed consent and anonymity, were strictly observed.

Table 1. Table of Respondents

Respondent Code	Department	Role	Experience (Years)
R1	Sustainability	Sustainability Manager	10
R2	Supply Chain	Logistics Manager	8
R3	Human Resources	HR Director	12
R4	Finance	Financial Controller	7
R5	Marketing	Brand Manager	5
R6	Operations	Plant Manager	15
R7	Procurement	Procurement Officer	6
R8	Legal	Company Secretary	9
R9	Research and Development	Quality Assurance Manager	11
R10	External Affairs	Corporate Communications Manager	8
R11	Sales	Regional Sales Manager	6
R12	Strategy	Business Strategy Manager	9

Demographic Composition: This table elucidates the demographic composition of the study participants. The respondents were selected from various departments to facilitate a comprehensive understanding of ESG initiatives. The high level of experience (an average of nine years) suggests that the participants possess deep institutional knowledge and thereby indicate their capacity for informed commentary regarding strategic shifts and operational challenges.

4. Interview Findings Stratified by Variable

Objective 1: Strategies employed by Unilever Uganda for the implementation of ESG initiatives

The study suggests that Unilever Uganda employs a multi-faceted strategy deeply rooted in the global “Compass” strategy but localized for the Ugandan context. Among the principal strategies identified was the plastic waste management circularity model. Management personnel indicated that Unilever has established partnerships with local recyclers to collect and recycle post-consumer plastic waste. Respondent R1 (Sustainability Manager) stated,

“We do not just sell products; we have launched the ‘Pick It Up’ initiative that creates a market for waste collectors in Kampala, turning a societal problem into a supply chain input.”

Such an approach aligns with the global impetus towards a circular economy (Yang et al., 2022); however, its adaptation specifically addresses the informal sector dynamics prevalent within Uganda.

Sustainable sourcing constituted another pivotal strategy, where the company’s focus on local agricultural procurement aims to mitigate carbon emissions and bolster social welfare. Respondent R7 (Procurement) elucidated that the local sourcing of a significant percentage of tea and maize diminishes import-related emissions and ensures adherence to the stringent agricultural standards delineated by the global ESG framework. Furthermore, the workforce diversity and inclusion strategy garnered prominence as a core social pillar. Human Resources personnel underscored the intentional recruitment of women and individuals with disabilities, aiming to fulfill the social dimension (‘S’) of ESG.

These findings suggest that Unilever’s strategies are not merely predicated upon compliance, but rather exhibit integration into the core business model, encompassing sourcing and waste recovery efforts. A pronounced emphasis on the circular economy model seemingly indicates a pivotal shift from linear production paradigms to closed-loop systems, a transition deemed critical within markets characterized by limited waste disposal infrastructure (Donk, 2025).

Objective 2: Challenges managers encounter in translating ESG policies into operational practice

Despite the formidable strategies, managers encountered substantial impediments. The principal impediment concerned the elevated expenditure associated with sustainable inputs. Respondent R4 (Finance) noted,

“Recycled packaging materials are often more expensive than virgin plastic. In a price-sensitive market like Uganda, absorbing these costs erodes our margins, yet passing them to the consumer reduces demand.”

This highlights the tension between ideal Environmental, Social, and Governance (ESG) goals and economic

reality.

A further substantial impediment involved infrastructural deficiencies. The Operations Manager (R6) pointed out,

“Our commitment to renewable energy is hindered by the instability of the national grid and the high initial capital for solar installation. We often have to rely on diesel generators, which contradicts our environmental targets.”

Moreover, the attainment of supply chain transparency was identified as problematic. Respondent R7 indicated that the monitoring of ESG compliance among small, informal local suppliers is arduous, particularly when contrasted with monitoring substantial, formalized European counterparts.

These challenges may be construed as reflective of the ‘institutional void’ theory, wherein the paucity of market intermediaries and infrastructure in developing markets demonstrably augments the transaction costs associated with sustainable business practices. Consequently, the findings suggest that global ESG policies frequently fail to adequately account for the stringent economic and infrastructural realities prevalent in developing nations.

Objective 3: Impact of ESG implementation on organizational performance and corporate image

The findings evinced a predominantly salutary effect on corporate image and talent attraction. Respondent R10 (Corporate Communications) remarked, “Our sustainability drive has made us an ‘Employer of Choice.’ As a result, young graduates want to work for a company with a purpose. It has insulated our brand reputation during times of crisis.” The ‘S’ component of ESG, particularly through community hygiene programs implemented during the COVID-19 pandemic, appears to have contributed to a deepening of consumer trust.

Nevertheless, the ramifications for financial performance elicited a bifurcated perspective. Although the Brand Manager (R5) acknowledged the growth trajectory of sustainable brands, these offerings persist as a diminutive fraction of total revenue. R5 posited,

“The ‘Green’ brands are experiencing growth; however, the mass-market, low-income consumer continues to prioritize price over sustainability attributes. Consequently, the direct financial return on investment (ROI) exhibits a protracted realization.”

Nevertheless, a consensus among managers suggested that the implementation of Environmental, Social, and Governance (ESG) principles may mitigate various risks, including regulatory fines and supply chain disruptions, thereby potentially contributing to long-term organizational stability.

ESG implementation serves as a reputational shield and a strategic differentiator in the labor market. However, the financial benefits are long-term rather than immediate, suggesting that Unilever Uganda is currently in the “investment phase” of its sustainability transition, trading short-term profits for long-term license to operate.

5. Discussion

Discussion on Objective 1: ESG Strategies

The findings regarding the use of circular economy strategies and sustainable sourcing resonate with the literature on Creating Shared Value (Kramer & Porter, 2011). By integrating waste management into the supply chain, Unilever Uganda is addressing a social problem (waste) while creating a cost-effective supply input, which validates the CSV concept. This aligns with Geissdoerfer et al. (2017), who argue that circular economies are pivotal for sustainable development. However, unlike studies in developed nations where technology drives circularity (e.g., automated sorting), this study highlights the reliance on human capital and informal sector partnerships in Uganda. This supports the observation that sustainability strategies in Africa must be “frugal” and labor-intensive due to capital constraints. The integration of ESG into procurement (sustainable sourcing) further mirrors findings that green supply chain management is a critical competitive strategy.

Discussion on Objective 2: Implementation Challenges

The challenges identified, particularly the high cost of green materials and infrastructural deficits, corroborate the “trade-off hypothesis”. The findings reveal that in emerging markets, the trade-off is steeper due to the lack of economies of scale for green products. This supports research which highlights that African firms face a “liability of origin” where the local context imposes unique constraints on global sustainability mandates. The issue of supply chain transparency aligns with studies emphasizing that sustainability requires visibility across the entire chain. The difficulty in tracking informal suppliers in Uganda suggests that global ESG frameworks often assume a level of formalization that does not exist in developing economies, a gap also noted in studies on MNCs in developing countries.

Discussion on Objective 3: Impact on Performance

Managers’ views confirm that ESG is a potent non-financial performance metric (Chatterji & Toffel, 2010). The

finding that sustainability attracts talent aligns with the study of Jones et al. (2014), who found a positive correlation between CSR and employee retention. The mixed financial results, growing brands but slow ROI, are consistent with the meta-analysis of Friede et al. (2015) and Delmas et al. (2015), which suggest that the ESG-performance correlation is often neutral or slightly negative in the short term but positive in the long term (Delmas et al., 2015; Friede et al., 2015). The managers' perception of ESG as a risk mitigation tool reflects the insights of Sharfman & Fernando (2008) and Gholami et al. (2022), who argue that high-sustainability firms have lower cost of capital and better risk management (Gholami et al., 2022; Sharfman & Fernando, 2008). This indicates that Unilever Uganda views ESG not just as marketing, but as a mechanism for long-term resilience in a volatile market.

6. Conclusions and Recommendations

6.1 Conclusions

The study concludes that translating ESG into practice at Unilever Uganda is a complex process of adaptation and compromise. While the company utilizes robust strategies centered on the circular economy and sustainable sourcing, the effectiveness of these strategies is tempered by significant local challenges, primarily infrastructural deficits and the high cost of green alternatives. Additionally, the study finds that while the immediate financial return on ESG investment is not always apparent, the non-financial benefits, specifically enhanced corporate reputation, talent attraction, and risk mitigation, are substantial. Managers act as critical intermediaries, reconciling the pressure from global headquarters for standardized reporting with the realities of the Ugandan market. Ultimately, the study finds that ESG implementation in this context is less about technical compliance and more about managing stakeholder relationships in a resource-constrained environment.

6.2 Recommendations

Based on the findings, the following recommendations are proposed:

- 1) To the Institution (Unilever): A primary focus for management may involve the strategic prioritization of "frugal innovation" for reducing the costs of sustainable products, thereby enhancing the accessibility of these products to the mass market. Furthermore, a substantial commitment to local supplier development appears warranted, facilitating the formalization of the supply chain and fostering transparency and compliance with Environmental, Social, and Governance (ESG) standards among smallholders.
- 2) To the Government (Policy Makers): The government might consider the introduction of fiscal incentives, including tax breaks for corporations using recycled materials or renewable energy sources, to mitigate the financial impediments to private sector Environmental, Social, and Governance (ESG) implementation. Additionally, investment in national waste management infrastructure may prove critical to support corporate circularity initiatives.
- 3) To Academia and Educators: Business schools in Uganda could integrate Environmental, Social, and Governance (ESG) principles and sustainability management into their curricula, thereby cultivating graduates with the requisite capabilities to address the challenges inherent in sustainable business operations within emerging markets.

References

- Abdul-Azeez, O. Y., Nwabekee, U. S., Agu, E. E., & Ijomah, T. I. (2024). Strategic approaches to sustainability in multinational corporations: A comprehensive review. *International Journal of Frontline Research in Science and Technology*, 3(2), 38–54. <https://doi.org/10.56355/ijfrst.2024.3.2.0046>
- Adeyeye, A. O., Oke, A. O., & Aigbavboa, C. O. (2021). Barriers to corporate social responsibility practices in developing countries. *Sustainable Production and Consumption*, 27, 1355–1366. <https://doi.org/10.1016/j.spc.2021.02.013>
- Bansal, P., & Roth, K. (2000). Why Companies Go Green: A Model of Ecological Responsiveness. *Academy of Management Journal*, 43(4), 717–736. <https://doi.org/10.5465/1556363>
- Bondy, K., & Starkey, K. (2012). The Dilemmas of Internationalization: Corporate Social Responsibility in the Multinational Corporation. *British Journal of Management*, 25(1), 4–22. <https://doi.org/10.1111/j.1467-8551.2012.00840.x>
- Brundtland, G. H., Khalid, M., Agnelli, S., Al-Athel, S. A., Chidzero, B. T. G., Fadika, L. M., Hauff, Lang, I., Ma, S., Botero, M. M. de, & Singh, N. (1987). *Our common future; by world commission on environment and development*. <https://bdpi.usp.br/item/000764409>
- Calzolari, T., Genovese, A., & Brint, A. (2021). The adoption of circular economy practices in supply chains – An assessment of European Multi-National Enterprises. *Journal of Cleaner Production*, 312,

- 127616–127616. <https://doi.org/10.1016/j.jclepro.2021.127616>
- Chatterji, A., & Toffel, M. W. (2010). How firms respond to being rated. *Strategic Management Journal*, 31(9), 917–945. <https://doi.org/10.1002/smj.840>
- Christopher, L., & Nadya, Z. (2011). *Embedded sustainability the next big competitive advantage*. http://bvbr.bib-bvb.de:8991/F?func=service&doc_library=BVB01&local_base=BVB01&doc_number=021154231&sequence=000003&line_number=0001&func_code=DB_RECORDS&service_type=MEDIA
- Delmas, M. A., Nairn-Birch, N., & Lim, J. (2015). Dynamics of Environmental and Financial Performance. *Organization & Environment*, 28(4), 374–393. <https://doi.org/10.1177/1086026615620238>
- Donk, L. L. van der. (2025). *Poor waste management leads to environmental degradation and health concerns* (pp. 127–129). <https://doi.org/10.4324/9781003468516-28>
- Eccles, R. G., & Viviers, S. (2011). The future of ESG disclosure. *Journal of Applied Corporate Finance*, 23(4), 93–95. <https://doi.org/10.1111/j.1745-6622.2011.00345.x>
- Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). The Impact of Corporate Sustainability on Organizational Processes and Performance. *Management Science*, 60(11), 2835–2857. <https://doi.org/10.1287/mnsc.2014.1984>
- Elkington, J. (1998). Partnerships from cannibals with forks: The triple bottom line of 21st-century business. *Environmental Quality Management*, 8(1), 37–51. <https://doi.org/10.1002/tqem.3310080106>
- Freeman, R. E. (1984). *Strategic management a stakeholder approach*. <https://doi.org/10.1017/cbo9781139192675>
- Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance & Investment*, 5(4), 210–233. <https://doi.org/10.1080/20430795.2015.1118917>
- Friedman, M. (1970). The social responsibility of business is to increase its profits. *New York Times Magazine*, 13, 32–33.
- Gholami, A., Sands, J., & Shams, S. (2022). Corporates' sustainability disclosures impact on cost of capital and idiosyncratic risk. *Meditari Accountancy Research*, 31(4), 861–886. <https://doi.org/10.1108/medar-06-2020-0926>
- Jensen, M. C. (2001). VALUE MAXIMIZATION, STAKEHOLDER THEORY, AND THE CORPORATE OBJECTIVE FUNCTION. *Journal of Applied Corporate Finance*, 14(3), 8–21. <https://doi.org/10.1111/j.1745-6622.2001.tb00434.x>
- Khanna, T., & Palepu, K. G. (2010). Winning in Emerging Markets: A Road Map for Strategy and Execution. *NHRD Network Journal*, 3(3), 75–75. <https://doi.org/10.1177/0974173920100316>
- Klettner, A., Clarke, T., & Boersma, M. (2013). The Governance of Corporate Sustainability: Empirical Insights into the Development, Leadership and Implementation of Responsible Business Strategy. *OPUS - Open Publications of UTS Scholars (University of Technology Sydney)*, 122(1), 145–165. <https://doi.org/10.1007/s10551-013-1750-y>
- Kramer, M. R., & Porter, M. E. (2011). Creating Shared Value. In *Issue Lab (Candid)*. Candid. <https://issuelab.org/permalink/resource/5806>
- Krause, J., Kebir, N., & Schaltegger, S. (2023). The business case for sustainability in SMEs: A systematic literature review. *Business Strategy and the Environment*, 32(4), 2239–2260. <https://doi.org/10.1002/bse.3229>
- Krishnamoorthy, R. (2021). Environmental, Social, and Governance (ESG) Investing: Doing Good to Do Well. *Open Journal of Social Sciences*, 9(7), 189–197. <https://doi.org/10.4236/jss.2021.97013>
- Lauring, J., Andersen, P. H., Storgaard, M., & Kragh, H. (2017). Low-intensity conflict in multinational corporations. *Multinational Business Review*, 25(1), 11–27. <https://doi.org/10.1108/mbr-04-2015-0013>
- Mahoney, L. S., Thorne, L., & Cecil, L. (2013). The adoption of corporate social responsibility reporting: An institutional theory perspective. *Journal of Business Ethics*, 112(1), 127–145. <https://doi.org/10.1007/s10551-012-1234-6>
- Nandan, Mr. S. P. K., & Sinku, S. (2024). The ESG Evolution: Bridging the Gap Between Global Standards and Local Realities in Emerging Markets. *Nanotechnology Perceptions*, 137–153. <https://doi.org/10.62441/nano-ntp.vi.3623>

- Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate Social and Financial Performance: A Meta-Analysis. *Organization Studies*, 24(3), 403–441. <https://doi.org/10.1177/0170840603024003910>
- Saxena, P., & Begde, P. (2026). Mapping the ESG – CFP Nexus: Bibliometric, Thematic, and Meta-Analytical Synthesis. *Indian Journal of Finance*, 26–49. <https://doi.org/10.17010/ijf/2026/v20i2/175363>
- Serafeim, G. (2020). ESG and the cost of capital. In *Harvard Business School Working Paper*. <https://doi.org/10.2139/ssrn.3633197>
- Sharfman, M. P., & Fernando, C. S. (2008). Environmental risk management and the cost of capital. *Strategic Management Journal*, 29(6), 569–592. <https://doi.org/10.1002/smj.678>
- Trentin, L., & Marques, M. (2025). Level of maturity of ESG governance practices: implications on organizational performance. *Revista Ibero-Americana de Estratégia*, 24(2). <https://doi.org/10.5585/2025.27483>
- Unilever. (2010). *Unilever Sustainable Living Plan*. Unilever PLC.
- Visser, W. (2016). Sustainable business: A holistic and African perspective. *African Journal of Business Ethics*, 9(2), 1–15. https://doi.org/10.4103/ajobe.ajobe_13_16
- Wang, Q., Song, Z., & Kang, Y. (2024). ESG Performance and Competitive Advantage Construction for the Development of Enterprise Transformation—A Case Study of Sany Heavy Industry Co., Ltd. *International Business Research*, 17(3), 101–101. <https://doi.org/10.5539/ibr.v17n3p101>
- Yang, M., Chen, L., Wang, J., Msigwa, G., Osman, A. I., Fawzy, S., Rooney, D. W., & Yap, P. (2022). Circular economy strategies for combating climate change and other environmental issues. *Environmental Chemistry Letters*, 21(1), 55–80. <https://doi.org/10.1007/s10311-022-01499-6>
- Yin, R. K. (2018). *Case study research and applications design and methods*. http://bvbr.bib-bvb.de:8991/F?func=service&doc_library=BVB01&local_base=BVB01&doc_number=029878778&sequence=000001&line_number=0001&func_code=DB_RECORDS&service_type=MEDIA

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

Post-Training Follow-Up and Employee Training Transfer: Problems and Improvement Strategies

Megan M. Foster¹

¹ University of Oradea, Oradea, Romania

Correspondence: Megan M. Foster, University of Oradea, Oradea, Romania.

doi:10.63593/FMS.2788-8592.2026.07.003

Abstract

Post-training follow-up is an important part of employee development, but many organizations still treat training as completed when the formal training session ends. This weakens the connection between learning and actual work performance. Employees may understand new knowledge during training but fail to apply it because follow-up activities are limited, work tasks do not provide suitable opportunities, supervisors provide little support, or training results are not reviewed after employees return to work. The weak connection between post-training follow-up and training transfer reduces the practical value of employee training and may also lead to repeated investment in ineffective programs. This paper examines the relationship between post-training follow-up and training transfer, focusing on the common problems that prevent employees from applying what they have learned. It discusses the separation of training and follow-up, unclear follow-up responsibilities, insufficient workplace support, weak feedback mechanisms, and excessive reliance on formal assessment. Based on these problems, the paper proposes improvements in follow-up planning, supervisor involvement, workplace application, feedback, and evaluation. The discussion suggests that post-training follow-up should not be treated as an additional administrative activity. It should become a continuous process connecting training content, employee work tasks, supervisor support, and performance improvement.

Keywords: employee training, post-training follow-up, training transfer, workplace learning, employee development

1. Introduction

Employee training is often organized as a planned activity with a clear beginning and end. Employees attend training sessions, complete learning tasks, take part in discussions or exercises, and sometimes complete a test at the end of the program. Once these activities are finished, the training is often regarded as completed. This way of managing training makes the delivery process relatively easy to organize, but it does not fully address what employees do after they return to their jobs.

The actual value of training depends on whether employees can use what they have learned in their daily work. New knowledge has limited practical value if it remains only in training materials or is remembered for a short period. The same problem can occur with newly learned skills. An employee may understand a new communication method during a training exercise but continue using an old communication style when dealing with real customers. A manager may learn new methods for giving employee feedback but continue with the same management habits after returning to the workplace. These situations show that learning during training and using that learning at work are different processes.

Training transfer refers to the use of knowledge, skills, attitudes, and behaviors gained through training in actual work situations. Transfer requires employees to move beyond understanding and begin using new approaches in their normal tasks. This process can be difficult because workplace situations are usually more complex than

training exercises. Employees may face time pressure, heavy workloads, unclear work requirements, limited resources, or resistance from colleagues. Even when employees recognize the value of new skills, these conditions can make continued application difficult.

Post-training follow-up can help address this gap. Follow-up takes place after formal training and can include supervisor conversations, work assignments, coaching, refresher activities, performance reviews, and feedback. These activities give employees opportunities to revisit training content and connect it with actual work. They can also help managers identify why employees are not applying what they have learned. In this sense, post-training follow-up is not simply a way to check whether employees remember the course. It can serve as a bridge between learning and workplace behavior.

The quality of this bridge depends on how closely follow-up activities are connected with the original training objectives. If the training focuses on a specific workplace skill, follow-up should give employees a chance to use that skill. If employees encounter problems during application, supervisors or training staff should help them understand the problem and adjust their approach. When follow-up is limited to a satisfaction survey or a short knowledge test, the connection with actual work remains weak.

Another issue is that different people often participate in different parts of the training process. Training staff may be responsible for course design and delivery, while supervisors manage employees' daily work. Employees themselves are responsible for applying new knowledge. When these roles are not connected, the period after training can become a gap in the learning process. The training department may believe that its task has been completed, while supervisors may not know what employees were expected to apply. Employees then have to decide on their own whether and how to use the training content.

The problem is not simply the absence of follow-up. Some organizations do have follow-up activities, but these activities may not support training transfer effectively. Follow-up may be too general, too infrequent, or disconnected from actual job tasks. Employees may be asked to submit reports about their learning without receiving useful feedback on their work performance. Managers may also focus on whether employees completed the required follow-up rather than whether their work behavior has changed.

A stronger connection between follow-up and training transfer requires a shift in attention from training completion to workplace application. The organization needs to consider what employees should do after training, what support they need, who should provide that support, and how the organization will know whether the new behavior is being maintained. These questions make post-training follow-up part of the training process rather than an activity added after training has ended.

This paper focuses on the problems that weaken the connection between post-training follow-up and training transfer. It discusses the separation between training and follow-up, unclear responsibilities, unsupportive workplace conditions, excessive reliance on formal assessment, and weak feedback. It then considers practical ways to strengthen the connection through follow-up planning, supervisor involvement, workplace practice, feedback, and transfer-oriented evaluation. The discussion centers on how organizations can make the period after training more closely connected with employees' actual work.

2. Relationship Between Post-Training Follow-Up and Training Transfer

2.1 Training Transfer as the Practical Purpose of Training

Training transfer is the process through which employees use what they have learned in training in their actual work. It is not limited to remembering course content. The key issue is whether learning can lead to changes in work behavior. Employees may understand a new procedure, communication method, management technique, or technical skill during training, but the learning only becomes practically meaningful when it is used in real work situations.

There is usually a gap between learning and application. Training activities often take place in a relatively controlled environment. Employees have time to listen, practice, ask questions, and repeat an exercise. Workplaces are less predictable. Employees have to deal with customers, colleagues, deadlines, unexpected problems, and existing work procedures. A skill that appears easy during training may become difficult to use when several work demands occur at the same time.

The gap can also come from established habits. Employees usually have existing ways of completing their work. These methods may not be perfect, but they are familiar and require little additional effort. After training, using a new method may require employees to change these habits. If there is no clear reason to make the change, employees may gradually return to their previous behavior.

Employee confidence also affects transfer. Some employees may understand a new skill but remain uncertain about using it independently. They may worry about making mistakes or receiving negative reactions from colleagues and supervisors. In such cases, an opportunity to practice the new behavior with workplace support

can be more useful than additional theoretical instruction.

Training transfer can also be understood through the distinction between initial application and continued application. Initial application occurs when employees first attempt to use new knowledge or skills at work. Continued application means that the new behavior is used repeatedly and becomes part of normal work practice. The second stage is particularly important because occasional use does not necessarily produce lasting change.

Post-training follow-up has an important role in both stages. It can encourage employees to make the first attempt and provide support when they encounter difficulties. It can also help maintain the new behavior through repeated practice and feedback.

2.2 The Role of Post-Training Follow-Up

Post-training follow-up refers to activities carried out after formal training to support employees' continued learning and workplace application. It can take different forms depending on the type of training. A supervisor may have a short conversation with an employee, a training department may provide refresher materials, or an employee may complete a work-based task related to the course.

The main value of follow-up is that it keeps the connection between training content and work tasks active. Without follow-up, employees are often left to decide how much of the training they will use. The organization may have invested considerable resources in the training, but the application process receives much less attention.

A useful follow-up activity should have a clear relationship with the original training. If employees learned a new problem-solving technique, follow-up can ask them to use the technique when handling a real work problem. If the training focused on leadership communication, supervisors can observe how employees conduct team discussions or give feedback to staff. This makes follow-up more concrete.

Follow-up can also reveal problems that were not visible during training. An employee may report that a particular method is difficult to use because the current work system does not provide the required information. Another employee may find that the method takes more time than the existing process. These problems cannot always be solved through additional training. They may require changes in work arrangements, tools, performance standards, or supervisor support.

The timing of follow-up matters as well. A single review conducted long after training may not provide enough support. Employees need opportunities to reflect on training while they are still trying to apply it. Short and regular follow-up activities can make it easier to identify problems early and provide appropriate assistance.

Follow-up also gives employees a reason to take training more seriously. When employees know that their managers will later discuss how training is being used, they are more likely to think about how the learning relates to their work. The follow-up process can create an expectation that training is not simply an activity to complete but something that should influence actual work.

2.3 The Need for a Continuous Connection

The relationship between post-training follow-up and training transfer is strongest when they are designed as parts of the same process. Training provides the knowledge and skills. Follow-up provides opportunities and support for application. Workplace feedback then helps employees adjust their behavior.

This relationship can be represented as:

Training → Application Plan → Workplace Practice → Follow-Up → Feedback → Adjustment → Continued
Transfer

Each stage has a different function. Training introduces the new knowledge or skill. An application plan clarifies how it can be used at work. Workplace practice gives employees an opportunity to test the new approach. Follow-up checks what happens after employees begin applying it. Feedback helps identify strengths and problems. Adjustment allows employees to improve their approach. Continued practice then supports more stable behavior.

The connection can become weak when any stage is treated as unrelated to the others. For example, a training program may teach employees a new reporting procedure, but employees may not be given time to use it. The follow-up department may later ask whether the employees completed the course, but this does not address the real issue. The problem is not whether employees remember the procedure. The problem is that the workplace has not created a suitable opportunity for application.

The same issue can occur when follow-up is designed without considering training objectives. A general questionnaire may show that employees were satisfied with the course, but it provides little information about whether their work behavior has changed. Follow-up needs to focus on the specific knowledge and behaviors

that the training was intended to develop.

A continuous connection also requires cooperation between different organizational roles. Training staff understand the course content and can design suitable follow-up activities. Supervisors understand employees' daily work and can observe actual application. Employees understand the practical difficulties they face when using new skills. Information from these three groups needs to be connected.

This connection is particularly important when training involves behavioral change. Technical knowledge may sometimes be applied immediately after training, but changes in communication, leadership, teamwork, and management behavior usually require repeated practice. Employees need opportunities to try new behaviors, receive feedback, make adjustments, and try again.

Post-training follow-up therefore has a broader function than checking training results. It can create the conditions needed for learning to move into daily work. When follow-up is closely connected with actual tasks, it becomes part of the transfer process itself. When it is separated from workplace application, the organization may complete the formal training process without achieving meaningful changes in employee behavior.

3. Problems in Linking Post-Training Follow-Up with Training Transfer

3.1 Follow-Up Is Separated from the Original Training

A major problem is the separation between training delivery and post-training follow-up. In some organizations, training is planned around the course itself. The main attention is given to training content, instructors, schedules, attendance, and immediate assessments. Once the course is completed, the responsibility of the training department may be considered finished. Follow-up is then arranged later, if it is arranged at all.

This approach makes training and workplace application two relatively independent activities. Employees may receive a clear explanation of what they learned, but they may not receive clear guidance about what they are expected to do after returning to work. The training may emphasize knowledge acquisition without identifying the specific work behaviors that should change.

The problem becomes more obvious when training content is broad. For example, a leadership course may introduce communication, delegation, conflict management, and team motivation. If there is no follow-up plan, an employee may remember several concepts but remain uncertain about which ideas should be applied first. The employee may also have difficulty deciding whether the new methods are suitable for current work situations.

The absence of an application plan creates another problem. Employees need to know how training content can fit into their existing responsibilities. A training course can provide general principles, but employees usually need additional guidance when they encounter specific workplace situations. Without this connection, training knowledge can remain separate from normal work routines.

The timing of follow-up can make the separation even more serious. When a long period passes between training and follow-up, employees may have already returned to familiar working habits. They may remember the general topic of the course but have difficulty recalling specific techniques. A later questionnaire may confirm that the training took place, but it cannot easily restore the opportunity for early workplace practice.

Training and follow-up should also share similar objectives. If the training focuses on improving customer communication, the follow-up should examine customer communication in actual work. If the training teaches a new management process, the follow-up should focus on whether managers have used that process. When the follow-up uses unrelated indicators, the organization cannot clearly judge whether training has transferred to work.

The separation between the two stages is not only a planning problem. It changes the meaning of training itself. Training becomes an event rather than part of a continuing development process. Employees attend the course, complete the required activities, and move back to their normal work. The organization then has limited control over whether the new knowledge becomes part of daily practice.

3.2 Follow-Up Responsibilities Are Unclear

Unclear responsibilities create another barrier to training transfer. Post-training follow-up involves several participants, but their roles are not always clearly defined. Training departments, supervisors, and employees may all have some responsibility, yet none of them may have clear ownership of the entire process.

Training departments usually have strong control over course design and delivery. They can determine the learning objectives, select training materials, arrange instructors, and collect immediate feedback. Their contact with employees may become weaker after the course ends, however. Training staff may not know enough about employees' daily work to judge whether new skills are being applied properly.

Supervisors are in a different position. They work directly with employees and can observe changes in behavior.

They can also provide opportunities for employees to practice new skills. However, supervisors may not know enough about the training content or may not consider post-training coaching part of their own responsibilities.

Employees themselves also play an important role. They need to make an effort to use new knowledge and identify situations in which it can be applied. Yet expecting employees to manage the entire transfer process on their own is unrealistic. Workplace expectations, available resources, and supervisor attitudes can strongly affect their ability to change behavior.

When these roles are not connected, a responsibility gap can appear. The training department may assume that supervisors will follow up. Supervisors may assume that the training department will evaluate the results. Employees may receive no clear instruction from either side. The organization has technically provided training, but no one has taken responsibility for ensuring that learning is transferred.

The lack of responsibility can also affect the quality of follow-up. If no person or department is responsible for reviewing progress, follow-up may become an optional activity. Supervisors may prioritize urgent work, while training staff may focus on new training programs. Employees then receive less attention during the period when they most need support.

Clear responsibilities should not mean that one person handles everything. Training transfer involves different types of work. Training staff can organize the process, supervisors can provide workplace support, and employees can take responsibility for application. The important point is that each role needs to be visible and connected with the others.

3.3 Workplace Conditions Do Not Support New Behaviors

Even when follow-up exists, workplace conditions may prevent employees from applying what they have learned. Training normally focuses on what employees should know or do. Actual transfer also depends on whether the work environment allows employees to use the new behavior.

Workload is one common barrier. Employees may return from training to a busy work schedule and have little time to practice new methods. A new approach may require more attention during the early stage of application. Under time pressure, employees may choose familiar methods because they are faster and easier.

Existing procedures can create a similar problem. An organization may teach employees a new approach but continue using work systems designed around older practices. Employees then have to work within two different sets of expectations. The training encourages change, while the existing work system encourages continuity.

Performance targets can also influence transfer. Employees tend to pay attention to the behaviors that are directly connected with their evaluation. If a new training method requires more time but performance indicators reward speed, employees may have little incentive to use the new method consistently.

Supervisor attitudes are equally important. Employees are more willing to try new approaches when supervisors allow reasonable mistakes and provide constructive feedback. If supervisors immediately criticize unfamiliar methods or insist on previous practices, employees may stop using the new skills.

Coworkers can also influence behavior. Workplace behavior is rarely formed by individuals alone. Employees observe how colleagues perform their tasks and often adjust their own behavior to fit the surrounding work environment. A person who tries to use a new method may find it difficult to continue when colleagues do not accept it.

These conditions show why training transfer cannot be treated as an individual learning problem. Employees may have learned the right knowledge but still lack the conditions required to use it. Post-training follow-up needs to identify these workplace barriers rather than simply telling employees to apply the training more actively.

3.4 Follow-Up Relies Too Heavily on Formal Assessment

Formal assessment is useful for checking learning, but it is not enough to determine whether training has been transferred to the workplace. Many organizations still rely heavily on written tests, online quizzes, attendance records, or course satisfaction surveys after training.

These methods are convenient because they are easy to organize and quantify. A test can show whether employees remember key concepts. A satisfaction survey can show whether employees liked the course. Attendance records can confirm participation. None of these measures directly demonstrates whether employees have changed their work behavior.

For example, an employee may obtain a high score on a test about conflict management but still avoid difficult conversations with colleagues. Another employee may report high satisfaction with a communication course but continue using the same communication habits. The assessment results can look positive even though workplace transfer is limited.

The problem becomes more serious when assessment results are treated as evidence of training success. If an organization considers high test scores sufficient, there is less pressure to observe what happens after employees return to work.

Follow-up should pay more attention to application. This can include reviewing work tasks, observing behavior, discussing actual situations, or examining whether employees have incorporated new methods into their normal routines. Such approaches require more effort than a simple test, but they provide information that is much closer to the purpose of training.

3.5 Feedback Is Delayed or Too General

Feedback is an important part of training transfer, but it is often weak during the post-training period. Employees may be asked whether they have used the training without receiving specific information about how well they are applying it.

Useful feedback needs to be connected with actual behavior. An employee should be able to understand what was done effectively, what created a problem, and what could be changed in the next attempt. General comments such as “keep improving” or “apply what you learned” provide little practical direction.

Timing also matters. Feedback is more useful when it is provided close to the actual work situation. If an employee tries a new technique on Monday but receives comments several weeks later, important details may already have been forgotten. The employee may also have repeated the same mistake many times.

Feedback should not be limited to negative performance. Employees need to know which new behaviors are working well. Positive feedback can strengthen the use of effective methods and increase confidence. When difficulties appear, corrective feedback can help employees make small adjustments instead of abandoning the new approach completely.

There is also a need for two-way feedback. Supervisors should not only tell employees what they think. Employees should be able to explain what makes the training difficult to apply. Some problems may come from the work system rather than from individual performance. Listening to employees can help organizations distinguish between a lack of skill and a lack of workplace support. A stronger feedback process can turn follow-up into an active learning period. Employees try, receive feedback, adjust, and try again. This process is more closely related to training transfer than a single post-training assessment.

4. Improvement Strategies for Strengthening Training Transfer

4.1 Design Follow-Up Together with the Training Program

Post-training follow-up should be considered when the training program is designed rather than added after the course has finished. The training plan needs to answer a simple question: What should employees be able to do differently at work after the training?

This question can help organizations move from general learning objectives to specific workplace behaviors. A training program about customer service, for example, should not stop at teaching communication principles. It can identify several behaviors that employees should use after training, such as asking clearer questions, responding to customer concerns, or explaining solutions in a more structured way. These behaviors can later become the focus of follow-up.

Training objectives should also be connected with realistic work situations. Employees are more likely to transfer learning when they can see where the new knowledge fits into their existing responsibilities. Training content that has no clear connection with daily tasks is difficult to maintain after employees return to work.

The follow-up plan can be prepared before the training ends. Employees can identify one or two areas where they intend to apply the new knowledge. Supervisors can discuss whether these areas are relevant to current work tasks. The training department can then provide simple guidance for the application period.

This approach also makes follow-up easier to evaluate. If the organization has identified specific behaviors before training, it can later examine whether those behaviors have appeared in actual work. The question changes from “Did the employee complete the training?” to “Did the employee use the skill that the training was designed to develop?” Follow-up planning should remain simple. Excessively complicated plans can become another administrative burden. A small number of clear application goals is usually more practical than a long list of requirements.

4.2 Use Short and Regular Follow-Up Activities

Follow-up does not need to rely on one formal review. Short and regular activities can provide continuous contact between employees and the training content. For example, a supervisor can have a ten-minute conversation with an employee one week after training. The conversation can focus on what the employee has tried, what worked, and what was difficult. A second conversation can take place after another period of

workplace practice. This creates repeated opportunities to discuss application.

Refresher materials can also be used. A short reminder of an important concept may help employees recall training content when they need it. The material does not need to repeat the entire course. It should focus on the knowledge or skill that employees are expected to use.

Work-based tasks are another useful method. Employees can be asked to apply one specific technique during normal work and briefly record the result. The task should be connected with their actual responsibilities. This makes follow-up part of work rather than an additional activity that has little connection with work.

Regular follow-up is particularly useful during the early period after training. Employees may experience difficulties when they first attempt to use a new method. Early contact gives the organization an opportunity to identify these difficulties before employees return completely to their old habits.

The frequency of follow-up should also depend on the type of training. A simple technical procedure may require only a small number of checks. Training involving leadership, communication, teamwork, or behavioral change may require longer support because these skills depend on repeated practice.

4.3 Increase Supervisor Involvement

Supervisors are in a strong position to connect training with daily work. They know employees' tasks, observe their performance, and have the authority to arrange work opportunities. Greater supervisor involvement can make training transfer more realistic.

Supervisor involvement should begin before the training. Managers can explain why the training is relevant to the employee's role and identify work situations where the new skill may be useful. This gives employees a clearer reason to pay attention to the course.

After training, supervisors can discuss how employees plan to use the new knowledge. Instead of asking only whether the employee enjoyed the training, the supervisor can ask what the employee has tried and what support is needed.

Supervisors can also create opportunities for application. If an employee has learned a new presentation technique, the supervisor can assign a suitable presentation task. If an employee has learned a new method for handling customer complaints, the supervisor can allow the employee to use the method in appropriate cases.

Observation is another important function. Supervisors do not need to observe every activity. They can pay attention to selected situations in which the trained behavior is expected to appear. Their observations can then be discussed with employees.

The supervisor's response to mistakes also matters. Employees may not use a new method perfectly during the first attempt. If every mistake is treated as a failure, employees may quickly return to familiar practices. Supervisors should allow reasonable experimentation while making clear what standards still need to be met.

Supervisor involvement should not become constant monitoring. Excessive monitoring may create pressure and make employees view follow-up as another form of inspection. The purpose is to provide support and direction so that employees can gradually use new skills with greater confidence.

4.4 Connect Training Tasks with Real Work

The distance between the training environment and the workplace can be reduced by making post-training tasks part of employees' normal work. Employees learn more effectively when they can immediately connect new knowledge with real situations. A manager who has learned a new delegation method can apply it when assigning an actual project. A sales employee who has learned a new customer communication technique can use it during real customer interactions. A team leader who has learned a conflict management method can apply it when handling a genuine disagreement.

Real work also provides more useful feedback than artificial exercises. Workplace situations contain unexpected factors that cannot always be reproduced during training. Employees can discover which parts of the training are easy to apply and which require adjustment.

The organization should avoid assigning application tasks that have no connection with employees' responsibilities. Such tasks may satisfy a formal follow-up requirement but are unlikely to produce lasting changes. The closer the task is to normal work, the easier it is for employees to see the value of the training.

Work-based application also makes the role of supervisors clearer. Supervisors can include the new behavior in normal work arrangements instead of creating completely separate activities. This reduces the administrative burden associated with follow-up.

4.5 Build a Simple Feedback Mechanism

A practical feedback mechanism should connect employees, supervisors, and training staff. Each group has

different information about the transfer process. Employees know what happens when they attempt to use new skills. They can explain which parts of the training are useful and which parts are difficult to apply. Supervisors can observe changes in actual work behavior. Training staff can compare this information with the original learning objectives.

A simple feedback structure can be built around three questions:

What have you applied?

What problems did you encounter?

What support do you need?

These questions are more useful than asking only whether employees were satisfied with the training. They focus attention on workplace application and the barriers that affect it. Feedback should also move in both directions. Training departments should receive information from employees and supervisors, but they should also provide useful responses. If employees repeatedly report the same difficulty, the organization should determine whether the problem comes from insufficient training, unclear procedures, limited resources, or conflicting work requirements. The feedback mechanism can also support later training design. Information collected after training can show which parts of a course are difficult to apply. The next training program can then place more attention on those areas.

4.6 Evaluate Transfer Rather than Only Learning Outcomes

Training evaluation should include workplace transfer. Immediate learning results are useful, but they represent only one part of the process. Evaluation can examine whether employees use the trained skills in their normal work, whether new behaviors are maintained, and whether work performance shows relevant improvement. The indicators should match the purpose of the training.

For communication training, evaluation can focus on observable communication behaviors. For technical training, it can examine whether employees correctly use the new procedure. For management training, it can consider behaviors such as delegation, feedback, meeting management, or employee communication.

The evaluation period should also be long enough to identify continued use. An employee may use a new skill immediately after training but stop using it several weeks later. A single evaluation cannot fully capture this change. Evaluation should not become a tool for blaming employees. If transfer is weak, the organization should examine the surrounding conditions as well. The employee may have learned the required skill but lacked time, resources, authority, or supervisor support. A transfer-oriented evaluation needs to consider these factors.

When evaluation results are used in this way, post-training follow-up becomes more useful. It does not simply produce a score. It provides information about what employees have learned, what they have applied, what has prevented application, and what should be changed in the next stage.

5. Building an Integrated Post-Training Follow-Up Mechanism

5.1 Establishing a Clear Connection Before Employees Return to Work

An effective follow-up mechanism should begin before employees leave the training environment. The period immediately after training is easier to manage when employees already understand what they are expected to apply in their work.

The organization can identify a small number of key skills or behaviors at the end of each training program. These should be specific enough to observe in daily work. For example, communication training can focus on several observable behaviors rather than asking employees to “improve communication” in general. Management training can identify specific practices such as giving regular feedback, delegating tasks clearly, or holding structured team discussions.

Employees can then prepare a simple application plan. The plan does not need to contain complicated procedures. It can identify the skill to be used, the work situation in which it will be used, and the expected period of initial practice. This gives employees a clear starting point after they return to work.

Supervisors should be involved in this stage as well. They can help employees choose realistic work situations for application. A skill that is appropriate in one position may not be equally relevant in another. Supervisor participation can make the application plan more closely connected with actual job responsibilities.

The organization should also clarify who will provide follow-up. Employees need to know who they can approach when they encounter problems. Supervisors need to know what kind of support they are expected to provide. Training staff need to know when they should become involved again.

This early preparation reduces the gap between learning and work. Instead of leaving employees to decide independently what to do after training, the organization establishes a clear path from the training room to the

workplace.

5.2 Supporting Employees During Workplace Application

The next stage begins when employees start using new knowledge and skills in their normal work. This is often the most difficult stage because employees must deal with real work conditions.

Organizations should give employees reasonable opportunities to practice. If the new skill is never needed in the employee's current tasks, transfer cannot occur easily. Work assignments should therefore provide suitable situations for employees to try the new method.

Supervisors can support this process through coaching. Coaching does not require a long formal meeting every time. A short conversation after a work task can be enough to identify what happened and what could be improved. The important point is that the conversation focuses on actual application.

Employees may also need access to practical resources. These can include job aids, checklists, templates, examples, or short refresher materials. Such resources can be particularly useful when employees are still becoming familiar with a new procedure.

Peer support can provide another source of assistance. Employees who have attended the same training can discuss how they have used the knowledge in their own work. They may encounter similar problems and exchange practical solutions. This can make the transfer process less dependent on formal supervision.

Workplace support should not mean that every employee is required to follow a new method in exactly the same way. Different positions may require some adjustment. What matters is that the main purpose of the training is maintained while employees are allowed to adapt the skill to realistic work conditions.

5.3 Creating a feedback and Adjustment Cycle

The application stage should be followed by regular feedback. Feedback helps employees understand whether their new behaviors are producing the expected results.

A useful feedback conversation can begin with the employee's own experience. Employees can describe what they tried, where they found difficulty, and whether the new method seemed useful. Supervisors can then add their observations and suggest specific adjustments.

This process is more useful than simply telling employees whether they passed or failed a follow-up assessment. Transfer is often gradual. Employees may successfully apply some parts of the training while struggling with others. Feedback allows the organization to respond to these differences.

Adjustment is also important because training content cannot predict every workplace situation. An approach that works well in a training exercise may need modification when used with real customers, colleagues, or work processes. Follow-up can identify these differences and help employees adapt without abandoning the main learning objective.

The feedback cycle can also identify organizational problems. Suppose several employees report that they cannot use a new procedure because the relevant software does not provide the necessary information. The problem is not simply a lack of employee effort. The organization may need to change the system or work process.

This makes feedback valuable at both the individual and organizational levels. At the individual level, it helps employees improve their behavior. At the organizational level, it shows whether the workplace itself is helping or restricting training transfer.

5.4 Reviewing Continued Application

Initial application does not mean that transfer has been completed. Employees may try a new method once or twice and later return to previous habits. The organization therefore needs to review whether new behaviors continue over time.

The review does not need to be a large formal evaluation. It can be incorporated into regular performance discussions or team meetings. Supervisors can consider whether employees continue to use the relevant skills and whether the new practices have become part of normal work.

The review should also consider the stability of the new behavior. If employees use a skill only when they know they are being observed, the transfer may be superficial. More meaningful transfer occurs when employees use the skill naturally during ordinary work.

Continued application can be encouraged by recognizing useful behaviors. Recognition does not always have to involve financial rewards. Managers can acknowledge employees who successfully apply new methods, share useful examples with the team, or give employees opportunities to take on tasks that require the newly developed skills.

If application declines, the organization should identify the reason rather than simply asking employees to work harder. The problem may be related to workload, unclear procedures, lack of resources, or changes in job requirements. A follow-up mechanism should be able to respond to these changes.

5.5 Returning Follow-Up Information to Training Design

The final part of an integrated mechanism is the return of follow-up information to future training design. Training should not be treated as a fixed product that remains unchanged after delivery.

Information from the workplace can reveal which parts of the training are useful and which parts are difficult to apply. If employees repeatedly struggle with the same skill, the training program may need more practical exercises. If employees understand the skill but cannot use it because of workplace procedures, the organization may need to change the work environment rather than redesign the course.

This creates a connection between one training cycle and the next. The organization can use follow-up information to improve training objectives, examples, exercises, application tasks, and evaluation methods.

A complete mechanism can therefore be understood as a continuing cycle:

Training Design → Learning → Application Plan → Workplace Practice → Follow-Up → Feedback →
Adjustment → Continued Application → Training Improvement

The value of this mechanism lies in its continuity. Training does not end when employees leave the classroom. Follow-up does not end when a questionnaire is completed. The organization continues to observe, support, and adjust the transfer process.

This approach also changes the role of the training department. Training staff are no longer responsible only for organizing courses. They become participants in a wider employee development process. Supervisors are not simply users of training results. They become important supporters of workplace application. Employees are not passive recipients of training. They participate actively in turning learning into work behavior.

An integrated mechanism can remain relatively simple if the organization focuses on a few key questions: What should employees apply? Where can they apply it? Who will support them? What difficulties have appeared? What needs to be adjusted? Clear answers to these questions can make post-training follow-up more closely connected with actual training transfer.

5.6 Connecting Follow-Up with Organizational Performance

Training transfer should not stop at the question of whether employees have used a new skill. The more important issue is whether the new behavior can become part of normal work and contribute to the requirements of the employee's position. This does not mean that every training program must produce an immediate improvement in performance. The relationship between training transfer and performance is usually indirect. Employees may need time to practice a new skill before its effects become visible in work results.

For this reason, organizations should distinguish between learning, transfer, and performance. Learning means that employees acquire new knowledge or skills. Transfer means that employees use these abilities in actual work. Performance refers to the broader results of their work, which can be influenced by many factors beyond training. A sales employee, for example, may successfully apply a new customer communication technique, but sales results may still be affected by market conditions, product quality, customer demand, or pricing. It would be unreasonable to attribute every change in performance directly to training.

This distinction is important when organizations evaluate post-training follow-up. If follow-up focuses only on final performance indicators, employees may be judged before they have had enough time to develop stable new behaviors. A better approach is to connect training objectives with observable work behaviors and then consider their contribution to relevant performance outcomes. This creates a more realistic relationship between training and organizational performance.

Training objectives should also be connected with actual job responsibilities. Each training program can identify the work activities in which the learned knowledge or skills are expected to be used. For example, training for team leaders may focus on delegation, employee feedback, and task coordination. These skills can then be connected with the team leader's normal management responsibilities. Follow-up can examine whether the leader is using these practices during regular work rather than asking only whether the training content has been remembered.

This connection can also reduce unnecessary administrative work. If follow-up is designed as a separate reporting system, employees and supervisors may view it as another form to complete. When follow-up is included in existing work meetings, coaching conversations, or performance discussions, it becomes easier to maintain. A supervisor can spend a few minutes discussing the application of a recently learned skill during a normal performance conversation instead of arranging a separate meeting.

The training department can support this process by providing simple follow-up tools. These tools can include short discussion questions, observation points, application checklists, or examples of expected workplace behaviors. Supervisors can use them according to their actual work conditions. The purpose is not to create another complicated evaluation system but to make training transfer visible during normal management activities.

Employees should also have an active role in this process. They can identify which training content is relevant to their current responsibilities and report difficulties during application. This information can help supervisors understand whether a problem comes from individual skill, work conditions, or unclear expectations. Employees should not be expected to solve every transfer problem themselves, but their experience should be part of the follow-up process.

A long-term connection between follow-up and performance also requires information to move back to the training department. If supervisors repeatedly report that employees understand a skill but have difficulty using it, the training department can review the course design. More practical exercises may be needed, or the training content may need to be presented in a way that is closer to actual work situations. If the problem comes from work procedures rather than employee ability, organizational adjustments may be more appropriate than additional training.

This creates a more useful division of responsibilities. The training department provides the learning framework and follow-up support. Supervisors connect training with daily work and observe application. Employees practice new skills and provide feedback about their experience. Managers can consider whether the new behaviors support broader work requirements. No single group needs to manage the entire transfer process alone.

The connection with organizational performance should also remain flexible. Different types of training will produce different kinds of outcomes. Technical training may influence work accuracy or task completion. Customer service training may affect communication quality and complaint handling. Management training may influence team coordination and employee interaction. The follow-up process should reflect these differences rather than applying one performance indicator to every training program.

In this way, post-training follow-up can become part of ordinary performance management without losing its original purpose. The focus remains on helping employees use what they have learned, while the organization gradually gains information about whether the new behaviors support actual work requirements. Training transfer then becomes a continuing process that links individual learning with workplace practice and organizational needs.

6. Conclusion

The connection between post-training follow-up and training transfer has a direct influence on the practical value of employee training. Formal training can provide employees with new knowledge and skills, but learning alone does not guarantee changes in workplace behavior. Employees need opportunities to use what they have learned, support from supervisors, timely feedback, and working conditions that allow new behaviors to continue.

Several problems can weaken this connection. Training and follow-up may be planned separately, leaving employees without clear application goals after the course. Responsibilities may also be unclear among training departments, supervisors, and employees. Even when employees are willing to apply new skills, workload, existing procedures, performance requirements, and workplace habits may make application difficult. Some organizations also rely too much on tests and satisfaction surveys, which provide limited information about actual workplace transfer. Weak or delayed feedback makes it harder for employees to correct problems during the early stages of application.

Improvement should focus on making follow-up part of the training process rather than treating it as an activity that begins after training has ended. Training objectives can include specific workplace behaviors, and employees can prepare simple application plans before returning to work. Supervisors can provide suitable work opportunities, observe performance, and offer practical coaching. Short and regular follow-up activities can help employees maintain contact with the training content without creating excessive administrative work.

The workplace itself also needs to be considered. When employees cannot use new skills because of workload, outdated procedures, limited resources, or conflicting performance targets, additional training may not solve the problem. Follow-up should help identify these organizational barriers and provide information for adjustments. Evaluation should focus not only on what employees remember but also on whether they use the relevant skills and behaviors in their normal work. A stronger connection between follow-up and training transfer can be built through a continuous process of training, workplace application, follow-up, feedback, adjustment, and continued practice. Such a process gives employees a clearer path from learning to action and gives organizations better information about the actual value of their training activities.

References

- Baldwin, T. T., & Ford, J. K. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology*, 41(1), 63–105.
- Holton, E. F., III. (1996). The flawed four-level evaluation model. *Human Resource Development Quarterly*, 7(1), 5–21.
- Burke, L. A., & Hutchins, H. M. (2007). Training transfer: An integrative literature review. *Human Resource Development Review*, 6(3), 263–296.
- Baldwin, T. T., Ford, J. K., & Blume, B. D. (2009). Transfer of training 1988–2008: An updated review and agenda for future research. *International Review of Industrial and Organizational Psychology*, 24, 41–70.
- Blume, B. D., Ford, J. K., Baldwin, T. T., & Huang, J. L. (2010). Transfer of training: A meta-analytic review. *Journal of Management*, 36(4), 1065–1105.
- Grossman, R., & Salas, E. (2011). The transfer of training: What really matters. *International Journal of Training and Development*, 15(2), 103–120.
- Gegenfurtner, A. (2011). Motivation and transfer in professional training: A meta-analysis of the moderating effects of knowledge type, instruction, and assessment conditions. *Educational Research Review*, 6(1), 1–13.
- Hutchins, H. M., & Burke, L. A. (2007). Identifying trainers' knowledge of training transfer research findings—Closing the gap between research and practice. *International Journal of Training and Development*, 11(4), 236–264.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

Problems and Improvement Strategies in Working Time Management for Food Delivery Platform Riders

Song Yan¹

¹ Shandong Technology and Business University, Shandong 264005, China

Correspondence: Song Yan, Shandong Technology and Business University, Shandong 264005, China.

doi:10.63593/FMS.2788-8592.2026.07.004

Abstract

Working time management is an important part of food delivery platform operations. Digital platforms organize riders' work through order allocation, delivery time estimation, route planning, and performance evaluation. These methods improve delivery efficiency but also create problems in working time recognition, workload control, rest arrangements, and management responsibility. Riders often spend time waiting for orders, handling restaurant delays, and remaining available for assignments, yet these activities may not be adequately reflected in working time records. Strict delivery deadlines and income incentives can also increase work intensity and encourage extended working hours. This paper examines the characteristics of riders' working time and identifies the main problems in platform management. It analyzes the organizational factors contributing to these problems and their effects on riders and platform operations. Improvements are proposed in working time classification, delivery scheduling, rest management, performance evaluation, and responsibility allocation. Effective working time management should recognize actual working conditions, establish reasonable delivery requirements, and provide riders with greater opportunities to communicate with platform managers. These measures can help reduce excessive work pressure, improve operational coordination, and support sustainable platform management.

Keywords: food delivery platforms, delivery riders, working time management, algorithmic management, work intensity, labor management

1. Introduction

Food delivery platforms have changed the organization of urban delivery services. Customers can place orders through mobile applications, restaurants can receive orders through digital systems, and delivery riders complete transportation tasks according to real-time information. Platforms coordinate these activities through order allocation, route planning, delivery time estimation, and performance evaluation. This arrangement makes large-scale delivery operations possible, but it also changes how riders' working hours are organized and controlled.

Working time is closely related to delivery efficiency, customer satisfaction, rider income, and operational costs. Customers expect their orders to arrive within the estimated delivery period, while riders must collect and transport food within the time available. Platforms need to coordinate restaurant preparation, rider availability, and customer demand. Working time management therefore involves more than recording attendance. It includes decisions about order distribution, delivery deadlines, waiting periods, workload, and rest arrangements.

Food delivery riders do not always follow fixed working schedules. Some riders work under shifts arranged by delivery stations or contracted service providers, while others choose when to log into the platform and accept assignments. Flexible arrangements allow riders to organize their working hours according to personal circumstances, but their actual control over working time may be limited by income expectations, delivery

deadlines, and performance requirements. A rider may be free to decide when to start working but have limited flexibility after accepting several orders.

The distinction between working time and personal time is particularly difficult in platform delivery services. Riders may remain online while waiting for assignments, travel between service areas, or spend additional time collecting food from restaurants. These activities do not always produce completed orders, although they are closely connected with delivery work. Zhang and Yan (2024) examined the availability time of food delivery riders in Beijing and identified difficulties in defining and protecting work-related waiting periods. Their findings suggest that working time should be evaluated according to the restrictions imposed on riders rather than relying only on completed delivery records.

Digital management introduces further challenges. Platforms continuously collect information about riders' locations, delivery progress, and service performance. Such information supports operational decisions but can also increase management control over riders' working pace. Chen (2022) explains that digital systems influence riders' labor processes through time estimation, route planning, and quantitative evaluation. The application functions not only as a working tool but also as an important mechanism of labor management.

The main challenge is to balance operational efficiency with reasonable working arrangements. Excessive emphasis on delivery speed may encourage long working hours and insufficient rest, while poorly designed restrictions may reduce riders' flexibility and income opportunities. Effective working time management requires a clearer understanding of actual working activities, more realistic scheduling rules, and better coordination among platforms, service providers, and riders.

2. Characteristics and Current Management of Riders' Working Time

Working time on food delivery platforms differs from conventional fixed working schedules. Riders perform tasks in changing locations, and the number of assignments varies throughout the day. A rider may complete several deliveries during lunch hours but spend considerable time waiting for orders during quieter periods. Delivery distance, restaurant preparation speed, traffic conditions, and customer accessibility also influence the time required for each assignment. These characteristics make working time difficult to evaluate through attendance records or completed order numbers alone.

Riders' working time generally includes active delivery, order-related waiting, required availability, and preparation activities. Active delivery covers traveling to restaurants, collecting food, transporting orders, and completing customer handovers. Waiting occurs when riders remain available for assignments or when restaurants have not finished preparing orders. Preparation activities may include checking vehicles, organizing delivery equipment, and reviewing operational instructions. These activities differ in their relationship to platform control and should not necessarily be classified in the same way.

Availability time is particularly important because riders may remain ready to work without completing an order. A rider who must stay within a designated delivery area and respond to assignments has less freedom than someone who can disconnect from the platform and use the time independently. Zhang and Yan (2024) emphasize that the nature of availability time depends partly on the degree of control exercised over workers. From a management perspective, this distinction helps explain why online duration and active delivery time cannot be treated as interchangeable measures.

Working arrangements also differ among rider groups. Scheduled riders may follow fixed shifts established by delivery stations, while crowdsourced riders usually have greater freedom to determine when they work. Scheduled arrangements help platforms maintain delivery capacity during busy periods, but they may require riders to remain available when demand is low. Flexible arrangements offer more personal control, although the need to obtain sufficient earnings can encourage riders to remain online for extended periods. The difference between scheduled and flexible work should therefore influence attendance requirements, rest arrangements, and workload assessment.

Digital systems play a central role in managing these activities. Platforms use information about rider locations, restaurant preparation, delivery distances, and customer destinations to allocate orders and estimate completion times. They also record delivery results and assess performance through indicators such as punctuality, completed order volume, and customer feedback. These functions improve coordination and reduce the need for continuous direct supervision. However, digital records primarily capture information that can be measured through applications. They may not fully explain why a delivery was delayed or whether a rider had a meaningful opportunity to rest.

Income arrangements further influence working time. Many riders receive earnings linked to completed orders, creating an incentive to remain active during periods of high demand. This arrangement can improve productivity, but it may also encourage workers to extend their working hours. During quiet periods, riders may need to wait longer to obtain sufficient assignments, while busy periods can involve continuous deliveries and

limited opportunities for recovery. The same number of online hours can therefore represent very different levels of work intensity.

Recent platform practices indicate growing attention to these issues. Meituan has publicly described fatigue-prevention measures, including reminders after accumulated delivery activity and restrictions on continued assignments after extended working periods. Its 2026 disclosure also described adjustments to delivery time estimation and measures intended to reduce unnecessary pressure on riders (Meituan, 2026). These practices show that digital systems can support both operational efficiency and working time protection. Their effectiveness, however, depends on whether the underlying rules reflect actual working conditions.

A reasonable working time management system should distinguish the period riders spend completing assignments from the time they remain available under management requirements. It should also recognize differences in work intensity and rider arrangements. Without these distinctions, platforms may have detailed operational information but still lack an accurate understanding of how working hours affect riders.

3. Main Problems in Working Time Management

3.1 Unclear Recognition of Working Time

The incomplete recognition of work-related time is a major problem in food delivery management. Platforms can record when orders are accepted and completed, but these records do not necessarily represent all the time riders devote to delivery work. Riders may remain online while waiting for assignments, travel to areas with higher demand, or spend additional time at restaurants. These activities can be necessary for completing delivery tasks, yet they may not be adequately reflected in workload assessments.

The difficulty is particularly evident when waiting time is treated as personal leisure. A scheduled rider may be required to remain available throughout a shift even when no order is assigned. During this period, the rider may be unable to leave the designated service area or engage freely in personal activities. By contrast, a crowdsourced rider who can reject assignments and disconnect from the platform retains greater control over waiting time. Treating these situations identically overlooks the differences in management restrictions.

Working time records may also serve different purposes. Online duration can be used to monitor attendance, completed orders may determine earnings, and active delivery time may influence performance evaluation. Each indicator captures part of the working process, but problems arise when management uses one indicator to represent overall labor input. A rider may spend many hours available for work while receiving relatively few assignments. If only completed orders are considered, the rider's actual time commitment may be underestimated.

Restaurant waiting time presents a similar problem. When food preparation takes longer than expected, the rider cannot complete the assignment or immediately begin another unrelated task. If the delay is attributed to the rider, performance records may become inaccurate. Zhang and Yan (2024) demonstrate the importance of distinguishing availability from personal time, while their findings also indicate that conventional working time arrangements do not fully address the characteristics of platform employment. Clearer time classification is necessary to reduce disagreements about workload, attendance, and rest.

3.2 Delivery Deadlines and Performance Pressure

Delivery time estimation is essential for organizing orders and informing customers, but unreasonable deadlines can increase riders' working pressure. Platforms usually estimate delivery time according to distance, route conditions, restaurant information, and available riders. These estimates provide a basis for scheduling, although actual delivery conditions may differ from the information available when an order is assigned.

Traffic congestion, bad weather, delayed food preparation, and difficulties entering residential buildings can extend delivery time. When the system does not adequately adjust the deadline, riders may need to complete the remaining task within an increasingly limited period. This creates pressure to increase travel speed, reduce breaks, or choose more demanding routes. The pressure may arise from performance expectations even when no supervisor directly instructs the rider to work faster.

The problem becomes more complicated when riders handle several orders simultaneously. Multi-order delivery can improve efficiency by reducing repeated travel, but delays in one assignment may affect the remaining orders. A rider collecting food from two restaurants may encounter a preparation delay at the first location, leaving insufficient time for subsequent deliveries. If the allocation system does not recognize these dependencies, the rider may face several overlapping deadlines.

Chen (2022) identifies digital control as an important feature of platform labor management. Time estimates, route planning, and quantitative assessments influence workers' behavior through application-based instructions. This indicates that management pressure can be created through system design rather than direct supervision. When estimated delivery time becomes a rigid performance target, riders may have limited opportunities to

respond to unexpected situations.

Performance evaluation can reinforce these problems. Punctuality and completed order volume provide useful information about delivery operations, but they do not always reflect individual effort or responsibility. A rider may receive a negative evaluation because a restaurant prepares food late or a customer provides an inaccurate address. If the platform does not distinguish these circumstances, its assessment may attribute operational problems to individual workers.

Yan et al. (2025) discuss the relationship between platform management, rider risks, and the responsibilities of different participants in delivery services. Their analysis indicates the importance of connecting performance management with risk prevention and responsibility allocation. Delivery speed should remain an operational concern, but it should not become the only measure of rider performance.

3.3 Long Working Hours and Insufficient Rest

Long working hours are closely connected with income arrangements and changing delivery demand. Riders who receive earnings mainly from completed orders may choose to work through several busy periods to increase their daily income. Others may extend their working day because low demand has reduced their expected earnings. Although these decisions appear voluntary, they are influenced by the structure of platform work and the opportunities available to riders.

Extended working hours can increase fatigue, particularly when riders complete repeated assignments with limited breaks. Delivery work requires attention to traffic, navigation instructions, customer communication, and order handling. Physical and mental demands may accumulate during long working periods, reducing opportunities for recovery and increasing pressure during subsequent assignments.

A further difficulty concerns the distinction between waiting and rest. A rider who remains online between assignments may temporarily stop moving but still need to monitor notifications and respond quickly to new orders. Such periods do not necessarily provide the same recovery as uninterrupted breaks. If a platform treats every interval without an active order as rest, it may overestimate the rider's actual recovery time.

Fatigue-prevention measures can address some of these problems. Meituan's published management arrangements include rest reminders and restrictions on continued assignments after extended delivery activity (Meituan, 2026). However, working duration alone cannot fully represent fatigue. Two riders may work for the same number of hours while completing assignments with very different physical demands. Long-distance deliveries, difficult weather conditions, and repeated high-frequency assignments can produce different levels of exhaustion.

Rest management must also consider income expectations. Riders may resist compulsory breaks if they believe that restrictions prevent them from earning sufficient income. A system that introduces time limits without considering workload distribution and earnings opportunities may reduce excessive hours but create other difficulties. Effective rest management should combine reasonable limits with practical opportunities for recovery and fair working arrangements.

4. Organizational Factors Contributing to Working Time Problems

Working time problems are closely related to the management objectives and organizational structures of food delivery platforms. Delivery services depend on rapid coordination between restaurants, riders, and customers. Platforms must maintain sufficient delivery capacity while controlling operational costs and meeting customer expectations. These requirements encourage the use of measurable performance indicators, particularly delivery speed, completed order volume, and punctuality. Although such indicators improve management efficiency, problems arise when they become more important than the actual conditions under which work is completed.

The emphasis on delivery efficiency can influence both scheduling and rider behavior. Platforms benefit when orders are completed quickly, while riders may increase their earnings by completing more assignments. These incentives can encourage longer working hours and faster delivery. However, higher order volume does not always indicate better management. A rider may complete additional deliveries by extending the working day rather than improving productivity. If management does not distinguish between these situations, excessive labor input may be mistaken for operational efficiency.

Digital management also has limitations. Platforms possess detailed information about order acceptance, delivery progress, and customer evaluations, but these records do not always explain the causes of delays. A rider who remains stationary near a restaurant may be waiting for food rather than resting or avoiding work. An assignment completed after its estimated deadline may reflect traffic congestion or building access problems rather than poor performance. When systems rely heavily on recorded outcomes without considering their causes, management decisions may become inaccurate. Chen (2022) demonstrates how digital technology allows platforms to control labor processes through continuous information collection and evaluation. The effectiveness

of this control depends on the quality of the information used and the fairness of management rules.

The division of responsibilities between platforms and service providers creates further difficulties. Platforms may determine order allocation and delivery requirements, while contracted agencies arrange shifts, supervise riders, and handle routine management matters. A rider's working hours may therefore be influenced by decisions made by several organizations. For example, a service provider may require attendance during a fixed shift, while the platform continues assigning orders near the end of that period. If excessive working hours result, responsibility may become unclear.

Zhao and Luo (2024) examined outsourced delivery arrangements and identified tensions between platform companies, contractors, supervisors, and workers. Their findings show that organizational divisions can complicate labor management even when individual responsibilities appear clearly defined. A service provider may control attendance but lack authority to change delivery deadlines. The platform may control algorithmic rules but have limited involvement in local scheduling. Without coordination, problems can remain unresolved because no single organization takes responsibility for the complete working process.

Limited rider participation also contributes to management difficulties. Riders possess practical knowledge about difficult routes, restaurant delays, building access, and working conditions, but their experience may not be fully reflected in platform rules. Digital systems can identify repeated delays but may not explain the local circumstances causing them. If riders lack effective channels for providing feedback, inaccurate time estimates and unreasonable workload arrangements may continue. Better communication between riders, supervisors, and platform managers is therefore necessary to improve working time decisions.

5. Effects on Riders and Platform Operations

Working time management problems affect riders' physical condition, psychological well-being, income expectations, and relationships with platform management. Long working periods and demanding delivery schedules can increase fatigue. Riders need to remain attentive to traffic conditions, navigation instructions, and customer communication while traveling between different locations. Insufficient rest may reduce concentration and make ordinary delivery difficulties harder to manage. When workers face strict deadlines, they may feel pressure to maintain their working pace even when tired.

Unreasonable time requirements can also increase psychological pressure. Riders may worry about late deliveries, negative customer evaluations, or reduced earnings. These concerns become more serious when delays arise from circumstances outside their control. A rider who repeatedly encounters restaurant preparation problems may become dissatisfied if the resulting delays affect performance scores. When working conditions are not accurately reflected in management decisions, riders may regard the evaluation system as unfair.

Working time problems can affect income stability and work-life balance. Riders who experience low order demand may remain online for longer periods to reach their expected earnings, while those working during busy periods may have difficulty taking breaks. The uncertain relationship between online duration and completed orders can make daily income difficult to predict. For riders who depend heavily on delivery work, this uncertainty may encourage extended availability and reduce the time available for personal responsibilities.

These problems also influence organizational relationships. Workers who experience repeated disputes about attendance, deadlines, or rest arrangements may become less willing to cooperate with management. In outsourced arrangements, unclear responsibility can further weaken trust. Riders may report a scheduling problem to a station supervisor who cannot change the platform's assignment rules, while the platform may regard attendance arrangements as the responsibility of the contractor. Repeated transfers of responsibility can increase dissatisfaction and delay the resolution of practical problems.

From the platform's perspective, excessive working hours do not necessarily produce better long-term performance. Fatigue and time pressure may increase delivery mistakes, customer complaints, and communication difficulties. Riders may overlook order instructions, make navigation errors, or have insufficient time to handle unexpected customer requests. These problems create additional work for customer service and operational managers, reducing some of the efficiency gained through faster scheduling.

Poor working time management may also affect workforce stability. Riders who repeatedly experience excessive workloads or unfair evaluations may reduce their working hours or leave the platform. Replacing experienced workers requires additional recruitment, training, and local operational adjustment. New riders need time to become familiar with service areas, application functions, and delivery procedures. Frequent personnel changes can reduce the consistency of local delivery operations and increase pressure on remaining workers.

The relationship between working conditions and operational performance is therefore important. A platform that relies heavily on long working hours may achieve a high number of completed orders in the short term but face higher management costs and reduced service stability over time. Reasonable scheduling, adequate rest, and fair

performance assessment can support more consistent delivery quality. Improving riders' working conditions is not separate from operational management; it is part of maintaining a reliable delivery service.

6. Improvement Strategies for Working Time Management

6.1 Improve Working Time Records and Delivery Scheduling

A clearer system for recording and classifying working time is necessary to improve platform management. Online duration and completed order time should not be treated as equivalent measures because they represent different aspects of delivery work. Platforms should distinguish active delivery, required availability, voluntary waiting, and genuine rest according to the activities performed and the degree of management control involved.

Active delivery records should cover the full process of an assigned order, including travel to the restaurant, food collection, transportation, and delivery confirmation. Time spent waiting for food after accepting an order should be identified as part of the delivery process rather than treated as unexplained inactivity. Required availability should also be recorded when riders must remain online or within a designated area under attendance rules. Such distinctions can help managers evaluate workload more accurately and reduce disputes concerning time records.

Different rider arrangements require appropriate management standards. Scheduled riders may need attendance records that include required waiting periods, while crowdsourced riders may require clearer distinctions between voluntary online activity and assigned work. A rider who can freely reject orders and disconnect from the platform should not automatically be treated in the same way as someone required to remain available throughout a shift. Zhang and Yan (2024) emphasize the importance of considering actual restrictions when evaluating availability time. This principle provides a practical basis for developing more reasonable records and scheduling rules.

Delivery time estimation should also reflect the conditions affecting individual assignments. Distance alone cannot explain how long a delivery will take. Restaurant preparation, traffic congestion, weather, building access, and customer communication may all influence completion time. Platforms can examine historical delivery information to identify locations and circumstances associated with repeated delays. Where difficulties are predictable, estimated delivery periods should reflect them rather than requiring riders to compensate through increased speed.

Order allocation should consider the relationship between assigned tasks. Multi-order delivery can improve efficiency when pickup locations and destinations are compatible, but it may create pressure when assignments have conflicting deadlines. The system should evaluate remaining delivery time, restaurant readiness, route conditions, and the rider's current workload before assigning additional orders. Riders should also have accessible methods for reporting unexpected delays or requesting changes when an assignment becomes difficult to complete safely.

Meituan's 2026 disclosure described improvements to time estimation, the handling of difficult deliveries, and algorithmic management rules (Meituan, 2026). These measures provide examples of how delivery platforms can adjust operational systems to reduce unnecessary pressure. The key management objective should be reliable delivery rather than continuously reducing estimated completion times. More accurate scheduling can reduce avoidable delays while allowing riders to organize their work at a reasonable pace.

6.2 Strengthen Rest Management and Improve Performance Evaluation

Rest arrangements should be incorporated into ordinary delivery operations. Platforms can use digital records to identify extended working periods and provide reminders when riders may need recovery time. However, reminders are more effective when supported by practical scheduling arrangements. A rider who receives a rest notification but continues receiving urgent assignments may find it difficult to stop working. The platform should provide a clear option for temporarily suspending new orders without creating unnecessary performance disadvantages.

Rest management should consider both working duration and work intensity. Riders who complete repeated long-distance deliveries or work under difficult weather conditions may experience fatigue before reaching a fixed daily time limit. Working duration can provide a basic warning indicator, while recent assignment patterns can help identify periods of unusually high workload. Platforms should avoid treating every interval without an active order as sufficient rest, particularly when riders remain required to respond to assignments.

For scheduled riders, delivery stations can arrange planned breaks according to expected demand. Managers should coordinate staffing so that workers can take meaningful rest without leaving service areas severely understaffed. Crowdsourced riders may require more flexible arrangements, including reminders and simple application functions for pausing assignments. Rest policies should also consider the relationship between working hours and earnings. If workers can obtain reasonable income only by remaining active for excessively long periods, fatigue-prevention measures may encounter difficulties.

Performance evaluation should be adjusted alongside rest management. Delivery punctuality remains relevant, but it should not be the only indicator used to assess riders. Platforms need to distinguish between delays caused by rider behavior and those resulting from restaurant preparation, inaccurate addresses, traffic restrictions, or other operational difficulties. When the cause of a delay is outside the rider's reasonable control, performance records should be corrected or evaluated accordingly.

Completed order volume should also be interpreted carefully. A rider who completes more assignments may have worked longer hours or received more favorable routes rather than demonstrated greater efficiency. Performance management should consider reliable order handling, appropriate customer communication, compliance with safety procedures, and the ability to complete accepted assignments responsibly. Yan et al. (2025) highlight the importance of coordinating operational requirements with rider-related risks and platform responsibilities. Their discussion supports a broader approach to evaluating delivery performance.

Income incentives can further support reasonable working arrangements. Reward systems that depend heavily on continuously increasing order numbers may encourage extended working hours. Platforms can reduce this pressure by placing greater emphasis on consistent service quality and responsible delivery behavior. Payment rules should also be transparent so that riders understand how distance, task difficulty, and waiting conditions affect earnings where these factors are included in compensation arrangements.

An effective evaluation system should include accessible appeal procedures. Riders should be able to report inaccurate time records, unusual delivery conditions, or performance penalties that do not reflect actual circumstances. Managers should review relevant order information and provide clear explanations of decisions. When riders believe that performance assessments are reasonable and corrections are possible, they may be more willing to follow platform management rules.

6.3 Clarify Management Responsibilities and Strengthen Rider Participation

Working time management requires clear coordination between platform enterprises and delivery service providers. Platforms should take responsibility for the rules and systems they control, including order allocation, delivery deadlines, and platform-based performance indicators. Service providers should manage the tasks assigned to them, including shift arrangements, attendance administration, and direct supervision. Where working time problems involve both organizations, responsibility should be coordinated rather than transferred between them.

Cooperation agreements should explain how working time information is shared and how disputes are resolved. A platform may possess detailed records of delivery assignments, while a service provider maintains attendance and shift information. Combining relevant information can help managers identify excessive working periods or conflicts between scheduled hours and actual assignments. Information sharing should remain limited to legitimate management needs and follow appropriate data protection requirements.

Platforms should also establish minimum working time management requirements for cooperating service providers. These may include accurate attendance records, reasonable rest arrangements, procedures for handling excessive workloads, and clear communication channels. Service providers should not be evaluated solely through delivery volume if meeting performance targets encourages excessive working hours. Workforce stability, complaint handling, and compliance with working time requirements should also form part of management assessment.

Zhao and Luo (2024) show that outsourced delivery arrangements can create tensions among platforms, contractors, supervisors, and workers. Reducing these tensions requires connecting responsibility with actual decision-making authority. A station supervisor should not be expected to resolve problems caused entirely by platform algorithms without support from the organization controlling those rules. Similarly, platforms should not overlook excessive working hours simply because contractors manage rider attendance.

Rider participation can improve the accuracy of working time management. Riders have direct experience of difficult routes, restaurant delays, building access problems, and demanding delivery periods. Platforms should provide accessible channels through which workers can report these conditions and suggest practical changes. Feedback functions within applications, regular station discussions, and communication with rider representatives can help identify recurring problems that digital records alone may not explain.

Feedback should lead to management responses. If riders repeatedly report that a particular residential complex requires additional delivery time, managers can review the relevant route information and consider adjusting estimates. If several workers report that scheduled breaks are regularly interrupted, the service provider should examine staffing arrangements rather than treating each complaint as an isolated incident. Such responses can improve operational coordination and demonstrate that rider experience contributes to management decisions.

Platforms should also explain important working time rules in clear language. Riders need to understand how

delivery deadlines are determined, when rest requirements apply, and how delays affect performance evaluation. They should have access to information about changes that may influence their workload or earnings. Clear explanations can reduce misunderstandings and improve cooperation between workers and managers.

Working time management should be evaluated regularly through both operational information and rider feedback. Relevant indicators include the accuracy of working time records, patterns of extended working hours, the frequency of interrupted breaks, delivery delay causes, and the handling of complaints. Managers should examine unusual cases rather than relying only on average results, because acceptable overall figures may conceal repeated excessive workloads among particular rider groups.

Effective management does not require every rider to follow an identical schedule. Food delivery services involve different working arrangements, service areas, and demand patterns. The management system should preserve reasonable flexibility while preventing working time requirements from creating unnecessary pressure. Clear time records, realistic delivery deadlines, meaningful rest arrangements, fair performance assessment, and coordinated responsibility can help platforms maintain service quality without relying on excessively long working hours.

References

- Chen, L. (2022). Labor order under digital control: Research on labor control of take-out platform riders. *The Journal of Chinese Sociology*, 9, Article 17. <https://doi.org/10.1186/s40711-022-00171-4>
- Meituan. (2026, May 8). *Meituan continues to improve algorithmic management mechanisms for the platform ecosystem*. <https://www.meituan.com/news/NN260508192002553>
- Yan, Y., Li, D., Liu, Z., Chen, N., Xu, B., & Wang, M. (2025). Technology empowerment and responsible governance: Optimization path and empirical research on the tripartite game of takeaway platforms. *Journal of Business and Marketing*, 2(1), 106–112. <https://doi.org/10.62517/jbm.202509114>
- Zhang, Y., & Yan, D. (2024). Legal protection for gig workers' availability time: An empirical study of take-out platform riders in Beijing. *Employee Relations: The International Journal*, 46(1), 133–146. <https://doi.org/10.1108/ER-06-2022-0268>
- Zhao, B., & Luo, S. (2024). The old conflict in the new economy? Courier resistance on outsourcing platforms in China. *The China Quarterly*, 258, 495–512. <https://doi.org/10.1017/S0305741023001467>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

Research on the Implementation Mechanism of Live-Streaming E-Commerce and Social Media Content Marketing for DTC Brands — From the Perspective of Media Affordances and Multi-Stage Conversion Chain

Meiying Jin¹

¹ Griffith University, Southport, QLD 4222, Australia

Correspondence: Meiying Jin, Griffith University, Southport, QLD 4222, Australia.

doi:10.63593/FMS.2788-8592.2026.07.005

Abstract

Existing research on DTC marketing mostly decouples the marketing functions of social media and live-streaming e-commerce. Prior literature focuses on short-term transaction conversion yet ignores the stage-asymmetric effects of media affordances across consumers' full-link journey, and thus cannot explain the industry pain point of "soaring live-stream GMV alongside low repurchase and brand loyalty" among cross-border health consumer goods. Combining media affordance theory and parasocial interaction theory, this paper constructs a multi-stage conversion analytical framework and establishes a four-stage user conversion chain. Empirical analysis is conducted based on multi-source data including social-media texts, live-streaming datasets, consumer questionnaires and enterprise operational panel data. The results show that pre-live-stream social-media priming significantly improves users' brand awareness; social media and live-streaming present a temporal complementary relationship, which effectively boosts user retention and repurchase without inhibiting short-term GMV. This study verifies the validity of the chained-mediation mechanism, identifies three high-user-value realization configurations (Treem, J. W., & Leonardi, P. M., 2016), and clarifies the dual-media synergy mechanism and its implementation boundaries. It provides a quantitative reference paradigm for marketing practices of cross-border health DTC brands.

Keywords: DTC brand, live-streaming e-commerce, social-media content marketing, media affordances, parasocial interaction, multi-stage conversion chain, LDA topic model, cross-border health consumer goods

1. Introduction

1.1 Research Background and Problem Formulation

The dual-media model integrating social media and live-streaming serves as the mainstream marketing form for cross-border health DTC brands going global, supporting major revenue growth and traffic expansion in the industry. Although this model can deliver explosive short-term GMV — top brands can achieve a 120%-280% growth in a single live-stream session — it creates a notable marketing paradox: users acquired via live-streaming record merely a 4.2%-6.8% 30-day repurchase rate, resulting in severe deficiency in long-term user value. Meanwhile, 83.6% of global-going brands suffer from ambiguous media positioning (Volkoff, O., & Strong, D. M., 2013), disordered temporal scheduling and insufficient cross-cultural adaptation.

Prior studies mostly examine the independent effects of the two media in isolation, lacking full-link temporal analysis covering "awareness-building & seeding-activation-conversion-repurchase". They fail to verify the stage-asymmetric effects of media affordances, and there is limited vertical empirical evidence for the high-trust and high-compliance health sector. Accordingly, this paper explores the temporal synergy mechanism of dual

media, the moderating effect of pre-live-stream social-media priming, as well as the boundary conditions of marketing performance.

1.2 Domestic and International Literature Review and Comments

- 1) **Domestic and international research status:** Existing DTC marketing literature prioritizes short-term traffic conversion while overlooking mechanisms for user retention throughout the entire user life cycle. Media affordance theory and parasocial interaction theory are mostly applied to general e-commerce scenarios, with scarce dynamic stage-based analysis under cross-border and cross-cultural contexts. No consensus has been reached in dual-media research; most studies test single-media effects independently without chained empirical evidence for temporal synergy and pre-live-stream empowerment. Furthermore, targeted research on the vertical health-consumer-goods sector characterized by high compliance requirements and high trust demands remains scarce.
- 2) **Literature comments:** Current research generally suffers from fragmented media mechanism analysis, absence of temporal investigation, insufficient vertical-scenario adaptation and inadequate cross-cultural empirical evidence. Such limitations prevent existing scholarship from adequately interpreting the marketing paradox of cross-border health DTC brands, which defines clear research gaps and innovation entry points for this study.

1.3 Research Methodology

This paper adopts a mixed qualitative-quantitative approach for multi-dimensional empirical analysis, including LDA text topic mining, content coding analysis, panel time-series regression, SEM (structural equation modeling) and multi-case temporal tracking. By integrating big text data, operational panel datasets, consumer questionnaires and case materials, a multi-source-data triangulation system is constructed to mitigate bias originating from single-method reliance and ensure robust and reliable conclusions.

1.4 Research Innovations

- 1) **Theoretical innovation:** This paper establishes a four-stage conversion-chain framework for cross-border health DTC brands, reveals the stage-asymmetric effects of media affordances, improves the theoretical system for dual-media temporal synergy, and fills theoretical gaps for this vertical sector.
- 2) **Methodological innovation:** It combines text mining, time-series econometrics, structural equation modeling and case tracking to realize cross-validation across multi-source data. The approach breaks the limitations of single-perspective empirical research and enhances research accuracy and credibility.
- 3) **Practical innovation:** From a temporal-synergy perspective, it explains the root causes of the industry-wide pain point of “explosive live-stream sales paired with low repurchase rates”. Differentiated marketing implementation modes and their applicable boundaries are summarized, delivering practical paradigms for refined long-term operations of global-going health DTC brands.

2. Theoretical Foundation and Conceptual Model

2.1 Core Theories

2.1.1 Media Affordance Theory

Informational affordance focuses on outputting objective information such as product ingredients, health-science popularization and usage scenarios to mitigate consumers’ information asymmetry. **Interactive affordance** enables real-time Q&A via comment sections and live-stream bullet comments to resolve product-related doubts. **Social-emotional affordance** builds value resonance and community belongingness to strengthen consumers’ emotional attachment toward brands. Short-video content on social media demonstrates higher efficiency in releasing informational affordance, whereas live-streaming media holds natural advantages in interactive affordance. Both media can activate social-emotional affordance, yet their effective time windows differ.

2.1.2 Parasocial Interaction Theory

Within cross-border online contexts where offline brand-consumer contact is absent, consumers develop parasocial interaction perceptions through sustained exposure to social-media content and live-streaming hosts. Such perceptions further enhance perceived brand authenticity and reduce trust risks associated with health products, serving as a critical mediating path linking media attributes to consumer behaviors.

2.1.3 DTC Four-stage Conversion Chain

- 1) **Awareness-building & seeding stage:** Users form basic perceptions of products and brands. Core indicators include exposure volume and awareness penetration rate.
- 2) **Activation & conversion stage:** Consumers’ purchase intentions are awakened. Indicators include click-through volume, consultation volume and add-to-cart willingness.

- 3) **Transaction completion stage:** Actual orders are generated. Indicators cover GMV and order-placement conversion rate.
- 4) **Private-domain repurchase and brand-loyalty stage:** This stage reflects long-term user value. Indicators involve 7-day retention rate, 30-day repurchase rate and user LTV (lifetime value). The four stages follow a temporally progressive relationship; outputs from the preceding stage shape performance of the subsequent stage.

2.2 Construction of the Conceptual Model

This paper builds an integrated conceptual model: Media Affordances → Stage-specific Psychological Perceptions → Multi-stage Conversion Performance. Independent variables are the three-dimensional affordances of social media and three-dimensional affordances of live-streaming e-commerce. Mediating variables, constituting a chained-mediation path, encompass product cognition, emotional resonance, parasocial interaction and perceived brand authenticity. Moderating variables include pre-live-stream social-media priming, product-category involvement and cross-cultural content adaptability. Dependent variables are multiple sets of conversion-performance indicators corresponding to the four stages. A foundational theoretical formula is proposed for quantifying the functional logic of core variables:

$$Perf_{stage} = f(Aff_{social}, Aff_{live}, Psycho, Mod)$$

Where:

$Perf_{stage}$ denotes consumer conversion performance at each of the four stages;

Aff_{social} and Aff_{live} represent the three-dimensional media affordances of social media and live-streaming e-commerce respectively;

$Psycho$ refers to consumers' chained psychological-perception mechanism;

Mod stands for moderating variables: pre-live-stream priming, product-category involvement and cross-cultural adaptability.

The overall logic is as follows: activation of affordances from different media sequentially alters consumers' psychological perceptions, thereby exerting asymmetric influences on conversion performance at distinct stages. Moderating variables adjust path strength; pre-live-stream social-media priming further moderates output outcomes of live-streaming marketing.

2.3 Variable Definition and Operationalization

Table 1. Operational Definition of Variables

Variable Category	Variable Name	Measurement Approach
Independent Variable	Three-dimensional affordances of social media	Adapted from mature scales; three dimensions: informational, interactive and social-emotional; 1-5 Likert scale; objective corroboration through feature extraction from text data
Independent Variable	Three-dimensional affordances of live-streaming e-commerce	Same framework; items revised for live-stream scenarios; objective measurement via content coding of platform live-stream replays
Mediating Variable	Product cognition, emotional resonance, parasocial interaction, perceived brand authenticity	5-point Likert scale for chained-mediation paths; micro-level perception data collected from questionnaires
Moderating Variable	Pre-live-stream social-media priming	Continuous variable: weighted score calculated based on content-posting frequency and content engagement within four weeks prior to live-streaming (0-100)
Moderating Variable	Product-category involvement, cross-cultural content adaptability	Combined measurement via questionnaire scales and content coding
Dependent Variable	Multi-stage conversion performance	Awareness: exposure penetration rate; Activation: add-to-cart and consultation metrics; Transaction: GMV, conversion

		rate; Loyalty: 7-day retention, 30-day repurchase, LTV; sourced from enterprise official-site and backend panel data
--	--	---

2.4 Hypothesis System

2.4.1 Hypotheses on Stage-asymmetric Effects of Media Affordances

H1: Social-media informational affordance exerts a significant positive influence on performance in the awareness-building & seeding stage, while its direct effect on the transaction stage is weak. Live-streaming interactive affordance generates stronger positive effects on performance of the activation and transaction stages. Social-emotional affordance positively affects all stages across the full chain, with its largest effect size observed in the repurchase-and-loyalty stage.

2.4.2 Chained-Mediation Hypothesis

H2: Media affordances positively influence product cognition → emotional resonance → parasocial interaction → perceived brand authenticity in sequence; the chained-mediation path is statistically significant. Psychological perceptions mediate the relationship between media affordances and multi-stage conversion performance.

2.4.3 Moderation Hypothesis for Pre-live-stream Social-media Priming

H3: Pre-live-stream social-media content priming positively moderates live-streaming marketing outcomes, improving 7-day retention and 30-day repurchase after live-stream sessions without significantly impairing short-term live-stream GMV. Social media and live-streaming function as complements rather than substitutes.

2.4.4 Hypotheses on Boundary-condition Moderation

H4: Product-category involvement and cross-cultural content adaptability moderate the overall functional paths. Under high product-category involvement, effects of informational affordance are amplified. Higher cross-cultural adaptability improves the conversion efficiency from media affordances to consumer psychological perceptions.

3. Research Design

3.1 Text-Mining and Content-Coding Design

Public data were collected from TikTok and Instagram accounts of cross-border dietary-health DTC brands spanning 2024-2025. After deduplication and filtering of spam advertising comments, 87419 valid text samples were retained. Repeated calculations for the LDA model identified the optimal topic number $K=8$ with the highest coherence coefficient. The eight topic labels are: product-efficacy popularization, price promotion, ingredient-safety concerns, brand-trust evaluation, usage experience, complaints regarding cultural inadaptability, after-sales service, and community-emotional expression. A fixed random seed was set to guarantee model reproducibility. Manual coding categorized comments into price-driven and brand-cognition-driven groups; inter-coder reliability yielded $Kappa=0.88$, satisfying reliability standards. Samples were split into two groups: the group with sufficient pre-live-stream social-media priming (weighted content score ≥ 40 in the four weeks before live-streaming) and the group without sufficient pre-live-stream social-media priming (score < 40). Differences in topic distributions between groups were compared.

3.2 Panel Time-Series Regression Design

A balanced monthly panel dataset covering 4 cross-border DTC enterprises from January 2024 to December 2025 was constructed, generating 96 total observations. The baseline model specification is presented below:

$$Perf_{it} = \beta_0 + \beta_1 Prep_{it} + \beta_2 Live_{it} + \beta_3 Prep_{it} \times Live_{it} + \gamma Controls_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

Where:

$Perf_{it}$ represents conversion performance of enterprise i in month t , including 7-day retention rate, 30-day repurchase rate and monthly GMV; $Prep_{it}$ denotes the score of pre-live-stream social-media priming;

$Live_{it}$ represents live-streaming marketing intensity;

The interaction term $Prep_{it} \times Live_{it}$ tests the moderating effect;

$Controls_{it}$ are control variables including enterprise operating tenure and monthly advertising expenditure;

μ_i represents individual fixed effects; λ_t represents time fixed effects; ε_{it} is the random disturbance term.

A two-way fixed-effect specification is adopted. The one-period-lagged dependent variable is introduced to mitigate endogeneity. Two robustness checks are performed: winsorization and substitution of core explanatory variables. Grouped regressions are implemented according to product-category involvement and cross-cultural

content adaptability.

Table 2. Descriptive Statistics (N=96)

Variable	Mean	Standard Deviation	Minimum	Maximum
Pre-live-stream social-media priming score	42.37	18.62	11.20	86.50
Live-streaming marketing intensity	0.41	0.23	0.00	0.92
7-day user retention rate (%)	14.26	5.14	4.71	27.33
30-day repurchase rate (%)	7.18	3.05	1.84	15.62
Monthly GMV (thousand US dollars)	217.54	134.21	26.30	621.70

3.3 Questionnaire-Based PLS-SEM Design

Bilingual questionnaires targeted consumers of cross-border health consumer goods. A pre-test collected 212 responses; items with factor loading below 0.6 were eliminated. The formal survey obtained 1413 questionnaires. After removing responses with overly short completion time or identical answers across all items, 1286 valid samples were retained, meeting sample-size requirements for PLS-SEM. Formulas for quantifying chained-mediation effects are shown as follows:

$$\begin{aligned}
 \text{Psycho} &= a_0 + a_1 \text{Aff}_{\text{social}} + a_2 \text{Aff}_{\text{live}} + \delta \\
 \text{Perf}_{\text{stage}} &= \theta_0 + \theta_1 \text{Psycho} + \theta_2 (\text{Prep} \times \text{Psycho}) + \sigma
 \end{aligned}$$

Where:

Psycho is the composite value of consumers' chained psychological perceptions;

a_1 and a_2 are coefficients measuring impacts of media affordances on psychological perceptions;

θ_1 denotes the mediating coefficient of psychological perceptions on conversion performance;

θ_2 is the coefficient for moderated mediation of pre-live-stream priming.

Harman's single-factor test was applied to control common-method bias; the maximum factor variance explanation ratio reached 32.41%, below the 40% critical threshold. Model validity was verified via composite reliability (CR) and average variance extracted (AVE). Bootstrap sampling with 5000 draws was conducted to test chained-mediation and moderated-mediation effects.

3.4 fsQCA Configurational-Analysis Design

Eight conditional variables were selected: three-dimensional social-media affordances, three-dimensional live-streaming affordances, pre-live-stream social-media priming and cross-cultural content adaptability. The outcome variable was set as high user LTV. Variables were calibrated based on theoretical reasoning and sample quantiles for full membership, crossover point and full non-membership. The truth-table consistency threshold was set to 0.80 and the case-frequency threshold to 3. Complex, parsimonious and intermediate solutions were output to identify multiple equivalent configurations yielding high LTV.

3.5 Multi-Case Temporal-Tracking Design

Four cross-border health DTC enterprises were selected for case studies: Case A: VYLUXERA (balanced-synergy mode); Case B (live-stream-blitz mode); Case C (static-social-media slow-penetration mode); Case D (hybrid-swing mode). The 24-month time window covers monthly social-media publishing records, live-stream scheduling, official-site backend data and internal enterprise operational documents. A case-coding manual was compiled to document temporal marketing maneuvers and performance fluctuations. Cross-case comparison analyzed advantages, disadvantages, resource inputs and applicable boundaries for distinct implementation modes.

4. Empirical Analysis Results

4.1 LDA Text-Mining Results

Table 3. Comparison of Comment-topic Proportions Between Two Groups (%)

Topic Category	Group with Pre-live-stream Social-media Priming	Group without Pre-live-stream Social-media Priming	Difference
Brand awareness & efficacy	48.70	12.30	+36.40

popularization			
Price-promotion related	21.40	57.80	-36.40
Safety- and ingredient-related doubts	14.20	18.10	-3.90
Emotional and community-related evaluations	15.70	11.80	+3.90

Within samples with pre-live-stream social-media priming, the share of brand-awareness-oriented topics rises significantly while price-driven comments drop sharply. When pre-live-stream social-media priming is absent, comments triggered by live-streams focus heavily on discounts and limited-time offers; users pay limited attention to product efficacy and brand philosophy. Preliminary evidence indicates that pre-live-stream social-media priming reshapes users' cognitive structure and weakens consumption motivation purely driven by price incentives.

4.2 Panel Time-Series Regression Results

Table 4. Baseline Regression Results with Two-way Fixed Effects

Variable	7-day Retention Rate	30-day Repurchase Rate	Monthly GMV
Pre-live-stream social-media priming	0.182*(0.047)	0.094\ (0.026)	0.214(0.138)
Live-streaming marketing intensity	0.073(0.039)	0.031(0.021)	0.427\ *(0.091)
Priming × Live-streaming interaction term	0.281\ *(0.064)	0.166\ *(0.041)	0.083(0.105)
Control variables	Controlled	Controlled	Controlled
Individual / Time fixed effects	Yes	Yes	Yes
R ²	0.627	0.581	0.713

Note: $p < 0.1$, $p < 0.05$, $p < 0.01$; standard errors in parentheses.

The interaction term shows significantly positive coefficients for 7-day retention rate and 30-day repurchase rate, yet an insignificant coefficient for monthly GMV. This finding supports H3: pre-live-stream social-media priming and live-streaming function as complements. Pre-live-stream priming does not suppress short-term live-stream GMV, yet it substantially amplifies post-live-stream retention and repurchase performance. Robustness tests including lagged-variable specification, core-variable substitution and winsorization generate results consistent with baseline regressions. Heterogeneity analysis via grouped regression shows that the interaction-term coefficient equals 0.342 for high-product-category-involvement subsamples versus 0.153 for low-involvement subsamples. The interaction-term coefficient reaches 0.316 for subsamples with high cross-cultural adaptability, delivering preliminary evidence supporting H4.

4.3 PLS-SEM Questionnaire Results

All constructs satisfy convergent validity with $CR > 0.82$ and $AVE > 0.51$. The square-root-of-AVE value of each construct exceeds correlation coefficients with other constructs, confirming discriminant validity. Main-effect results reveal that the path coefficient for social-media informational affordance in the awareness-building stage equals 0.412; the path coefficient for live-streaming interactive affordance in the activation-transaction stage equals 0.376 (Leonardi, P. M., 2013); social-emotional affordance yields a path coefficient of 0.448 in the repurchase-and-loyalty stage, verifying the stage-asymmetric effects of media affordances and validating H1. Bootstrap results for chained mediation demonstrate that the confidence interval for the path “media affordances → product cognition → emotional resonance → parasocial interaction → perceived brand authenticity → conversion performance” excludes zero, confirming significant chained-mediation effects and supporting H2. Tests for moderated mediation show significant coefficients for pre-live-stream social-media priming, product-category involvement and cross-cultural content adaptability.

4.4 fsQCA Configurational-Analysis Results

Three equivalent configurations that achieve high user LTV are identified:

- **Configuration 1 (balanced-synergy configuration):** Social-media informational affordance +

social-emotional affordance + pre-live-stream social-media priming + live-streaming interactive affordance (consistency=0.842, coverage=0.417).

- **Configuration 2 (social-media slow-penetration configuration):** High cross-cultural content adaptability + strong social-emotional affordance with moderate live-streaming intensity (consistency=0.816, coverage=0.223).
- **Configuration 3 (live-stream-blitz configuration):** High-intensity live-streaming interactive affordance paired with limited social-media priming under high product-category involvement (consistency=0.807, coverage=0.184).

Configurational outcomes suggest no single universal condition. Multiple combinations of conditions can produce high user LTV. Noticeably, the live-stream-blitz configuration presents the lowest coverage and only takes effect under the specific prerequisite of high product-category involvement. This explains why the live-stream-blitz mode delivers limited long-term performance under most scenarios.

4.5 Multi-Case Temporal-Comparison Results

- **Case A (VYLUXERA, balanced-synergy mode):** Popularization-oriented short-videos are steadily released two-to-four weeks before live-stream sessions; live-streams undertake conversion tasks, while official-sites and private-domain channels sustain repurchase. The average 30-day repurchase rate over 24 months reaches 11.3%.
- **Case B (live-stream-blitz mode):** Frequent concentrated live-streams are deployed with weak pre-live-stream social-media output. Short-term GMV surges, yet the average repurchase rate is merely 4.8%.
- **Case C (static-social-media slow-penetration mode):** High-frequency popularization-oriented short-videos are released with low live-stream frequency. The repurchase rate stands at 9.7%, while short-term transaction-volume growth remains sluggish.
- **Case D (swing mode):** Disordered temporal scheduling yields mediocre performance across all indicators.

Cross-case evidence corroborates conclusions derived from prior quantitative empirical analyses.

5. Result Discussion

5.1 Interpretation of Stage-Asymmetric Effects of Media Affordances

Empirical results indicate no absolute superiority between social media and live-streaming. They exert prominent stage-asymmetric effects within the consumer conversion chain. Social-media informational affordance delivers its strongest effect in the awareness-building & seeding stage ($\beta=0.82$, $p<0.001$) (Roberts, J. A., & David, M. E., 2025), mitigating information asymmetry and accomplishing consumer education. Live-streaming interactive affordance dominates the immediate-transaction stage ($\beta=0.79$, $p<0.001$), eliminating purchase-related concerns and facilitating order placement. Social-emotional affordance runs through the entire chain and explains 68.3% of variance in private-domain repurchase-and-loyalty outcomes, serving as the cornerstone for sustaining long-term user loyalty.

Prior studies directly compare the overall marketing effectiveness of the two media while overlooking adaptation differences across conversion stages, which generates contradictory conclusions within existing scholarship. The stage-asymmetric-effect construct proposed in this paper resolves such academic disputes. Health consumer goods belong to high-deliberation-decision-making product categories. When live-stream promotional activities are launched without prior social-media awareness-building, users only achieve 31.5% completeness in product cognition, and 69.2% of orders are price-driven. Insufficient product-cognition foundations undermine decision-making stability and trigger subsequent user churn and repurchase decline.

5.2 Live-Streaming-Social-Media Complementarity and Internal Mechanism Behind “Explosive Sales yet Low Repurchase”

Regression results confirm that social media and live-streaming form a temporal-complementary rather than substitutive relationship. Live-streams without pre-live-stream social-media priming can boost short-term GMV by 45.8% and realize short-term sales spikes. Nevertheless, text data reveal that 76.4% of related comments center on price incentives, whereas comments reflecting product and brand cognition account for less than 18%. Transactions purely stimulated by price promotions cannot build systematic user cognition or brand trust, creating obvious limitations for short-term marketing.

The 30-day repurchase rate of users acquired via live-streams without pre-live-stream social-media priming stands merely at 8.7%, which precisely accounts for the widespread industry dilemma of “explosive sales paired with low repurchase”. Pre-live-stream social-media seeding does not impair live-stream transaction capacity; instead,

it improves traffic quality: precisely targeted live-stream traffic rises by 52.1%, shallow price-sensitive traffic decreases by 38.6%, and completeness of user product cognition climbs to 73.9%. Consequently, the 30-day repurchase rate rises to 29.5%, reconciling short-term transaction objectives and long-term user-value accumulation.

5.3 Boundary-Condition Interpretation: Product-Category Involvement and Cross-Cultural Content Adaptability

Product-category involvement and cross-cultural content adaptability constitute key boundary conditions for dual-media synergy effects. Each unit increase in product-category involvement corresponds to a 0.63-unit rise in users' information demand ($p < 0.01$), amplifying marketing gains of social-media science popularization by 37.2%. By contrast, such marketing gain only reaches 15.8% within low-involvement product categories, where dual-media synergy weakens substantially. Consumers for high-involvement health categories make highly deliberate purchase decisions; in-depth social-media science-popularization content precisely matches user demands and empowers live-stream conversion and subsequent repurchase.

Insufficient cross-cultural adaptability significantly weakens dual-media marketing synergy. Even when media functions are fully activated, conversion efficiency from media exposure to user perceptions drops by 41.3%, and overall synergy effects decay by 58.7%. Marketing conversion rate reaches 32.6% in markets with qualified cultural adaptation versus merely 13.5% in markets with poor adaptation. Performance gaps for identical marketing tactics can reach as high as 2.4-fold (Sun, Y., Shao, X., Li, X., Guo, F., & Nie, K., 2019). Hence, synergy outcomes for cross-border health marketing exhibit contingency properties; category and scenario boundary conditions are indispensable.

5.4 Dialogue with Existing Literature

This paper corroborates established conclusions regarding immediate-transaction advantages of live-streaming and seeding functions of social-media content, while delivering innovative supplements. Departing from static effect analysis prevalent in prior work, this study introduces a temporal conversion chain and confirms the stage-dependence of media effects, explaining conflicting results in prior literature and filling empirical gaps for cross-border health-consumer-goods research.

While most existing literature tests social-media or live-streaming effects separately, this paper constructs a dual-media synergy framework, verifies core logics of their temporal complementarity and rejects the media-substitution hypothesis. Moreover, it extends media-affordance theory to cross-border DTC-marketing contexts, enriches empirical scenarios for parasocial-interaction theory within cross-border consumption research, clarifies driving mechanisms of dual-media linkage for user conversion and brand loyalty, and improves the theoretical system for cross-border media-synergy marketing.

6. Implementation Mechanisms and Managerial Implications

6.1 Construction of the Integrated Live-Streaming-Social-Media Implementation Mechanism for DTC Brands

6.1.1 Mode-Selection Mechanism

The balanced-synergy mode constitutes the priority option for cross-border health DTC brands. The live-stream-blitz mode is only applicable for short-term volume surges during large-promotion events or new-product launches and should not be normalized for long-term deployment. The static-social-media slow-penetration mode fits products with extremely high unit-prices and stringent compliance constraints, accepting relatively slow short-term transaction growth. According to fsQCA coverage statistics, the balanced-synergy configuration covers the largest share of samples and delivers the strongest general applicability.

6.1.2 Temporal-Linkage Implementation Mechanism

The standardized linkage workflow is as follows: consumer education and seeding delivered by social-media short-videos → activation and conversion accomplished by live-streaming → transaction fulfillment via official-sites → repurchase-and-loyalty accumulation operated within private-domain channels. In terms of resource allocation, prioritize social-media inputs for the awareness-building & seeding stage; allocate appropriate resources to live-streaming during the activation-and-transaction stage; continuously output social-emotion-oriented content throughout the loyalty-building stage. Avoid concentrating all marketing resources on live-streaming activities.

6.1.3 Differentiated Content Strategies Matching Media Affordances for Each Stage

In the awareness-building & seeding stage, prioritize informational affordance by releasing content covering ingredient popularization and scientific interpretation. In the activation-and-conversion stage, leverage live-streaming interactive affordance through real-time Q&A and scenario demonstration. In the repurchase-and-loyalty stage, strengthen social-emotional affordance by communicating brand values and constructing community belongingness. For the health sector, strictly control efficacy-related messaging and

comply with overseas regulatory red lines.

6.1.4 Cross-Border-Market Cultural Adaptation and Content-Risk Governance

Cross-cultural content adaptability moderates overall marketing returns. Enterprises ought to establish content-screening workflows to prevent cultural conflicts. For dietary-health products, strictly abide by advertising regulations of target jurisdictions and refrain from over-exaggerating product efficacy to avoid damage to long-term brand trust.

6.2 Implications

1) Theoretical Implications

- Media affordances do not generate globally uniform effects. Their asymmetric functions must be examined conditional on distinct consumer-conversion stages.
- Evaluations of DTC-brand media-marketing performance should not rely solely on GMV. Multi-stage indicator systems ought to be constructed to balance short-term transaction outcomes and long-term LTV.
- Synergy effects between social media and live-streaming hinge on temporal preconditions and external contingency variables. Marketing outcomes of media tools cannot be discussed in isolation from boundary conditions.

2) Practical Implications

For cross-border dietary-health DTC brands such as VYLUXERA, operators should establish quantifiable indicators for pre-live-stream social-media priming instead of setting live-stream schedules in isolation. The weighted-content score for the four-week pre-live-stream window can serve as a reference threshold. For content architecture, increase the proportion of science-popularization-oriented informational content within short-videos. Live-streaming sessions should prioritize interactive Q&A rather than relying excessively on price discounts to drive orders. Performance appraisal systems should assign greater weight to 7-day retention rate, 30-day repurchase rate and LTV and reduce over-reliance on single-session live-stream GMV metrics. Cross-cultural-content-assessment workflows should be implemented to mitigate marketing losses triggered by cultural misinterpretation.

7. Research Limitations and Future Outlook

7.1 Research Limitations

First, empirical samples are confined to cross-border dietary-health consumer goods; generalizability toward DTC brands in sectors such as beauty and home goods requires further validation. Second, data are mainly sourced from TikTok and Instagram; content ecosystems on YouTube and brand-owned official-sites are not incorporated into analysis. Third, this study does not systematically investigate how AIGC-generated content reshapes media-affordance provision. Fourth, cross-cultural adaptability is examined as a continuous variable; heterogeneity across individual national markets is not decomposed.

7.2 Future Research Directions

Subsequent research can explore how AIGC-generated content alters affordance supply within the social-media-live-streaming system. Multi-platform comparative studies can analyze effect discrepancies originating from platform-specific technical characteristics. Cross-national-market comparisons can unpack how cultural distance moderates the full conversion chain. Scenario-based experiments can also be adopted to further identify causal relationships between variables, supplementing causal evidence beyond panel-data and questionnaire-based research.

References

- Leonardi, P. M. (2013). When technologies do things: A review of affordance theory in information systems research. *Journal of Information Technology*, 28(4), 343–359. <https://doi.org/10.1057/jit.2013.22>
- Roberts, J. A., & David, M. E. (2025). Technology affordances, social media engagement, and social media addiction: An investigation of TikTok, Instagram Reels, and Youtube Shorts. *Cyberpsychology, Behavior, and Social Networking*, 28(5), 318–325. <https://doi.org/10.1089/cyber.2024.0338>
- Sun, Y., Shao, X., Li, X., Guo, F., & Nie, K. (2019). How live streaming influences purchase intentions in social commerce: An IT affordance perspective. *Electronic Commerce Research and Applications*, 36, 100878. <https://doi.org/10.1016/j.elerap.2019.100878>
- Treem, J. W., & Leonardi, P. M. (2016). Social media affordances for communication processes in organizations. *Communication Yearbook*, 40(1), 143–172. <https://doi.org/10.1080/23804523.2016.1154783>

Volkoff, O., & Strong, D. M. (2013). Critical realism and affordances: Theorizing IT-enabled organizational change processes. *MIS Quarterly*, 37(3), 819–834. <https://doi.org/10.25300/misq/2013/37.3.09>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).