

The Role of Link-in-Bio Services in Influencer Marketing: A Case Study of “Kemi”

Bom Nym Hwang*
Sulim Kim**
Hajin Shin***
Hee-Dong Yang****

The widespread use of smart devices and advances in network technology have significantly transformed social networking services (SNS). Today, SNS platforms serve as the pivotal channels for communication, marketing, and commerce. Major platforms, including YouTube, Instagram, and TikTok, have introduced integrated shopping features, fostering comprehensive e-commerce ecosystems. Despite these improvements, SNS platforms still face notable challenges, particularly in capturing detailed consumer behavior data and managing complicated product registration processes. To overcome these limitations, multilink (“link-in-bio”) services have emerged as valuable tools, especially for influencers engaged in social media-driven commerce. This study investigates how the use of a specific link-in-bio service, “Kemi,” provided by Wired Company, influences sales, particularly in group-buying scenarios. Analyzing daily data from June 2023 to April 2024, we employed linear regression analysis to explore how different user behaviors—card clicks, views of product detail pages, and video content plays—affect daily sales. Our findings show that user activities such as clicking cards and viewing product details positively influence sales performance. These behaviors clearly indicate effective user engagement and enhanced purchase decisions. However, frequent viewing of video content had a negative effect on sales, likely due to users experiencing information overload and fatigue from repeated content exposure. Therefore, the results highlight the necessity of strategically managing content in link-in-bio services. Optimizing content delivery to avoid redundancy is essential for improving user experiences and maximizing commercial outcomes.

Key Words: Link-in-Bio, Multi-links, Influencer Marketing, Social Media

I. Introduction

The proliferation of smart devices and the

advancement of network technologies have significantly enhanced the role of social networking services (SNS) in everyday communication and information sharing (Choi

Received: 2025. 07. 24.

First Revision Received: 2025. 10. 10.

Accepted: 2025. 10. 10.

* PhD Student, College of Business Administration, Ewha Womans University(spring@thetrinityx.com)

** Assistant Professor, Division of Future Convergence, Sungkonghoe University(sulimkim@skhu.ac.kr), Corresponding Author

*** PhD, College of Business Administration, Ewha Womans University(hajinshin@ewhain.net)

**** Professor, College of Business Administration, Ewha Womans University(hdyang@ewha.ac.kr).

& Lee, 2013). As accessibility and convenience improved, SNS platforms evolved from personal networking tools into essential channels for brand communication and marketing (Kim et al., 2018). Consequently, SNS platforms now serve as integrated commerce environments, facilitating product information dissemination, promotional campaigns, and direct consumer transactions (Kim & Song, 2018). In response to this shift, global platforms such as YouTube, Instagram, and TikTok have introduced shopping features, creating seamless e-commerce ecosystems. For example, YouTube and Instagram allow users to view product information and access purchase pages directly through clickable product tags. TikTok expanded this approach in 2018 by launching TikTok Shop, which includes live-stream shopping, shoppable videos linked to product pages, detailed listings with ratings and reviews, and dedicated shopping tabs for various sellers and brands. These additions enable influencers and merchants to sell products directly within the platform without relying on external e-commerce sites (Kim & Yoon, 2024).

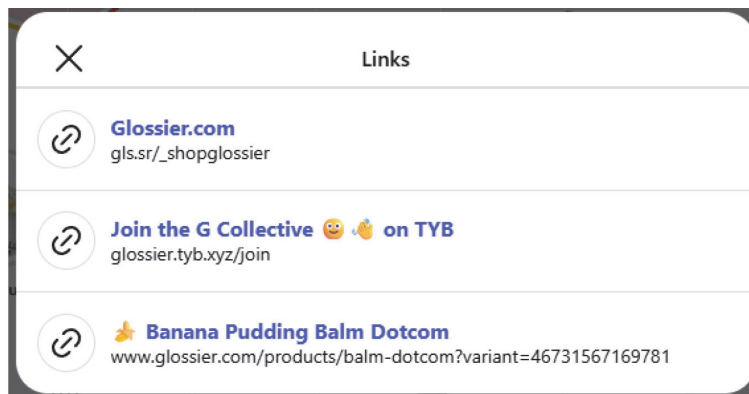
Despite these advancements, global SNS shopping functions continue to face several structural limitations. First, the lack of integration between SNS platforms and external e-commerce systems restricts access to detailed consumer behavior data, including click patterns, session durations, add-to-cart events, and cart abandonment points. This limitation makes it difficult for busi-

nesses to develop data-driven marketing strategies or manage customers effectively. Second, procedural and policy-related restrictions often complicate the process of product registration and sales on SNS platforms. For instance, Instagram requires sellers to connect their accounts to Facebook and create a separate business profile, while only products that comply with platform-specific guidelines can be listed. To address these challenges, influencers and brands increasingly place external shopping links within their profile bios (see Figure 1). In this setup, products are promoted through social media content, while actual transactions occur via external websites linked in the bio. This method helps overcome the data and policy constraints of SNS platforms while offering consumers a more direct and convenient path from content engagement to purchase.

Historically, SNS platforms restricted users to a single external link in their profile biographies. However, this policy changed in April 2023, when platforms began allowing up to five external links in response to increasing user demand. Meta CEO Mark Zuckerberg explained that enabling multiple external links in profile biographies had been among users' most frequent requests (Ahn, 2023). This update underscores the evolving role of SNS platforms as essential tools for business and brand promotion. Nevertheless, Instagram still prominently displays only one external link, requiring users to click



〈Figure 1〉 Example of a link registered in the profile bio of the global cosmetic brand “Glossier”



〈Figure 2〉 Example of the link-in-bio page of the global cosmetic brand “Glossier”

further to view additional ones. This structure limits the clarity of navigation, as users can only see the titles and addresses of linked sites without additional contextual information (see Figure 2).

In this context, link-in-bio services have emerged as essential tools that facilitate commercial activities across social media platforms. Often referred to as “multilink” services, they allow users to connect multiple URLs or different types of content through a single link. Initially, these services functioned as simple link hubs that merely listed various destinations. Over

time, however, they have evolved into more advanced platforms that support personalized page layouts, integrated e-commerce features, content visualization, and user analytics.

Within this growing landscape of social media-based commerce, a notable trend has emerged: influencer-led group buying. Group buying refers to a collective purchasing model in which an influencer promotes limited-time or limited-quantity products, encouraging followers to participate together to receive discounts or exclusive benefits (Kim et al., 2020). This phenomenon has trans-



〈Figure 3〉 Example of an influencer's link-in-bio usage

formed social media from a space for information exchange and community interaction into an active marketplace where consumers engage in collective, trust-based transactions.

In this evolving environment, link-in-bio services play a pivotal role. Influencers utilize these platforms to share product information, coordinate group-buying campaigns, and manage interactions with followers more effectively. By embedding multilinks in their profile bios, influencers provide followers with seamless access to multiple resources such as product pages, detailed descriptions, purchasing timelines, and customer service through a single interface (see Figure 3). As a result, link-in-bio services serve as critical infrastructures that convert influencer content into measurable commercial outcomes, bridging the gap between consumer engagement and purchasing behavior.

This study empirically examines how the utilization of link-in-bio services influences influencer-led group-buying performance on social media. The analysis focuses on Kemi,

a platform developed by Wired Company, a domestic influencer agency. Existing research on link-in-bio services has predominantly adopted a business-oriented perspective, emphasizing functional descriptions and case-based applications rather than academic investigation. Academic literature on this topic remains limited, and empirical studies exploring how link-in-bio services create economic value within influencer marketing are particularly scarce.

Building on this gap, the present research integrates real log data and daily sales records from Kemi to quantitatively assess the relationship between specific service features such as card clicks, product-detail views, video plays and sales performance. This approach illustrates that link-in-bio services are not merely technical connectors but strategic mechanisms that drive commercial success in influencer marketing. Moreover, by positioning link-in-bio services within academic discourse and validating their practical influence, this study broadens the analytical scope of influencer marketing research and offers new insights for

optimizing platform functionalities and enhancing user experience.

II. Literature Reviews

2.1 Global Link-in-Bio Services and the Korean Link-in-Bio Service "Kemi"

Link-in-bio services are platforms designed to connect multiple online destinations such as online stores, YouTube channels, blogs, event registration pages, and payment gateways through a single URL. These services emerged as a response to the restrictive structure of social networking service (SNS) profile biographies, which traditionally permitted only one external link. As of 2022, approximately 31 million Instagram users worldwide were utilizing link-in-bio services, with women comprising 64% of users. The largest user bases were concentrated in the United States (49%), Brazil (13%), the United Kingdom (7%), and Australia (4%), with influencers holding large followings particularly active in using link-in-bio tools for brand collaborations (Kiril, 2024).

Among global link-in-bio platforms, Linktree, launched in Australia in 2016, dominates the market with a 79% global share. It offers unlimited link connections, integration with media platforms such as Spotify and SoundCloud, payment systems via PayPal and Square, user behavior analytics, and customizable design

options including thumbnails and themes—enhancing both brand identity and business utility. Other international services such as Milkshake App and Beacons (United States) and Linkin.bio (Canada) provide comparable functionalities, featuring unlimited link connections, multimedia content integration, data analytics, and design customization (see Table 1). These platforms also support various monetization models, including affiliate marketing, sponsorship payments, and digital product sales. However, a notable limitation remains that most global platforms support only English, reducing accessibility and usability



〈Figure 4〉 Example of an influencer’s main link-in-bio page using "Kemi"

〈Table 1〉 Global and Korean Link-in-Bio Services and Features*1

Link-in-bio Service	Country of Origin	Launch Date	Paid Plan Availability	Features
Linktree	Australia	2016.04	O (Subscription)	<ul style="list-style-type: none"> - Unlimited link integration - Integration with external platforms (e.g., Spotify, SoundCloud) - Usage analytics (e.g., clicks, visitors) - Payment integration (e.g., PayPal, Square) - Customization options (e.g., thumbnails, themes) - English-only support
Inpock Link	South Korea	2018.10	O (Subscription)	<ul style="list-style-type: none"> - Unlimited link integration - Integrated business inquiries (e.g., DM, email) - Customization options (e.g., thumbnails, themes) - Schedule sharing and automated notifications - English and Korean support
Milkshake App	United States	2018.11	O (Subscription)	<ul style="list-style-type: none"> - Unlimited link integration - Multi-format content integration (e.g., text, images, videos, blogs, podcasts) - Usage analytics (e.g., clicks, visitors) - Customization options (e.g., thumbnails, themes) - English-only support
Linkin.bio	Canada	2019.11	O (Subscription)	<ul style="list-style-type: none"> - Unlimited link integration - Customization options (e.g., buttons, backgrounds) - Key link highlighting via banners - Email subscriber management - Brief link descriptions - English-only support
Beacons	United States	2020.09	O (Subscription)	<ul style="list-style-type: none"> - Unlimited link integration - Monetization features (e.g., sponsorships, affiliate marketing, digital product sales) - Customization options (e.g., thumbnails, themes) - Mobile marketing (e.g., email, SMS) - Creator collaboration features (community blocks) - English-only support
Litt.ly	South Korea	2021.05	O (Limited additional features)	<ul style="list-style-type: none"> - Unlimited link integration - Payment integration (e.g., product sales, sponsorship payments, international transactions) - Customization options (e.g., templates, fonts) - YouTube video embedding - Usage analytics (e.g., page visits, clicks)
Kemi	South Korea	2022.05	X	<ul style="list-style-type: none"> - Unlimited link integration - Multimedia content embedding (e.g., images, videos) - Customization options (e.g., background images, music) - Timeline visualization for group purchasing schedules - Usage analytics (e.g., clicks, conversion rates, page visits)
Revu Link	South Korea	2024.05	X	<ul style="list-style-type: none"> - Unlimited link integration - Media display (e.g., text, image, video) - Integration with multiple social media platforms - Customization options (e.g., templates)

*The contents of the table are based on information from the official websites of each link-in-bio service.

for non-English-speaking users.

In Korea, comparable link-in-bio platforms have been developed, including Inpock Link (2018), Litt.ly (2021), and Revu Link (2024). These services provide functionalities similar to global counterparts such as unlimited link connections and customizable designs while offering additional features tailored to local user needs, such as schedule management and automated notifications. Among them, Kemi, launched by Wired Company in May 2022, has attracted significant attention for its distinctive competitive advantages. Within four months of launch, Kemi recorded over 600,000 visitors, reflecting rapid user adoption.

Kemi differentiates itself through its interactive design features, allowing users to integrate multimedia content such as images and videos, thereby enhancing engagement beyond traditional text-based link lists (see Figure 4). Users can personalize their Kemi pages with background images and music, enabling them to express brand identity both visually and audibly. Products can also be displayed directly on the page with embedded purchase buttons, effectively shortening the consumer purchase journey. Another core feature is Kemi's visual timeline for group-buying campaigns, which enables influencers to clearly display the start and end dates of each group-buying event. Group buying refers to a sales model in which limited quantities of products are offered at discounted prices for a specified period, en-

couraging collective participation among followers. By clearly visualizing these schedules, Kemi minimizes confusion between promotional and sales announcements, facilitating transparent communication between influencers and consumers. This not only supports consumer purchase planning but also enhances the overall user experience. Additionally, Kemi provides real-time analytics on click-through rates, page conversions, and session durations, enabling data-driven decision-making and strategic marketing optimization.

Consequently, Kemi has established itself not merely as a link aggregation platform but as an interactive platform that enhances brand identity and consumer experience. This study aims to empirically analyze the impact of link-in-bio provided through social media on consumer purchase decisions, using Kemi's differentiated functionalities as a focal case study.

2.2 Expansion of Influencers' Commercial Roles and the Group-Buying Model

Social media has significantly transformed influencer marketing by expanding promotional and sales strategies. Initially, influencers emerged as "online celebrities" by creating engaging content, building credibility and fostering trust through sharing expertise and active interaction with their followers (Lou & Yuan, 2019). Over time, influencers leveraged their established influence to engage in commercial collaborations,

promoting brands and products in exchange for financial compensation (Djafarova & Rushworth, 2017; Kim et al., 2020). However, the shift from authentic content creation to explicit commercial engagement has led to adverse follower reactions (Jeon & Kwon, 2021). Followers tend to question the authenticity of influencer posts when promotional intent is evident, often resulting in negative perceptions of both influencers and associated brands (Boerman et al., 2015; Evans et al., 2017; Kim & Kim, 2021; Van Reijmersdal et al., 2016; Wojdyski & Evans, 2016). Posts clearly marked as “paid ad” or “sponsored” are frequently viewed as persuasive marketing messages, undermining followers’ trust and reducing their willingness to share content (Campbell et al., 2013). Regulatory actions, such as the guidelines set by the U.S. Federal Trade Commission (FTC), have further solidified these perceptions by explicitly requiring influencers to disclose sponsored content, reinforcing their image as commercial actors (Hwang & Jeong, 2016). Nevertheless, recent research suggests that commercial content does not universally generate negative outcomes; rather, its effectiveness significantly depends on how influencers strategically manage their content (Kim et al., 2020; Lee & Kim, 2020).

Influencer marketing has further evolved from product endorsements toward direct sales models such as group-buying. Group-buying involves selling limited quantities of products at special prices over short promo-

tional periods (Kim et al., 2020). Typically, influencers intensively promote these products on social media approximately one week before the sales period begins, followed by actual sales events lasting two to three days. Followers usually make purchases through external payment platforms, accessed via links provided in influencers’ social media profile bios. This practice originated due to the initial lack of integrated e-commerce functions within social media platforms and the technical challenges involved in linking online shopping systems. Consequently, all group-buying communications are primarily conducted through social media posts. Prior research has explored the impact of influencer activities on follower engagement, purchasing intentions, and actual sales outcomes (Kim et al., 2020; Lee & Kim, 2020; Leung et al., 2022). According to Kim et al. (2020), influencer content strategies should vary based on audience size: larger influencers tend to achieve greater sales through frequent promotional content, while smaller influencers benefit more from creating empathetic, engaging interactions. Leung et al. (2022) identified influencer posting frequency as a critical factor, revealing an inverted U-shaped relationship between influencer activity and marketing effectiveness. Specifically, too little activity can hinder credibility, whereas excessive posting can lead to information overload and negative audience reactions. Additionally, Kim et al. (2024a) found that one-way com-

munication negatively impacts sales, while interactive communication through active responses to follower comments positively influences sales, following a similar inverted U-shaped pattern.

Consequently, previous research has demonstrated that various influencer activities can positively affect group-buying sales performance. However, limited scholarly attention has been devoted to understanding the specific role and effectiveness of link-in-bio services embedded in influencers’ social media bios. Therefore, this study investigates how link-in-bio services functioning as critical communication channels during group-buying promotions affect actual sales outcomes.

2.3 Role of Link-in-Bio Services in Influencer Marketing

The term “Link-in-bio” refers to a clickable URL placed within a social media profile’s biography section. This practice is especially prevalent on platforms such as YouTube and Instagram, where inserting clickable external links directly within individual posts is restricted. Due to these constraints, users frequently include external links in their profile bios and direct followers to these links via individual posts. Since its introduction in 2016, the link-in-bio approach has become an essential component of social media marketing strategies. However, empirical research examining the marketing effectiveness of link-in-bio services remains

limited.

Influencers primarily communicate with their followers through social media posts during group-buying campaigns. According to Kim et al. (2020), influencers employ distinct content strategies based on their level of influence, uploading both commercial and non-commercial posts during intensive promotional periods prior to sales events. Commercial posts explicitly indicate paid partnerships or sponsorships through phrases like “#sponsored” or “#ad,” and prominently feature promotional content such as product-related images, videos, and comments. In contrast, non-commercial posts involve sharing personal, everyday life experiences without any commercial intent (De Jans et al., 2020; Kim et al., 2020). When commercial and non-commercial content coexist, followers may struggle with information overload, becoming overwhelmed by the difficulty of distinguishing essential purchase-related information, a phenomenon likely exacerbated when multiple products are promoted simultaneously.

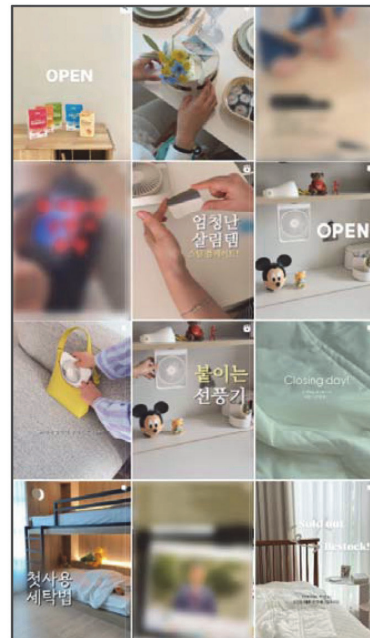
Information overload occurs when the volume of information exceeds an individual’s cognitive processing capabilities (Zhang et al., 2020). According to Lang’s (2000) limited capacity model, humans possess finite cognitive resources for information processing; exceeding these resources increases cognitive strain, stress, and impaired decision-making capabilities. Specifically, followers are likely to experience cognitive

overload when influencers concurrently upload multiple commercial and non-commercial content within a short timeframe, complicating efficient discernment of relevant information (Pang & Ruan, 2023). Such cognitive overload can lead to social media fatigue, defined as psychological exhaustion and disinterest resulting from continuous exposure to content and information processing demands (Cherubini et al., 2010; Bright et al., 2015; Zhang et al., 2016; Lee et al., 2016). Accumulated social media fatigue may prompt users to reduce platform usage or even discontinue use entirely, decreasing follower engagement and negatively impacting purchase intentions (Lin et al., 2021; Kim et al., 2024b).

In digital environments characterized by information overload, individuals commonly rely on cues for efficient information processing (Sundar, 2008). Liu & Goodhue (2012) describe humans as cognitive misers, aiming for quick and efficient decision-making with minimal cognitive effort, heavily relying on various cues to rapidly assess content credibility (Lynch et al., 1988). While content elements (e.g., headlines) serve as informational cues, technological features also provide critical signals affecting users' perception and information-processing behaviors (Sundar, 2008). For example, algorithm-based navigation features in platforms like Google News provide users clear signals about content relevance, recency, and credibility, facilitating efficient information search

and rapid quality assessments (Sundar et al., 2007). Thus, services with robust content curation and information discovery capabilities enable users to efficiently select and process necessary information, quickly evaluate credibility, and effectively integrate new information with existing knowledge (Knoll et al., 2020; Matthes et al., 2020; Naderer et al., 2020; Nanz et al., 2022; Tandoc et al., 2021; Thorson & Wells, 2016; Van Overschelde & Healy, 2001).

In this context, our study aims to examine the role of link-in-bio services as informational cues designed to mitigate information overload and social media fatigue within influencer marketing. Link-in-bio services en-



〈Figure 5〉 Examples of Commercial and Non-commercial Posts Uploaded by Influencers During Group-buying Promotions

able intuitive navigation among various content links, providing visual cues and detailed product information to help followers quickly and efficiently identify relevant content. This study explores how these detailed features of link-in-bio services practically influence group-buying sales performance, seeking to confirm the value of these services as effective tools for reducing cognitive load among followers and enhancing overall sales outcomes in influencer marketing.

III. Data and Method

3.1 Data

In this study, we utilized data from Wired Company’s link-in-bio service, “Kemi.” The dataset consists of daily observations col-

lected over approximately one year, from June 1, 2023, to April 30, 2024, comprising a total of 335 observations. The data can be broadly categorized into Kemi log data and sales data.

First, Kemi log data encompasses various user interactions within the link-in-bio page, including click frequencies and page views. Specifically, the variables include the total number of card (link) clicks on the link-in-bio page on day t ($click_card_t$), the total frequency of product detail page views ($product_detail_t$), the total frequency of product-related video content plays ($video_play_t$), a binary measure indicating whether influencers utilized interactive features (such as inserting or changing images or background music) on the link-in-bio page ($set_userproperties_t$), the frequency of membership registration pop-up exposure ($signup_popup_t$), and the total number of side-menu openings

⟨Table 2⟩ Description of Variables

Variables	Descriptions
ln_sales_t	Natural log-transformed total sales from group-buying transactions generated via the Kemi service on day t
$click_card_t$	Total number of follower visits to the link-in-bio page on day t
$product_detail_t$	Total number of times followers opened product detail pages within the link-in-bio page on day t
$video_play_t$	Total number of times followers played product-related video content provided within the link-in-bio page on day t
$set_userproperties_t$	Total number of times influencers updated interactive features (such as adding or changing images and background music) on the link-in-bio page on day t
$signup_popup_t$	Total number of times the membership signup popup was displayed on the link-in-bio page on day t
$sidemenu_t$	Total number of times the side menu was opened on the link-in-bio page on day t

〈Table 3〉 Descriptive Statistics

Variables	Obs.	Mean	Standard Deviation	Min.	Max.
\ln_sales_t	335	17.0631	0.6158	14.4834	18.6586
$click_card_t$	335	26674.12	8967.379	9703	56768
$product_detail_t$	335	4731.137	2008.132	1293	13465
$video_play_t$	335	1957.316	1183.045	307	14593
$set_userproperties_t$	335	1055.904	373.1929	225	2656
$signup_popup_t$	335	604.603	318.2499	0	2045
$sidemenu_t$	335	545.7015	281.0883	0	2711

($sidemenu_t$).

Second, the sales data represents actual sales generated on the shopping platform linked with the Kemi service, reflecting total daily transactions. Given the skewed distribution of sales data, we applied a natural logarithmic transformation (\ln_sales_t) to normalize the values.

Ultimately, this study aims to analyze how user behaviors such as clicks and page views and influencers' direct use of interactive features within the link-in-bio service affect group-buying sales on the same day (t). While most of the observed data primarily capture user interactions, including clicks and page views, the interactive feature variable ($set_userproperties_t$) reflects the influencer's direct actions in customizing or modifying the page. Accordingly, the analysis examines the relationship between user and influencer activities within the link-in-bio service and their combined impact on group-buying sales. The descriptive statistics and detailed definitions of all variables are provided in Tables 2 and 3, respectively.

3.2 Method

In this study, we conducted an Ordinary Least Squares (OLS) regression analysis to investigate how specific functionalities of the Kemi link-in-bio service impact actual sales performance. OLS regression is a statistical method that identifies the linear relationship between one or more independent variables and a dependent variable by minimizing the sum of squared residuals (Lim, 2020). The data employed in this research are cross-sectional, representing aggregated daily observations rather than panel data differentiated by specific influencers or user IDs. Hence, instead of utilizing panel data methods, we analyzed each daily observation independently to examine linear relationships between independent and dependent variables. The regression equation established in this study is presented in Equation <1>.

$$\ln(Sales)_t = \beta_0 + \beta_1(Click_card)_t + \beta_2(Product_detail)_t + \beta_3(Video_play)_t + \beta_4\gamma X_t + \epsilon_t \quad \langle 1 \rangle$$

The dependent variable (\ln_sales_t) represents the natural logarithm-transformed daily total sales amount generated through the Kemi service, denoting sales performance on day t . Primary independent variables include the total frequency of user visits to the link-in-bio page ($click_card_t$), the total frequency of product detail page views ($product_detail_t$), and the total frequency of product-related video content plays within the link-in-bio page ($video_play_t$), analyzing their immediate impacts on same-day sales performance. Control variables (X_t) incorporated in the analysis include the total frequency of influencer interactions with the interactive features of the link-in-bio page

such as inserting or changing images and background music ($set_userproperties_t$) the total frequency of membership registration pop-up exposure ($signup_popup_t$), and the total frequency of side-menu openings ($sidemenu_t$), thereby improving analytical precision. Additionally, ϵ_t represents the error term that accounts for unexplained variations within the model.

Furthermore, we assessed potential multicollinearity issues by analyzing the correlation matrix among variables and computing the variance inflation factor (VIF). Typically, multicollinearity is indicated if correlation coefficients exceed 0.8 ($r > 0.8$) or if the VIF exceeds 10 (Shrestha, 2020). Our anal-

<Table 4> Correlation Matrix

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1)	1.0000						
(2)	0.3214*	1.0000					
(3)	0.7557*	0.2915*	1.0000				
(4)	0.0725	0.4292*	0.1020	1.0000			
(5)	0.7635*	0.5130*	0.7565*	0.2840*	1.0000		
(6)	0.5234*	0.0582	0.4452*	0.0113	0.4634*	1.0000	
(7)	0.0512	0.2453*	0.0691	0.0689	0.0805	0.5283*	1.0000
*p<0.05 (1) \ln_sales_t (2) $click_card_t$ (3) $product_detail_t$ (4) $video_play_t$ (5) $set_userproperties_t$ (6) $signup_popup_t$ (7) $sidemenu_t$							

<Table 5> VIF Results

	VIF
$click_card_t$	1.99
$product_detail_t$	2.49
$video_play_t$	1.26
$set_userproperties_t$	3.74
$signup_popup_t$	2.37
$sidemenu_t$	1.84
Mean VIF	2.28

ysis revealed that all correlation coefficients among explanatory variables remained below 0.8, and calculated VIF values for all variables remained under 10, indicating no significant multicollinearity problems (see Tables 4 and 5).

IV. Results

The analysis revealed that the frequency of clicks on card links (*click_card_t*) within the link-in-bio page positively and significantly influenced group-buying sales performance (see Table 6). This result indicates that higher user interaction with card-type links directly translates into increased product purchases, ultimately enhancing overall sales. Similarly, the frequency of product detail page views (*product_detail_t*) also positively affected sales. This suggests that users who frequently access detailed product information exhibit stronger purchase intent, consequently promoting active participation in group-buying deals.

In contrast, the frequency of video content plays (*video_play_t*) had a negative impact on sales. This finding implies that repeatedly presenting similar video content on the link-in-bio page might induce consumer fatigue and reduce user engagement. Users are likely to experience information redundancy due to prior exposure to similar content (e.g., photos and videos) on influ-

encer social media posts.

Overall, these results highlight that user activities such as card clicks, and product detail views are effective strategies for boosting group-buying sales through link-in-bio services. However, excessive repetition of similar content can adversely affect consumer interest. Therefore, marketers should strategically avoid redundant content exposure to maintain consumer engagement and optimize sales performance. These findings offer valuable practical insights into designing future marketing strategies involving link-in-bio services in influencer-driven commerce.

〈Table 6〉 Main Results

	DV (<i>ln_sales_t</i>)
<i>click_card_t</i>	7.52e-06** (3.48e-06)
<i>product_detail_t</i>	0.0001*** (0.0000)
<i>video_play_t</i>	-0.0001** (0.0000)
<i>set_userproperties_t</i>	0.0006*** (0.0001)
<i>signup_popup_t</i>	0.0006*** (0.0001)
<i>sidemenu_t</i>	-0.0004** (0.0002)
Obs.	335
Adjusted R ²	0.7042
Robust standard errors in parentheses ***p<0.001, **p<0.01, *p<0.05	

V. Robustness Check

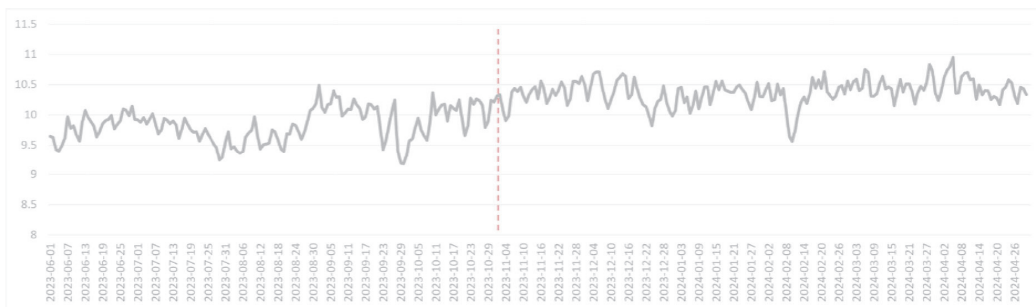
In order to verify the robustness of the main results, we conducted an additional analysis focusing on the period after user engagement with the service stabilized. During the early stages of a newly launched service, user traffic typically fluctuates considerably, and consistent usage patterns are not yet formed. Recognizing that such early-stage volatility may introduce potential bias, we repeated our analysis using data collected exclusively from a period of stable user engagement.

We first identified the stabilization point by examining trends in daily card-click frequency ($click_card_t$), which serves as a primary indicator of service usage. Because the proprietary business data of the Kemi link-in-bio service required confidentiality, daily usage patterns were transformed using natural logarithms before being visualized (see Figure 6). The trend analysis indicated that card-click frequencies exhibited considerable

volatility and relatively low engagement between June and October 2023. From November 2023 onward, daily usage stabilized at consistently higher levels.

Consequently, we conducted the same analytical procedure used in the main analysis, this time using 152 observations collected between November 1, 2023, and April 30, 2024. By comparing these results with the original full-sample analysis, we were able to verify the consistency and robustness of our findings, confirming that early-stage variability did not distort our conclusions.

The robustness check confirmed that the primary variables maintained effects consistent with those observed in the main analysis. Specifically, the frequency of card clicks ($click_card_t$) continued to show a statistically significant and positive association with group-buying sales. Similarly, visits to product detail pages ($product_detail_t$) also exhibited a positive and significant effect on sales. In contrast, the frequency of video content plays ($video_play_t$) showed a negative relationship with sales performance,



〈Figure 6〉 Usage Trend of Kemi (June 2023 - April 2024)

consistent with the results of the main analysis. These results indicate that the relationships identified in the primary analysis are not confined to specific time periods or samples but remain stable even after the initial fluctuations in service usage had subsided.

In particular, active user behaviors such as clicking on product cards and viewing detailed product information continue to play a crucial role in enhancing group-buying sales. Conversely, repetitive exposure to video content consistently leads to user fatigue, thereby negatively influencing sales outcomes. Overall, the robustness check provides compelling evidence that the key interpretations of this study remain valid and reliable, even when the analysis is restricted to the stabilized period of service use.

VI. Conclusion

This study conducted an empirical examination of how distinct functionalities of the link-in-bio service, “Kemi”, a core platform supporting influencer-driven group buying, affect actual sales performance. The analysis revealed that both card clicks (*click_card_t*) and product-detail page views (*product_detail_t*) have statistically significant and positive effects on group-buying sales, whereas video content plays (*video_play_t*) show a negative association. These findings demonstrate that active user behaviors, such as clicking on product cards or accessing detailed product descriptions, are instrumental in driving purchase conversions, while repetitive exposure to similar video content leads to informational redundancy and consumer fatigue, ultimately reducing sales performance. A robustness analysis based on stabilized usage data further confirmed the consistency of these relationships across different timeframes and usage contexts.

In terms of theoretical implications, this study contributes to influencer marketing research by positioning link-in-bio services as an independent and empirically verifiable domain within social media commerce. It advances theoretical understanding by clarifying the behavioral mechanisms through which specific link-in-bio features facilitate or hinder sales outcomes. In doing so, the study expands existing discussions of social

〈Table 7〉 Robustness Check Results

	DV (<i>ln_sales_t</i>)
<i>click_card_t</i>	0.0000** (4.53e-06)
<i>product_detail_t</i>	0.0001*** (0.0000)
<i>video_play_t</i>	-0.0000** (0.0000)
<i>set_userproperties_t</i>	0.0004*** (0.0001)
<i>signup_popup_t</i>	0.0005*** (0.0001)
<i>sidemenu_t</i>	-0.0005*** (0.0001)
Obs.	152
Adjusted R ²	0.7223
Robust standard errors in parentheses	
***p<0.001, **p<0.01, *p<0.05	

media engagement beyond content-level analysis and underscores the importance of platform-level interaction design. By linking user engagement patterns within digital interfaces to measurable commercial performance, this research provides a conceptual framework that explains how micro-level digital behaviors translate into macro-level economic outcomes.

Regarding managerial implications, the findings offer actionable insights for influencers, marketers, and platform developers seeking to optimize the commercial utility of link-in-bio services. Structuring link-in-bio pages to provide intuitive and efficient access to essential product information can enhance user engagement and conversion rates, whereas minimizing redundant or repetitive video content can help prevent user fatigue and sustain attention. These insights highlight the strategic role of link-in-bio services as functional gateways connecting influencer-generated content and consumer purchasing behavior, emphasizing their growing importance within influencer-driven commerce.

Despite these contributions, this study has certain limitations. As the analysis utilized observational data derived from a single platform, potential endogeneity concerns, including the possibility that users with higher purchase intent engaged more frequently, could not be entirely ruled out. Although advanced causal inference methods, such as instrumental variable (IV) or two-stage

least squares (2SLS) estimation, could mitigate this issue, such approaches were not feasible given the constraints of the available dataset. Future research should consider expanding the dataset to include more detailed variables, such as product categories, content formats, and user traffic sources, to explore heterogeneous effects and strengthen causal interpretations.

Therefore, this study contributes to both academic theory and managerial practice by empirically validating the strategic and economic significance of link-in-bio services within influencer-led commerce while identifying promising directions for methodological and conceptual refinement. Further exploration of cross-platform variations, product-specific factors, and consumer behavioral dynamics will deepen understanding of how digital engagement mechanisms shape commercial outcomes in evolving social media environments.

Acknowledgments

This work was supported by the Ministry of Education of the Republic of Korea and the National Research Foundation of Korea (NRF-2022S1A5A2A01047368)

This research was supported by the Sungkonghoe University Research Grant of 2024

References

- Ahn, H. J. (2023, April 19). Instagram now allows adding up to 5 links in profile. *ZDNet Korea*. Retrieved July 18, 2025, from <https://zdnet.co.kr/view/?no=20230419091757>
- Bright, L. F., Kleiser, S. B., & Grau, S. L. (2015). Too much Facebook? An exploratory examination of social media fatigue. *Computers in human behavior*, *44*, 148-155.
- Boerman, S. C., Van Reijmersdal, E. A., & Neijens, P. C. (2015). Using eye tracking to understand the effects of brand placement disclosure types in television programs. *Journal of Advertising*, *44*(3), 196-207.
- Campbell, M. C., Mohr, G. S., & Verlegh, P. W. (2013). Can disclosures lead consumers to resist covert persuasion? The important roles of disclosure timing and type of response. *Journal of Consumer Psychology*, *23*(4), 483-495.
- Cherubini, M., Gutierrez, A., de Oliveira, R., & Oliver, N. (2010, April). Social tagging revamped: supporting the users' need of self-promotion through persuasive techniques. In *Proceedings of the SIGCHI conference on human factors in computing systems* (pp. 985-994).
- Choi, J. E., & Lee, D. H. (2013). The effects of social network service (SNS) network characteristics on users' social capital. *Korean Management Review*, *42*(3), 719-741.
- De Jans, S., Van de Sompel, D., De Veirman, M., & Hudders, L. (2020). # Sponsored! How the recognition of sponsoring on Instagram posts affects adolescents' brand evaluations through source evaluations. *Computers in Human Behavior*, *109*, 106342.
- Djafarova, E., & Rushworth, C. (2017). Exploring the credibility of online celebrities' Instagram profiles in influencing the purchase decisions of young female users. *Computers in human behavior*, *68*, 1-7.
- Evans, N. J., Phua, J., Lim, J., & Jun, H. (2017). Disclosing Instagram influencer advertising: The effects of disclosure language on advertising recognition, attitudes, and behavioral intent. *Journal of interactive advertising*, *17*(2), 138-149.
- Farrar, D. E., & Glauber, R. R. (1967). Multicollinearity in regression analysis: the problem revisited. *The review of economic and statistics*, 92-107.
- Fiske, S. T., and Taylor, S. E., (1984). *Social Cognition*, Random House, New York.
- Hwang, Y., & Jeong, S. H. (2016). "This is a sponsored blog post, but all opinions are my own": The effects of sponsorship disclosure on responses to sponsored blog posts. *Computers in human behavior*, *62*, 528-535.
- Jeon, Y., & Kwon, H. (2021). The role of economic compensation disclosure in influencer marketing. *Korea Business Review*, *25*(3), 181-202.
- Kim, D. Y., & Kim, H. Y. (2021). Influencer advertising on social media: The multiple inference model on influencer-product congruence and sponsorship disclosure. *Journal of Business Research*, *130*, 405-415.
- Kim, N., & Song, S. (2018). A study on the effectiveness of customer engagement brand strategy: Focusing on the case of Snow Peak. *Korea Business Review*, *22*(2), 1-30.
- Kim, D., Park, D., & Park, J. (2018). A study on marketing strategy changes through data mining techniques. *Korea Business Review*, *22*(2), 177-194.
- Kim, S., Choi, H. S., Lee, M., & Lee, H. (2024a). Parasocial interactions and parasocial rela-

- tionships between influencers and followers in social media. *Proceedings of the International Conference on Information Systems (ICIS) 2024*, Bangkok, Thailand, December 15-18, 2024. AIS eLibrary. Retrieved July 18, 2025, from https://aisel.aisnet.org/icis2024/social_media/social_media/1
- Kim, S., Lee, H., & Yang, H. (2020). An empirical analysis of influencer's posting strategies in social media. *Knowledge Management Research*, 21(4), 41-57.
- Kim, S., Ma, I., & Son, J. (2024b). How does stress experienced on Instagram differ from Threads? Comparing social media fatigue based on platform types. *Computers in Human Behavior*, 157, 108249.
- Kim, S., & Yoon, E. (2024, July 31). Everything you need to know about "TikTok Shop," rumored to launch in Korea. Retail Talk. Retrieved July 18, 2025, from <https://retailtalk.co.kr/Issue/?bmode=view&idx=53456038Kiril>. (2024, November 19). *The state of the link-in-bio market 2025*. *Influencers.club*. Retrieved July 23, 2025, from <https://influencers.club/link-in-bio-market-2025>
- Knoll, J., Matthes, J., & Heiss, R. (2020). The social media political participation model: A goal systems theory perspective. *Convergence*, 26(1), 135-156.
- Lang, A. (2000). The limited capacity model of mediated message processing. *Journal of communication*, 50(1), 46-70.
- Lee, S., & Kim, E. (2020). Influencer marketing on Instagram: How sponsorship disclosure, influencer credibility, and brand credibility impact the effectiveness of Instagram promotional post. *Journal of global fashion marketing*, 11(3), 232-249.
- Lee, A. R., Son, S. M., & Kim, K. K. (2016). Information and communication technology overload and social networking service fatigue: A stress perspective. *Computers in human behavior*, 55, 51-61.
- Leung, F. F., Gu, F. F., Li, Y., Zhang, J. Z., & Palmatier, R. W. (2022). Influencer marketing effectiveness. *Journal of marketing*, 86(6), 93-115.
- Lim, H. (2020). A study on data slicing techniques of linear regression models for similar program analysis. *Journal of Digital Contents Society*, 21(7), 1345-1353.
- Lin, S., Lin, J., Luo, X. R., & Liu, S. (2021). Juxtaposed effect of social media overload on discontinuous usage intention: the perspective of stress coping strategies. *Information Processing & Management*, 58(1), 102419.
- Lou, C., & Yuan, S. (2019). Influencer marketing: How message value and credibility affect consumer trust of branded content on social media. *Journal of interactive advertising*, 19(1), 58-73.
- Lynch JG, Marmorstein H, Weigold MF (1988) Choices from sets including remembered brands: Use of recalled attributes and prior overall evaluations. *J. Consumer Res.* 15(2):169-184.
- Matthes, J., Nanz, A., Stubenvoll, M., & Heiss, R. (2020). Processing news on social media. The political incidental news exposure model (PINE). *Journalism*, 21(8), 1031-1048.
- Naderer, B., Heiss, R., & Matthes, J. (2020). The skilled and the interested: How personal curation skills increase or decrease exposure to political information on social media. *Journal of Information Technology & Politics*, 17(4), 452-460.

- Nanz, A., Heiss, R., & Matthes, J. (2022). Antecedents of intentional and incidental exposure modes on social media and consequences for political participation: A panel study. *Acta Politica*, 57(2), 235-253.
- Pang, H., & Ruan, Y. (2023). Determining influences of information irrelevance, information overload and communication overload on WeChat discontinuance intention: The moderating role of exhaustion. *Journal of Retailing and Consumer Services*, 72, 103289.
- Shin, H., Kim, S., Hong, M., Hwang, B. N., & Yang, H. D. (2021). New types of influencers evolved into "Sell-sumers" and their sales strategies on social media. *Knowledge Management Research*, 22(4), 217-235.
- Shrestha, N. (2020). Detecting multicollinearity in regression analysis. *American journal of applied mathematics and statistics*, 8(2), 39-42.
- Sundar, S. S. (2008). *The MAIN model: A heuristic approach to understanding technology effects on credibility* (pp. 73-100). Cambridge, MA: MacArthur Foundation Digital Media and Learning Initiative.
- Sundar, S. S., Knobloch Westerwick, S., & Hastall, M. R. (2007). News cues: Information scent and cognitive heuristics. *Journal of the American society for information science and technology*, 58(3), 366-378.
- Tandoc Jr, E. C., Yee, A. Z., Ong, J., Lee, J. C. B., Xu, D., Han, Z., ... & Cayabyab, M. Y. (2021). Developing a perceived social media literacy scale: Evidence from Singapore. *International Journal of Communication*, 15, 22.
- Thorson, K., & Wells, C. (2016). Curated flows: A framework for mapping media exposure in the digital age. *Communication theory*, 26(3), 309-328.
- Van Overschelde, J. P., & Healy, A. F. (2001). Learning of nondomain facts in high-and low-knowledge domains. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 27(5), 1160.
- Van Reijmersdal, E. A., Franssen, M. L., Van Noort, G., Oprea, S. J., Vandenberg, L., Reusch, S., ... & Boerman, S. C. (2016). Effects of disclosing sponsored content in blogs: How the use of resistance strategies mediates effects on persuasion. *American Behavioral Scientist*, 60(12), 1458-1474.
- Wojdowski, B. W., & Evans, N. J. (2016). Going native: Effects of disclosure position and language on the recognition and evaluation of online native advertising. *Journal of Advertising*, 45(2), 157-168.
- Zhang, Y., Liu, Y., Li, W., Peng, L., & Yuan, C. (2020). A study of the influencing factors of mobile social media fatigue behavior based on the grounded theory. *Information Discovery and Delivery*, 48(2), 91-102.
- Zhang, S., Zhao, L., Lu, Y., & Yang, J. (2016). Do you get tired of socializing? An empirical explanation of discontinuous usage behaviour in social network services. *Information & management*, 53(7), 904-914.

인플루언서 마케팅에서 Link-in-Bio의 역할: 케미(Kemi) 서비스 사례 연구

황봄님* · 김수림** · 신하진*** · 양희동****

요 약

스마트 기기와 네트워크 기술의 발전은 사회관계망 서비스(SNS)를 개인 간 소통의 장을 넘어 기업의 마케팅 및 상품 판매를 위한 핵심 비즈니스 채널로 발전시켰다. 이에 따라 유튜브, 인스타그램, 틱톡 등 글로벌 플랫폼들은 쇼핑 기능을 도입하며 상거래 생태계를 구축하고 있으나, 고객 행동 데이터 확보의 제약과 상품 등록 절차의 복잡성 등 한계가 존재한다. 이러한 문제를 보완하기 위해 하나의 링크로 여러 콘텐츠를 연결하는 멀티링크(링크인바이오) 서비스가 등장하였으며, 특히 인플루언서의 소셜미디어 기반 커머스 활동에서 필수적인 도구로 자리 잡았다. 본 연구는 와이어드컴퍼니(Wired Company)의 멀티링크 플랫폼 '케미(Kemi)'를 사례로, 링크인바이오 서비스가 인플루언서 공동구매 매출에 미치는 영향을 실증적으로 분석하였다. 2023년 6월부터 2024년 4월까지 수집된 일일 데이터를 활용(N=335)하여, 사용자 행동(카드 클릭, 상품 상세 페이지 조회, 비디오 콘텐츠 재생)이 매출에 미치는 영향을 선형회귀분석을 통해 검증하였다. 분석 결과, 카드 클릭과 상품 상세 페이지 조회는 매출에 유의한 정(+)의 영향을 미친 반면, 비디오 콘텐츠 재생은 부(-)의 영향을 미치는 것으로 나타났다. 이는 소비자가 링크인바이오 페이지를 통해 적극적으로 정보를 탐색할수록 구매로 이어질 가능성이 높아지는 반면, 반복적인 영상 노출은 정보 과부하와 피로감을 유발하여 구매 의사에 부정적 영향을 미칠 수 있음을 의미한다. 본 연구는 링크인바이오 서비스가 소셜미디어 마케팅에서 실질적인 매출 성과를 증대시키는 핵심 수단임을 실증적으로 제시하며, 콘텐츠 중복 노출을 최소화하고 사용자 경험을 극대화하는 전략적 콘텐츠 설계의 필요성을 강조한다.

주제어: 링크인바이오, 멀티링크, 인플루언서 마케팅, 소셜미디어

* 이화여자대학교 경영대학 박사과정(spring@thetrinityx.com), 제1저자

** 성공회대학교 미래융합학부 조교수(sulimkim@skhu.ac.kr), 교신저자

*** 이화여자대학교 경영대학 박사(hajinshin@ewhain.net), 제2저자

**** 이화여자대학교 경영대학 교수(hdyang@ewha.ac.kr), 제3저자