



## 4차산업 혁명 시대의 마케팅 쟁점에 대한 개념적 연구

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## Marketing Issues in the Fourth Industrial Revolution: A Conceptual Study

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### [요 약]

본 연구의 목적은 4차산업 혁명 기술이 향후 기업의 마케팅 전략에 미치는 영향을 주요 이슈를 토대로 개념적으로 파악해보는 것이다. 이 연구에서는 전 방위적 모바일 인터넷, 인공지능과 빅데이터로 대표되는 4차산업 혁명 시대에 전통적인 마케팅 법칙들은 어떻게 변화될 것이며, 나아가 4차산업 혁명 시대에 부각되는 마케팅 전략은 무엇인지 등을 문헌연구로 살펴보고자 한다. 본 연구에서는 세부 실행사례를 통해 4차산업 혁명이 기업을 둘러싼 산업 환경과 마케팅 환경에 직, 간접적 영향을 미치고 있음을 파악하고, 이를 근거로 인공지능과 빅 데이터로 요약되는 미래 마케팅 상황에 대처할 수 있는 몇 가지 방안을 제안하였다.

### [Abstract]

The purpose of this study is to examine conceptually the issues of the 4th Industrial Revolution Technology and their role in corporate marketing strategy. In this study, we will examine how traditional marketing laws will change in the era of the 4th industrial revolution represented by Omnibus mobile internet, artificial intelligence and big data, and what are the marketing strategies that emerged during the 4th industrial revolution era by literature study. On the basis of previous studies, the Fourth Industrial Revolution was directly or indirectly influencing the industrial environment and marketing environment surrounding the company. Thus, we propose some measures to cope with the future marketing situation summarized as artificial intelligence and big data based on the detailed implementation examples.

**색인어** : 4차산업 혁명, 마케팅 전략, 인공지능, 빅데이터, 기업 환경

**Key word** : The 4th industrial revolution, marketing strategy, artificial intelligence, big data, business environment

<http://dx.doi.org/10.9728/dcs.2018.19.12.2365>



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**Received** 30 November 2018; **Revised** 16 December 2018

**Accepted** 23 December 2018

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## I . Introduction

The Fourth Industrial Revolution is rapidly spreading to the economy, society, and everyday life.

An American boy told Echo, Amazon's artificial intelligence secretary, to buy a doll house and a cookie. A few days later, a cookie and a large doll house were delivered. A television station introduced a case of parents being embarrassed to pay \$200 without parental permission. At the end of the news, the anchor joked saying "Alexa, please order the house of the doll." This was followed by a big happening. At the time, many of the viewers who played the news mistook this as the owner's order and ordered a doll house [1].

As the 4th industrial technology has developed, there are increasing instances where machines such as artificial intelligence and robots replace people's occupation. The fourth industrial revolution is expected to have a direct or indirect impact on marketing activities that determine the survival and prosperity of the enterprise. Until recently, the Fourth Industrial Revolution was an unfamiliar term. However, since the Fourth revolution is revealed as a product or service, it naturally attracts a large academic interest.

In this context, it is necessary to observe and contrast carefully how the marketing environment of the company has changed in recent years, how the marketing strategy will change accordingly, and how the consumer's purchase journey is changing compared to the past. Furthermore, in a crisis situation where machines and technology may replace human labor, it is necessary to search for a marketing plan that will enable human beings to get synergy with technology and human beings.

## II . Conceptual frameworks

The process of exploring the various phenomena of the 4th industry and including these phenomena into a certain conceptual framework is very difficult and can be controversial. This study is included in a conceptual study as a qualitative research, and generally uses the research methods of descriptive research[17]. Thus, to increase the conceptual validity, this study analyzes the words related with various industrial phenomena related with advertising and marketing.

Indeed, many business professionals understand the concepts of the Fourth Industrial Revolution. The business professionals use their own concepts as a framework for understanding the real business environment. In this study, we first collected

several characteristics related to the Fourth Industrial Revolution through Googling, and categorized them as characteristics and use them to understand related business phenomena. Concepts collected as characteristics are categorized into both general industry and marketing. Industry characteristics include Convergence, Now economy, Movement of the core consumer, marketing characteristics include 4C, customization, service, long-tail rule, consumer decision making, engagement, Omni Channel, Influential Marketing(Figure 1).

**Table 1.** Major concepts concerning the Fourth Industrial Revolution

General industry	Marketing Industry
Convergence, Now economy Movement of the core consumer	4C, customization, long-tail rule, consumer decision making, engagement, Omni Channel, Influential Marketing

### 2-1 The characteristics of the 4th Industrial Revolution

The third industrial revolution, which began in the 1960s, brought about a computer revolution centered on PCs, including semiconductor technology. The characteristics on how our society will change in the fourth industrial age are as follows[2].

First, digitalization becomes common things. Digital is a 24-hour everyday environment so that the word online seems even cliched. Instead, physical and human contact will become scarce. Second, the 4th industrial age is a super connective society. People and people, people and machines, things and things, physical and virtual worlds all connect. Machines and machines will generate new market value by exchanging data without human intervention. Third, the influence of social media becomes enormous. As social media becomes increasingly popular, its influence is tremendous in politics, economics, and society as a whole. With social media, consumers are much more likely to make their voices heard than ever and corporate and customer relationships will be changed. Fourth, the life cycle of a company will sharply decrease. The average period in which companies enjoy success is shortening. The big 500 companies selected by Fortune have been on the same list for 35 years in the 1980s, but now only 15 years remained on the list. Forty percent of these companies are

companies that did not exist 20 years ago. Uber is a good example, which created \$ 17 billion in assets despite the taxi industry's strong rebound,

In Korea, artificial intelligence with similar functions has been pouring into the market. Practical examples regarding this issue are beginning to emerge. AIA Life Insurance in Korea has replaced call center staff with artificial intelligence since 2017. Based on the dialogue learned by the AI counselor, the agent has a conversation with the client, confirms the contract information and the contract. Artificial intelligence counselors are highly evaluated for their marketing efficiency because they can work 24 hours a day unlike people, and respond to customers without waiting time[3].

In this social and economic environment, corporate marketing strategies have begun to show signs of change. In 2016, the US economy recovered and retail sales renewed the highest records, but retailers' stores were closed. JC Penny, a popular US department store, closed 138 stores, K-Mart closed 100 stores, and 68 Macy department stores are closed. Many in-store stores were out of business, while digital retail sales increased in the overall retail market[4]. As shown in the example of "Just Walk Out Technology" of Amazon.co.uk, people shop in the offline store, but the purchasing process and the payment are completely digital, and the purchase process is different from the existing ones. In the traditional marketing, where the market is gradually segmented according to the customers' gender, age and region, new methods are proposed, which suggest customized products and customized shopping based on marketing, artificial intelligence and big data to enhance customer participation and solidarity.

As a result, the Fourth Industrial Revolution is expected to have a direct or indirect impact on marketing activities that determine the survival and prosperity of the enterprise. As a result, companies are increasing their investments and activities in big data and related technologies to prepare for new marketing environments. The expansion of research and adoption of Ad-tech can be understood in the same context[5]. In order to respond to the new corporate environment and technology paradigm, marketing strategies and execution plans of companies are changing drastically.

## **2-2 Changes in the economic and industrial environment**

### **1) Convergence among industries**

In the era of the Fourth Industrial Revolution, people, objects, systems and services are connected by a network. In the meantime, the boundaries between physical and virtual

worlds, offline and online spaces, industries and industries were clear, but in the future the boundaries will be broken. Because advanced digital technology connects highly heterogeneous objects, the distinction between objects becomes ambiguous. The real world in which humans actually live and cyber space have existed separately, but in the future the two worlds are closely connected and become a 'cyber physical space'. In the past, cyber attacks have erased files and removed information, but now cyber attacks are destroying nuclear facilities. An autonomous driving vehicle without human intervention is also connected to the physical reality and the cyber world [6].

The distinction between digital retailing and traditional retailing will soon disappear. Amazon started out as a digital retailer, but now it is moving into physical stores. Amazon has opened a grocery store in Seattle called 'Go', where customers will buy things with 'smartphone apps'. It is difficult to distinguish physical purchasing behaviors from virtual ones.

barriers among industries are also falling rapidly. More than two industries are merged, and competitors in the same industry cooperate. Medical tourism, which is a popular trend in recent years, is an integrated medical and tourism business. The legal-tech industry, which combines artificial intelligence and information technology (IT) with legal services, is also on the rise [6]. Regal Tech, as the term implies, represents a new form of legal service that combines law with technology. The term Fin-tech which combines finance with technology appears before Regal Tech and is now used as a popular word. It means mobile finance as a whole, including mobile payments.

In the background of creating this convergence, the hyper-connectivity of digital technology is located. Connectivity has dramatically reduced the cost of inter-industry convergence, as well as the interactions of companies, employees, customers, and other stakeholders. Connectivity also changed the concept of competition. Even in a competitive environment, companies have to collaborate with external organizations and actively engage with customer participation.

### **2) Now economy**

The term 'Now Economy', an English expression of real-time economy, came along with the fourth industrial revolution. The Now economy means that important decisions are made in real time. The number of consumers who want to buy things and own real products is getting smaller, and more and more consumers are paying for their services through digital platforms. Companies that have dominated platforms in many industries, such as search, distribution, real estate brokerage, and restaurants, are emerging. Almost half of the top 30 brands by 2013 are based on the digital platform[7], and more than 50

of the 100 global companies are making profits from the platform business [8].

Artificial intelligence and big data play a big role in real-time decision-making. According to a Forrester Research report, 20% of the world's leading companies are quick to make decisions and provide real-time operational guidance for big data-based AI systems. By analyzing the Big Data, the supercomputer AI will tell you in real time what you will be offering to your customers, what conditions they will offer to their suppliers, and what they will tell your employees in real time[3].

In 2015, 30% of all US e-commerce were done on mobile. The real-time market through mobile phones is also becoming active. The BMW UK corporation allows customers to purchase cars on their mobile phones. When a customer scans an image of a desired model in print or outdoor advertising on a mobile phone, he or she can check the details of the car and guide them to purchase. Thus, it takes less than 10 minutes to finalize a mobile phone[9]. In the real-time market, interpersonal transactions that connect sellers and buyers are also active. Uber is a representative example. If you put an Uber app on your smartphone, individual drivers appear to be on the map who provide Uber services around you. When you send an application to a driver close to you, the driver informs his/ her name, vehicle type, car number, and comes to the place where the applicant is and car-pools. After all, the fourth industrial revolution era concretizes in the realization of real-time sales, real-time purchasing, and real-time transactions between individuals.

### 3) Movement of the core consumer segment

In the past, elders, males and citizens were symbols of income and authority, but over time, the importance of young people, women, and netizens increased. Young people create new trends in pop culture such as music, movies, sports, food, fashion and technology. When new products are accepted among young people, they usually settle successfully in the mainstream market. These younger generations are also called 'millennial generations'. Those born in the early 1980s and early 2000s were the generation that had been exposed to digital culture from birth. It is common for people to have smart phones in their bodies and to share anything in the SNS space. From this point of view, young people are strongly connected with netizens. Netizens communicate effectively with others while sharing information online. They freely express their opinions and feelings about the brand. They like to rate and comment, and produce content that other people. It is also a 'now generation' that collects, shares, and makes decisions in

real time.

Women do not just look at brands, they also talk a lot, in that they do not hesitate to ask for opinions of friends and family and to get help from others[9]. However, it is expected that it will be difficult to limit the category of core consumer groups in the future. Until recently, the 20/30 age group led online shopping, but now the 40/50 class is rapidly entering the market. In the end, the key consumer segment of the Fourth Industrial age will be the digital native generation, which will be widely distributed throughout the existing generation.

## 2-3. Changes in Marketing Strategy for the 4th Industry

### 1) Changes in marketing mix: Evolution from 4P to 4C

The core of a classic marketing strategy is the 4P strategy. As we all know, the 4P strategy is preceded by product, price, place, and promotion strategies. The traditional 4P strategy evolves into a 4C strategy with changes in the times. 4C is preceded by co-creation, currency, communal activation, and conversation[2]. Co-creation is a new product development strategy that aims to increase the chances of success in new product development by involving customers from the concept phase of the product concept. Consumers are now not only those who buy and consume products, but developers who participate in new product development as well as those who use the product. Consumer opinions and evaluations in blogs and social networks are reflected in product production and provide fresh ideas for new product development.

For example, China Xiaomi has decided to exchange employees with its users through SNS for 30 minutes a day. We believe that customer stories are the best source of information for new product development. Xiaomi has more than 10 million fans in its clubs, many of whom directly participate in product development. XiaoMi handset supports 25 languages, of which only 3 languages were developed by the company and the rest were made by community participants [10].

Community activation refers to the distribution of individuals and individuals, such as Uber or Airbnb, or peer-to-peer. With the 4th industrial revolution, the era of owned economy has declined and it has entered into a shared economic age. The subscription economy is an economic activity that receives a monthly fee and a product or service that a consumer needs, and it can be considered as a service that takes advantages of an owned economy and a shared economy. Starting with the food industry in the early days, cosmetics and luxury apparel have been expanding recently. Hyundai Motor has also entered the subscription economy market with vehicle

sharing services since 2018[12].

Finally, conversation is understood as a change in the concept of promotion. In the past, companies have shifted from one-sided messaging to their customers (outbound marketing), but now they are becoming more aware of the brand by interacting with customers or communicating with each other through the spread of social media (inbound marketing). Xiaomi began to sell out of the perception that Chinese products are cheap because of the opinions and evaluations of Facebook, blogs and other social media. As social media has become more involved in promoting and promoting the brand, consumers have created a new language called 'Publisumer'.

## 2) Providing customized products and services

As the technology and society develop, the market segmentation strategy of the company breaks down more finely to meet the needs of the consumers exactly. Once the market segmentation becomes extremely sophisticated, one-on-one marketing is targeted at individuals. The Big Data System, which analyzes customers' needs in real time, makes it possible to develop tailor-made products that customers desire at the same time while greatly reducing the cost of existing consumer research [13].

Big Data carries out personalized product recommendations. If too many choices are given to consumers, consumers hesitate to purchase. This phenomenon is called the Paradox of Choice. If too many brands are listed on the shelves, it is common to worry and give up on purchases. Among reminder service, personalized discount, personal birthday reminder, reward service for loyal customers, the most preferred customized service for American shoppers is the discount service for the products they have previously requested. Ultimately, it is important to send one message with 100% relevance to the customer rather than to send one hundred messages with 1% relevance. For example, Nueon, a Belgian energy company, sent out different information for each individual based on the big data of 180,000 customers when they sent out a letter to customers about the company's acquisition [1].

Thanks to digital technology, advertisements are beginning to show personalized ads. A digital signage installed in London (outdoor advertising that is installed in a public place and transmits digital image information) has a built-in camera to shoot a pedestrian passing in front of it. After analyzing pedestrian facial expressions to find out what emotions they feel, they send out different advertisement contents according to individual mood[10], which is optimized for pedestrians, while changing the advertisement itself according to the pedestrian response.

## 3) Change in distribution strategy: Crowd-funding

Typically, new products go through processes such as product planning, prototype production, production, sales, and after-sales management. Consumers have traditionally decided to look at new products on-line and off-line before making purchases. In the future, however, products are already purchased and paid at the product planning stage, which is much earlier than production. It takes a few months to a year or more to receive the product, but the product features, features, and designs of the product presented by the manufacturer are preferred. As crowd-funding became active, it became possible to sell 'pre-production' in 'post-production'. In the future, consumers will actively participate in product planning, prototype production, and sales process rather than one-sided selection of products made by companies[8].

In recent years, there has been a shift to a push model with a system that can accurately predict sales. Some automakers predict the car specifications to be sold and then produce the car and then supply it to the dealership. This method is called "predicted delivery," and Amazon has patented a forecasted delivery.

Expectations for robots in inventory management are high. November 11, 2017 was China 's largest shopping season, Guangdong Gunze. Alibaba's sales exceeded 28 trillion won during the day, and the robots placed in the logistics warehouse played a big role in handling 1 million orders per day. The robot found the goods ordered by the customer at the logistics center 24 hours a day and moved them to the package. Robots are equipped with artificial intelligence and communication functions, so they do not have to intervene because robots share information and share work[15].

## 4) From the after service (AS) to the prior service (BS)

Past customer relationships were reactive. When the consumer inquires about the product, or when there is a problem, the service was provided in response to the request from the enterprise. However, proactive services can be provided in the fourth industrial age. The impact of the Internet on things is great. In the near future, sensors will be attached to a variety of things such as clothing, glasses, toothbrushes, as well as all household appliances in the house. By 2020, the market for sensors is estimated at \$ 29 billion, with predictions that 26 billion of sensor-equipped consumer products will be sold [2]. When a variety of sensors send information to the enterprise, they will be prompted to receive repair or inspection services before the consumer recognizes the abnormality of the appliance.

Built-in sensors enable the airline's control center to discover engine flaws on the aircraft more than pilots. Sensors built into the vehicle will identify the state of the vehicle components ahead of the driver and indicate when to replace the parts[7]. The factories in the manufacturing industry now evolve from 'smart factories' to 'cognitive factories', making it easier to predict equipment failures and to develop improved products [6]. In the future, the 'Before Service' market, which provides proactive solutions to customer problems, is expected to grow significantly.

### **5) From the 20:80 rule to the long tail rule**

Each product has a heavy user or core customer. In terms of marketing laws, the number of these high-quality customers accounts for 20% of the total number of customers, but 80% of sales is the key to 'Pareto's law' or '20: 80 rule'. However, in the 4th Industrial Revolution era, it seems that marketing will not be developed with a few good customers. This is because there are many alternatives to access each customer. Word of mouth and brand recommendation from most of the sub-customers will create more important market value.

The long-tail rule is that 80% of the minorities produce more value than the core of 20%. The market moved from large brands aimed at mass sales to niche brands aimed at small volume sales. The Internet has made it easier for small businesses to enter the market, and physical constraints on marketing activities have been eliminated. Companies such as AirBnB, a Ubera accommodation sharing site, a vehicle brokerage service, have been competing in a market competition against big taxi companies and large hotels.

Beacon technology plays a role in the long-tail rule. A beacon is a short distance communication technology, a kind of sensor that allows consumers to recognize themselves with electronic tag chips or mobile phones. Recently, offline stores are collecting customer information as fast as online stores, thanks to beacon installation. When a customer enters a store, the beacon recognizes the purchasing history, birthday, and taste of the person and allows the consumer to recommend or consult the appropriate product. In this way, store staff will be able to offer the full range of services to only a handful of customers [2]. In Korea, Lotte Department Store and other large department stores have installed beacons and provide services according to their location in the form of push notifications.

### **6) Changes in the consumer's decision making process: from the AIDA model to the 5A model**

Traditional consumer buying paths are represented by the AIDA model. According to the AIDA model, the process from

the first recognition of the product to the purchase goes through the attention-interest-product desire-purchase action of the product. This is changing to the 5A model in light of recent trends. It is the order of aware - appeal - ask - ask - advocate. 5A model focuses on the consumer's decision to purchase and behavior after purchase depends on the social network[9]. In the era when SNS activities were not active, consumers made their own purchasing decisions. However, in the hyperlinked society, the purchase behavior of the brand is influenced by the community to which the individual belongs. The 5A model emphasizes the fact that it looks like an apparent personal decision and there are a lot of social decisions when you look inside.

It is a worldwide phenomenon that today's customers are more likely to be influenced by others than with advertising or news. Nielsen's survey of consumers in 60 countries in 2015 found that 83% of respondents rated their friends or family as the most trustworthy "source of advertising," and 66% of respondents rated it as someone else online[9]. Any reference to a brand in any form, such as a question or information exchange, or a brand recommendation, in an online network space can lead to marketing performance. At the same time, it has become a new challenge for companies that manage customer complaints from and out of social media. The dissatisfied customer's word of mouth spreads more than three times more than satisfied customers[14].

## **2-4. Types of Marketing Emerging in the Fourth Industry Age**

### **1) Engagement Marketing**

A customer experience is a quick response to customer inquiries or complaints, a simplification of the entire purchase process so that the customer can easily close the purchase, To be able to track it in real time, or to interact with customers through multiple channels, such as phone or email, website, or direct store experience. If customers feel satisfied with their purchase journey, their preference for the brand will increase, and brand loyalty, brand advocacy and referrals will increase as the final purchase leads to repurchase.

Kotler and his colleagues[9] presented the following ways to increase customer participation in the advanced digital age:

First, it is a way to enhance the digital experience through mobile apps. About 80% of mobile data traffic occurs on smartphones. Americans identify an average of 46 smartphones a day. Because of its strong attachment to smartphones, smartphones are the best channel to attract customers. Most of

the top 100 brands in the world use mobile apps to reach customers. Pokemon game, which became a hot topic in the world, attracted customers by using augmented reality technology. L'Oreal cosmetics also developed an Augmented Reality app to improve the problem of buying cosmetics online. Normally, when you purchase cosmetics online, consumers are reluctant to buy cosmetics because it is difficult to judge whether a product will fit well with your skin. However, with the Augmented Reality app called Makeup Genius, customers were able to use their smartphone camera as a virtual mirror to try out the product, allowing them to see what they would look like when they used the product .

Second, it induces customers' participation through social relationship marketing. In 2016, the number of social media users reached 2.3 billion. That's 31% of the world's population. In addition, about 90% of UK customers see the brand in social media and recommend it to others. In the past, the company's call center led the relationship with the customer by providing promotional information to the customer, but now the relationship begins with the customer asking questions via social media. It turned outbound marketing into inbound marketing. The customer relationship in social media has several characteristics: i) continuous conversation, not one-off, ii) large number of conversations so many customers can participate, and iii) And iv) listening to customers' opinions so that problems related to the brand can be identified early.

When participation marketing becomes active, there is a bond and trust between the company and the customer. Since then, consumers are voluntarily spreading their experiences, which helps companies reduce advertising costs and improve sales steadily.

## 2) Omni Channel Marketing

Omni Channel Marketing is a marketing strategy that utilizes online and offline marketing. The term omni channel began to be used online to mean an end to offline purchase (online to offline), but now it is a marketing strategy that combines both on and off, whether starting offline or ending an online purchase (June, 2016). Consumers want to get the same price and coupon benefits by freely crossing all channels including online, offline, and mobile.

The concepts that are often talked about in OmniChannel marketing are showroom and web loom. Showrooming is a way to make purchases online, but to make a purchase decision by browsing offline stores. For example, if you are purchasing an expensive product, you should first check the product in your local store, determine the brand you want to buy, and then buy online to find a cheaper site. In offline shopping, people

experience products through human senses, but it is difficult to experience sensory experiences online. But using showroom technology, you can also enjoy the benefits of offline shopping online. IKEA uses augmented reality apps and print catalogs to help customers find affordable furniture. Customers can preview what they see when they put their furniture in their home by placing the print catalog where they will be placed and the app screen.

Web rooming can be understood by associating the counter process with the show rooming. The final purchase behavior occurs in the offline store, but the online purchase journey is included in the meantime. After surfing the web and getting to know a specific product and getting more information about the product in the SNS space, final purchase is the most common way to visit an offline store. One of the things in shopping offline is missing the discount coupon. Even if you have received it before, it is likely to become obsolete because it is often overdue or not stored. The big supermarket target in the US (TARGET) puts a discount coupon into the cartwheel app, taking this into account. Simply add the desired product to your cart store app in your in-store store and you'll automatically receive a discount. Since then, the target shopping time using mobile has increased 250% from the previous year[16].

Near-field communication (NFC) and radio frequency identification (RFID) are examples of applications that utilize web looming in offline channels.

The Apple Store and Macy's Department Store installed beacons throughout the store. Once the customer's smartphone enters the store, the company can figure out where the customer is in the store. It is possible to see which stores customers visit frequently and how long they stay in department stores. Burberry stores tagged all apparel with RFID tags. This tag will watch a video that explains the product through the room meter whenever a customer wears it[9].

In general, customer data from stores can range from 60% to 90% (Somerset, 2015). Improving data capture rates can help make a customer visit a store a regular customer. It is possible to provide a customized service based on the customer's preference and purchase behavior. Personalized services and information can reduce customer discomfort and increase the likelihood of purchasing. In the retail industry, the one-time buyer's retention rate is about 30%, but the twice-buyer retention rate increases to 70%. In other words, 70% of the original purchasers do not search for a store again, and converting them to repeat buyers will increase the company's sales.

The starting point for OmniChannel marketing is that consumers are increasingly dependent on mobile devices, and

they begin to experience the brand while moving on / off from time to time. Then you should provide a consistent experience, seamless experience without inconvenience to customers, rather than offline and online. This is the charm of Omni Channel marketing. By integrating off-line and online purchase journeys, and organically linking experiences in each space, you can increase customer satisfaction and drive a faster purchase journey.

### 3) Influential Marketing

The number of users of social media, such as Facebook, Instagram, and YouTube, is larger than any other country in the world. In recent years, more than 600 million enthusiastic users are active per month. They share 40 billion photos and publish more than 90 million photos and videos every day[4]. Young consumers who spend a lot of time in the online space are more likely to look for clothes, bags, shoes, and so on that are active in social media, rather than loyal to a particular brand. More than entertainers, the influence of social media stars, Influencers, is growing. According to an eMarketer survey, 75% of marketing professionals believe that in-flight marketing is generating revenue with new customers, and 90% believe that it raises brand awareness[4]. Indeed, in the industry, Influre Marketing is reporting that brand awareness has increased and sales have increased. In recent years, more and more companies are searching for influential influencers using artificial intelligence assistants.

The most important industries that perform in-flight marketing are food / beverage, cosmetics, and fashion companies. More than 40,000 influenza workers work in these industries. Looking at recent trends, younger people favor Instagrams rather than Facebook. Because younger generations are accustomed to video culture, they are more familiar with Facebook than with Facebook. This is why many companies are using Instagrams for marketing. Approximately 70% of American brands rated the Instagram as a marketing channel in 2017[4].

InstaFluencers, the compound word for Instagram and Influencer, are the most famous stars in Instagram. They have at least a million followers and earn millions of dollars a year to upload photos that directly or indirectly advertise a particular brand in connection with their daily lives [4]. It's too expensive to post just a couple of photos a week, but it can be more cost effective than mass media advertising, where prices are more expensive and their effects diminish. As a result of research on the users of Instagram, the behavioral effects leading to Learning, Website visit, and Purchasing of the product are seen to be large after viewing the advertisement post of the

Instagram, It is expected to spread further.

## 3. Conclusion and Suggestions

Whenever new technology emerged, experts predicted unemployment. This 'technological unemployment' is likely to focus on ways to save labor rather than finding new uses for labor. In the mid to late 1990s, bankers expected that bankers' jobs would come from ATMs coming in. But reality turned out to be the opposite. By using ATM machines, we reduced the operating costs of bank branches, resulting in a 40% increase in bank branches. The number of bankers per branch decreased by one-third, but as the number of branch offices increased, the total number of bankers increased[7].

In the same vein, full-scale digitization, automation, and mechanization, which represent the fourth industrial revolution, will change not only in eliminating jobs, but in ways that reduce costs and increase demand. It is necessary to recall that the number of jobs requiring computers in the past has increased considerably rapidly. It is time to look for a marketing strategy that can bring positive effects to the market, rather than being pessimistic about the pessimistic outlook that the Fourth Industrial Revolution might bring.

Here, we make some suggestions regarding how the company can prepare the future.

First, you have to worry about human-centered marketing. The more digitized the business and customer relationships, the more likely human contact will become more scarce, and the scarcity will increase market value. The way employees respond to customers makes the highest profits for Apple stores around the world[9]. At a table called "Genius Bar" in Apple stores, genius and customers work together to communicate with the device, rather than simply selling the product. One employee is dedicated to serving one customer and providing a kind and thorough service. Despite the paradoxical trend towards the advanced digital age, the attractiveness of human brands will increase. A brand that looks like a friend, like a family, will have marketing success. In the world of artificial intelligence such as automation factory, unmanned automobile, voice controlled household robots, robot doctors and robot lawyers in a few years, human-centered marketing becomes the key to enhance brand appeal.

Human-centered marketing leads to extreme customer orientation. Amazon.com is one of the best-known companies in the US in 2014 [2]. This is because the company carries out world-class customer service. Digital preference is another



word for customer preference. Let's make specific plans to provide the best service throughout the consumer's purchasing process. Purchasing Itinerary At any stage Consumers are more likely to cut off transactions with the company if they feel the service is bad. As the digitalization progresses, it should not be overlooked that the expectation of the consumers in the business is proportionally increased. Then, you have to build a sales method or customer relationship that respects and prioritizes your customers to the point where they want to overdo it. Jumbo, a retailer in the Netherlands, has a contract that says, "No customer is paid for a fourth customer in a row" [2]. The case of all employees learning how to use the cash register to keep this promise is a clear indication of what customer orientation is. Many companies say that they practice customer preference, but consumers often do not.

We also have to worry about customer-oriented sales methods. In general, people like to buy things, but when they are forced to buy, they do not want to buy anything at all. Anyone who has visited the store and hurried out of the store if the clerk seems to have been forced to buy something. In the same context, if a 'pop-up' window opens online, it will be closed as soon as possible. Modern sales techniques should help consumers to search for things and make purchases themselves, rather than outbound, which forces consumers to buy things. That is, they should drive selling without selling [2].

After all, what kind of transformation should traditional retailers prepare specifically? Most retailers with off-line stores must move from selling goods to selling services and experiences. While online retailing has the advantage of offering products cheaply and expeditiously, the services that people receive are still addressed by visiting in-store stores. In the future, it will be necessary to focus on providing useful services to customers, such as repair and service of bicycles, meeting with bicycle club events and meetings. Buying a cup of coffee at Starbucks for 5,000 won is not because of the coffee beans, but because it gives the Starbucks coffee and drinking experience high value. If the products sold in the retail industry are to be replaced on a regular basis, such as cosmetics, water purifier filters, pet food or pharmaceuticals, it would be a good service to send a refill message before it is exhausted.

Service is a strong experiential factor. In this sense, physical stores should maximize the enjoyment of 'experience shopping'. When you go to a large shopping mall, you can see the colorful colors and fragrant fruits, and you can taste the delicious food, so the consumer step is not cut off. Customers will continue to visit if they provide sensory experiences that stimulate the senses and services that prioritize customers.

On the other hand, it is necessary to seek not only the

effect of marketing but also the way to increase efficiency. In order to increase the cost efficiency of marketing, it is necessary to make full use of 'super connectivity'. The biggest benefit of connectivity in a customer's journey is to engage in conversations between customers and consider customer conversations as leverage. Leverage means leverage, which means investing in leasing money in the financial sector to maximize returns. It is a strategy to leverage others' money to increase their return. As conversations, brand sharing, and referrals become more active, consumers can reach out to brands and attract consumers without relying on expensive advertising.

In order to enhance efficiency, we need to establish a physical distribution system that utilizes 4th industrial technology. Global retailers lose more than \$ 90 billion annually in lost revenue opportunities due to inventory shortages and shortages. Increasing the confirmation work of the clerk to prevent the shortage will result in more labor costs. To solve this problem, artificial intelligence robots have begun to be used. The robot moves around the store and checks the inventory to ensure that there are no shortcomings and that the products are on different shelves. Drones, autonomous vehicles, and self-propelled trucks, but long-haul logistics delivery also entered the test phase. The physical distribution such as the delivery and storage of goods takes up about 15% of the marketing cost of the company, but it can greatly reduce the logistics cost by using the fourth industrial technology. If only the detailed regulations for the commercialization of the technology are available, there will be a revolution in the delivery system.

The limitations of this study are as follows. This study was focused on marketing strategy to prepare for the 4th industrial revolution era, based with theoretical and literature studies. Since there can be many predictions of changes in the business environment and marketing trends due to technological advances, it was impossible to discuss empirical effects. In addition, this study is descriptive and exploratory, and, in this sense, has limitations in terms of elaborate logic and solid theoretical background. Further empirical studies will be recommendably followed in the future.

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