Developing the Influencer Marketing Process based on the Data-Driven Service Design

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Abstract: With the continuous growth of the global entrepreneurial economy, research on how startups use social media platforms to achieve influencer marketing communication has become a topic worthy of study. However, although there is research on application rules related to influencer marketing, the detailed steps and methodology corresponding to each rule are lacking. This study uses a service design approach to fill this gap. In this paper, we provide influencer marketing strategies to a startup using the social media-driven service design method. This method combines service design tools and social media analytics techniques. In particular, based on the traditional service design process, we included social media-related data analysis methods and technologies and proposed a social media-driven service design methodology. This research offered ideas and a practical case for future influencer marketing and social media-related service design research.

Keywords: Service Design; Influencer Marketing; Data-Driven; Social Media

1. Introduction

Over the last two decades, with the rise of social media, it has become a common phenomenon for users to obtain shopping information through social media. In the post-COVID-19 era, non-face-to-face transactions have become the mainstream. How startups use social media platforms to achieve marketing communication has become a topic worthy of recent research. Social media is one of the most popular communication tools, and the term influencers themselves are becoming an effective marketing communication form. "Influencer" refers to users who have a certain number of followers on social media, and consumers trust the influencers they support.

They help companies build brand loyalty by posting products or services on social media based on consumers' trust and admiration for them [1]. In return, companies compensate influencers with money or offer free products, services, travel, or experiences. Influencer ads appear on social networks, often carefully crafted to fit into the shooting environment, like advertorials or infomercials [2]. Unlike traditional marketing communication methods, consumers believe that the sources of brand news published by social media influencers, such as Instagram, are more trustworthy and show a more positive attitude towards brands recognized by influencers [3]. From a marketing planning perspective, influencer marketing is an effective branding strategy [4]. Other scholars have also emphasized the role of influencer marketing as a marketing communication and brand promotion tool from different perspectives [5, 6]. For startup companies that lack resources and brand marketing, influencer marketing can help them expand consumers, enhance brand awareness, and promote the development of company marketing services. However, there is minimal literature on how startups conduct influencer marketing. In addition, although there is research on application rules related to influencer marketing [7], the detailed steps and methodology corresponding to each rule are lacking. In this study, we aimed to assist startups with influencer marketing through service design.

Service design focuses on creating value for enterprises by promoting service innovation, and follows the principles of user-centeredness, co-creativity, holism, and so on [8]. According to the "Double Diamond Model," the implementation process of service design is divided into four stages: discover, define, develop, and deliver [9]. In each stage, different tools are used to achieve the goals of the four stages. It is a methodology that can be

applied to marketing services. Designing the Influencer marketing communication of startups from the perspective of service design is a way to help brands improve their Influencer marketing success rate. In this study, the service design method was used to design influencer marketing communication for an air purifier product of a startup. It explored how to help startups to improve their influencer marketing strategies and create value from service design. In addition, we innovatively use social media user data as the data source and apply the social media analytical method, proposing a social media-driven Influencer service design.

The structure of the paper is as follows: We discuss the related literature in section 2, describe our social media-driven service design method in section 3, and the process of the project in section 4, concluding with section 5.

2. Literature Review

2.1 Influencer Marketing

Influencer marketing has become an integral part of brand marketing [10, 11]. Nadanyiova et al. (2020) defines influencer marketing as a tool that refers to famous personalities with large number of followers on social media to help companies promote their brands, products, or services [4]. Seeing a brand being used by the influencer they follow makes it easy for consumers to recognize the brand, increasing brand affinity and boosting consumer demand for the product. Influencer marketing helps companies build brand trust based on people trusting the influencers they know. Marketing planning research shows that influencer marketing is an effective brand strategy, not just a marketing communication tool and an intermediary for well-known brand marketing.

As a brand strategy, influencer marketing has several advantages for startups. First, influencer marketing effectively promotes brands to avoid repelling consumers by advertisements. Second, the company using influencer marketing has added a new channel to obtain consumer groups. Influencers' followers are already a segmented market, targeting more exact groups [11]. Finally, through the interaction between influencers and consumers, the unique resources of influencers can be used to promote the company's products and improve the efficiency of corporate marketing communications. For startups with a low-risk tolerance, influencer marketing is a strategy that helps companies quickly increase brand awareness and encourage consumers to buy products. However, there is minimal literature on conducting influencer marketing for startups. In addition, although there are relevant application rules for influencer marketing, detailed steps and methodologies are lacking, and we need to supplement this limitation.

2.2 Service Design based on Social Media Platform

Over the last two decades, the field of service marketing has grown as scholars have realized the necessity of creating value for the service domain through the application of design thinking and methodologies. Service design helps organizations view services from the perspective of users, balancing user needs and business needs, and aims to create a seamless, high-quality service experience [11]. Service design is a complete methodology for business innovation. We can help startups develop influencer marketing through service design methodology.

Service design brings creative, human-centered processes to business improvement and innovation through design thinking. Overall, scholars believe that the service design process can be divided into four stages according to the "Double Diamond Model" of design thinking: Discover, Define, Develop, and Deliver [12]. In the discovery stage of service design, it is possible to understand the needs and expectations of customers and enterprises by applying ideas such as human-centered thinking. This early process of empathizing with stakeholders helps drive more scientific and competitive design decisions. Traditionally, service designers emphasized the qualitative exploration of systems and personnel, such as in-depth interviews and observations of customer behaviors in physics. With the development of big data technology, Mager (2020) suggested that service designers could improve the exploration in service design using big data and technology-based methods [11]. In previous research, Roberta et al. (2018) collected user data on social media's Twitter to support service design activities [7]. Sul and

Seong (2019) applied consumer data accumulated on social media's Instagram to analyze brand strategy from the perspective of service design and social psychology [13]. Researchers have begun to pay attention to service design using social media platforms and big data.

3. Social Media-Driven Service Design for Influencer Marketing

The service design process includes discovery, definition, development, and delivery [5]. The discovery phase refers to exploring the activities of stakeholders. The defining phase evaluates all the possibilities identified in the discovery phase. The development phase refers to creating solutions and testing and the delivery phase refers to the launch of the final proposal. In general, in the discovery phase, the service design will explore users' and the enterprise's needs through qualitative methods such as in-depth interviews, then describe insights through user journey mapping. Through the interviews and mapping, the pain points of users and enterprises can be determined in the defining phase. In addition, service designers draw user personas by summarizing user characteristics. The new service proposal can be displayed through service blueprints in the development phase. Finally, the service plan is executed in the delivery phase, and the plan is adjusted through feedback from stakeholders.

In this research, we used different tools and methods to achieve the goals of each stage, as shown in Table 1. Our goal was to improve influencer marketing in this research, and for the design results to apply to social media platforms. Therefore, we included social media analysis methods and the traditional service design process and proposed a social media-driven Influencer service design methodology. First, we improved the method in the discovery phase of service design, which is different from how traditional service design collects user and enterprise data through in-depth interviews. We used a web crawler to collect users' social media data, including how they use the product and their experience. Following, we analyzed user data using social media analytics technology. In this way, we were able to collect an enormous amount of accurate user data and gain insight into more appropriate user needs. By analyzing the data

collected on social media, the designers could observe the actual photos and text feelings posted by users and design the customer journey mapping. In the defining phase, through the customer journey map produced in the previous phase, we could understand consumers' demands and pain points, and then create customer personas. We designed the influencer marketing plan based on stakeholder service requirements in the development phase. Finally, we refined our plan in the delivery phase by executing and adjusting the plan.

Table 1. Social Media-Driven Service Design

Phases	Aims	Methods
Discover	Learn about customers' needs, motivations and behavioral patterns.	1. Web Crawler, 2. Customer Journey Mapping
	Learn about companies' requirement, product information, and company resources.	In-depth interview
Define	Define service contents.	1.Social Media Analysis 2.Analysis Pain Points
	Define customer characteristic	Personas
Develop	Propose detail service proposal, test the proposal.	1.Service Blueprint, 2.Kano Model
Deliver	Implement service design proposal	Service Blueprint

4. Case Study: Applying Service Design Process for Influencer Marketing based on Social Media Data

In this study, we designed the air purifier product promotion influencer marketing for the home appliance startups. With the improvements in quality of life, the requirements for air quality have also increased. In homes, the most severe fumes is oil vapor from the kitchen. The air purifier product is kitchen-specific and can remove harmful substances such as oil vapor, odors, and noxious gases. Such products are still the blue ocean of the air purifier market. In the rest of this paper, we describe the process of designing influencer marketing communication

for the air purifier through the social media-driven service design process described in the methodology.

4.1. Discover

In this phase, we discovered the company requirements and customer needs through in-depth interviews, social media analysis method, and customer journey mapping. First, we advocated 40-minute in-depth interviews with related product designers and managers of the company. From the interviews, we received information about the product, including its the mechanical structure and marketing target. The requirement of the company was to plan the marketing communication proposals based on the social media platform, Instagram.

Therefore, we used Instagram to discover the relevant insights of customers. We used a web crawler to crawl posts related to the keyword "air purifier;" the period of crawling content was limited to nearly three months. We then deleted the posts containing advertisements, leaving just the posts of users of the air purifier. Finally, we selected the 30 posts with the highest number of "Instagram likes" and analyzed these customers' processes to develop the customer journey map of the air purifier, as shown in Figure 1.
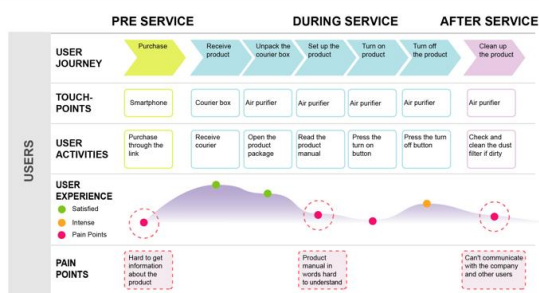
Figure 1. Customer Journey Mapping of Air Purifier Product

Through the customer journey map, we summarized the three major pain points of air purifier users of the brand. First of all, the inconvenient channels for obtaining product information; second, the paper version of the product manual is challenging to understand; third, customers cannot share comments with the company and other customers.

4.2. Define

According to the needs of stakeholders summarized in the discovery phase, the marketing communication requirements were defined, as shown in Table 2. In the pre-service stage, for the pain points of inconvenient channels for obtaining product information, it was necessary to improve the communication channels for obtaining information and promotion. During the service stage, for customers who thought that the paper version of the product manual was challenging to understand, it was necessary to improve the presentation form of product manuals. In the after-service stage, according to customers' needs, it was necessary to improve the communication channels between customers and the brand. Thereafter, the air purifier persona was designed, as shown in Figure 2. Our persona is a visual designer working in Gangnam-gu, Seoul, aged 30. She lives alone in a single apartment. Since there is no separation between the kitchen and the bedroom in the single apartment, she feels distressed about the smell of the room after cooking. Her design experience has encouraged her pursuit of an optimum lifestyle. In her leisure time, she enjoys watching interior bloggers on Instagram and sharing photos of her interior rooms on Instagram.

Table 2. Define Marketing Communication Requirement

Service Stages	Customer Pain Points (Before)	Marketing Communication Requirement (After)
Pre-Service	Inconvenient channels for obtaining product information.	Improve communication channels for obtaining product information and promotion.
During Service	The paper version of the product manual is difficult to understand	Improve the presentation form of product manuals.
After Service	Unable to share comments with company and other customers.	Improve the communication channels between customer and brand.

4.3. Develop

We initially designed an influencer marketing communication plan for the enterprise in the development phase through brainstorming. Then, the actions of consumers and enterprises were expressed through blueprints, and the

details of the scheme were determined.
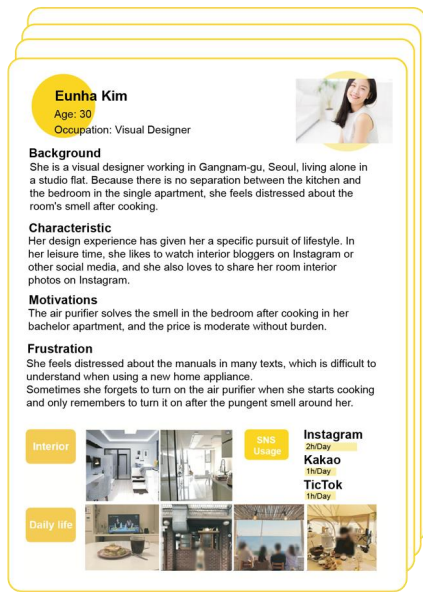
Figure 2. Customer Personas of Air Purifier Product

Through brainstorming, we designed a marketing proposal for each requirement shown in Table 2; the results are shown in Table 3. We recommended a proposal for the

three stages: pre-services stage, during service stage, and after service stage. In the pre-service stage, we contacted SNS influencers to post product videos on their Instagram profiles and share the product shopping website. During the service stage, aiming at the pain points of excessive text and inconvenient reading of the standard paper manual, a video version of the manual was produced in the form of a video demonstration, which was posted on the official account of the company on social media Instagram. Thereafter, we decided the promotional mix and improved communication channels for obtaining product information and promotions. We launched an event on Instagram that allowed participants to tag brand hashtags on their posts, so that customers could become part of the brand promotion. To summarize, the requirements entrusted by the stakeholders were completed through the aforementioned product feature updates and marketing programs. The service was performed according to the service blueprint shown in Figure 3.
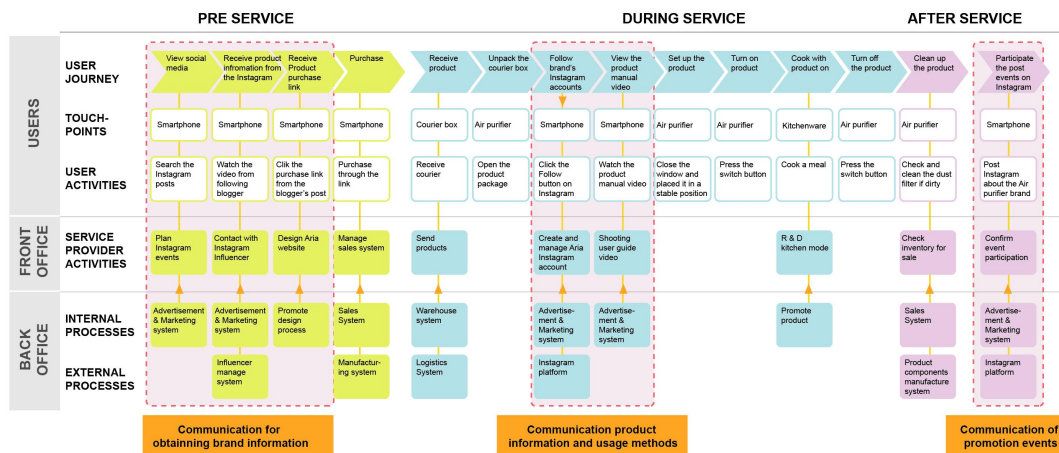
Figure 3. Service Blueprint of Air Purifier Product Influencer Marketing Communication Strategy

Table 3. Marketing Communication Proposal

	Marketing Communication Requirements (Before)	Marketing Communication Proposal (After)
Pre-Service	Communication channels for obtaining brand information	Contact SNS influencers post product video on their Instagram and distribute the product shopping website.
During Service	Communication for product manual and information	Post the video versions of the product manual on the Social Media official account.
After Service	Communication of social media events	Decide the promotional mix and improve communication channels for obtaining

4.4. Deliver

During the Deliver phase, we pilot and modify the program based on the processes in the

service blueprint. First, according to the research results, we proposed cooperating with influencers on Instagram to disseminate product promotion videos of air purifiers to

consumers through influencers and to distribute product shopping websites. In addition, we established a brand account on Instagram and made a video of the product's usage instructions to proliferate on social media. According to the process on the blueprint, the activities of the front office and back office for servicing customers were conducted by the enterprise. In the implementation process, stakeholders' opinions at each stage were collected, and the plan was adjusted and improved to realize the iterative process.

5. Conclusion

Influencer marketing is an emerging research topic in the marketing field in recent years. However, only few studies have proposed a set of influence marketing processes specific to practical operation. This study proposed a set of social media-driven service design processes for Influencer marketing based on the service design process, which provides a set of processes with practical guidance for Influencer marketing. This study confirmed that the service design approach could be used to develop influencer marketing for startups.

In addition, the social media-driven service design methodology we provided in this study, which utilizes social media data in the service design discovering phase, has unique value. The post-pandemic world has led to a new normal of digital transformation, accelerating a shift in human society. Users tend to search for brand information or communicate with other users more often through the internet such as social media. Compared with traditional methods such as user interviews and surveys, service design based on social media platforms is more applicable to the service design process in the digital transformation era, serving as a complementary method to optimize the service design process. In addition, the service design which obtains customer data through social media platforms is a way of creating customer-centered and co-creative mechanisms with customers. Last, but not least, this social media-driven approach is a relatively energy-efficient and sustainable method that can save time and human resources.

However, we should acknowledge that the social media-driven service design methodology can only collect data about social media users and is more suitable for service design related to services or products with extensive social media users.

In future research, we will continue to improve the application of social media data in Influencer service design, hoping to promote the application of big data and technology-based methods in service design and enhance the service innovation of Influencer marketing.

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