# Digital Marketing Enters the Phase of Practical Implementation

**Hiroyuki NITTO and Hiroyuki NAKAMURA**

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"Digital marketing" is an umbrella term for marketing activities conducted through digital media for products and services. By connecting with consumers through electronic equipment/devices, companies can obtain a variety of customer information such as purchase histories in the form of digital data.

A look at companies that take an aggressive approach toward digital marketing reveals that with their owned media such as websites and smartphone applications playing a central role, they are striving to optimize their overall marketing activities by putting emphasis on integrating physical stores with online channels.

Companies are increasingly adopting the omni-channel strategy with the aim of approaching customers by organically linking all channels, ranging from digital media to brick-and-mortar stores. Successful implementation of such strategy will enable companies to apply digital marketing techniques to physical stores and to create a comprehensive customer profile, which was not possible only with data collected at physical stores, thereby allowing companies to devise and implement effective marketing initiatives.

In the past, in terms of marketing, there was a clear boundary between potential and existing customers and between advertising and sales promotion. However, with the advent of digital marketing, these boundaries have become vague, enabling companies to conduct marketing activities by organically linking potential and existing customers as well as advertising and sales promotion. In response to this trend, marketing solutions offered by vendors are evolving in the direction of covering overall marketing activities.

Particularly important among the key points in and challenges facing the promotion of digital marketing within companies is the establishment of key performance indicators (KPIs) and application of the PDCA (plan – do – check – action) cycle based on the KPIs. The PDCA cycle for digital marketing involves the implementation and analysis of marketing initiatives created based on the KPIs and hypothesis verification.

# I  What is Digital Marketing?

## 1  Definition of digital marketing

"Digital marketing" refers to marketing activities implemented through digital media for products and services. While Internet websites constitute the most common form of digital media, there are many other forms, including e-mail, mobile applications that run on smartphones and tablets, and digital TVs.

When connections are established between companies and consumers by using electronic equipment/devices, thus enabling electronic commerce (EC) and the use of electronic money as a means of settlement, contacts with customers can be digitized. Digitized contacts with customers enable companies to acquire a variety of customer information such as purchase histories in the form of digital data.

The concept of triple media marketing has arisen, which divides media into three types of marketing channels, namely, owned media, paid media and earned media (Figure 1). Owned media is the media that a company "owns," which includes a company-managed website, a contact center and a members' magazine. Paid media is the media that a company purchases as an advertiser such as TV commercials and listing ads. Earned media is essentially social media such as blogs, Twitter and Facebook. In all three media types, the importance of digital media has been increasing.

Among the above, particularly, owned media now offers greater options for digital media. In the past, physical stores played a central role as part of owned media. Now, however, more and more companies are operating their own websites and implementing electronic commerce. Considering the major role of each type of media, paid media plays an important role in fulfilling the functions of "brand recognition and customer attraction" and earned media is expected to achieve "information sharing and dissemination." Then, what about owned media? It is reasonable to assume that the major role of owned media is "building relationships with customers." In particular, manufacturers, which have traditionally found it difficult to establish direct links with customers, can now proactively build relationships with customers by enhancing their owned media.

## 2  Features of digital marketing

Digital marketing is characterized by the following three features.

**(1) Enabling the continuous as well as real-time acquisition, accumulation and utilization of data**
Because digital marketing enables a company to approach its customers through digital means, data on individuals' behavioral histories are generally automatically accumulated. By making use of these large amounts of accumulated data, so called "big data," it becomes possible to achieve greater precision in analysis than was previously possible and to implement measures based on the results of such analysis.

Furthermore, with the spread of smartphones and the development of technology for real-time analysis, a customer's current status can be determined and an immediate response given, such as displaying a targeted advertisement to a customer on the move.

**Figure 1. Outline of triple media**



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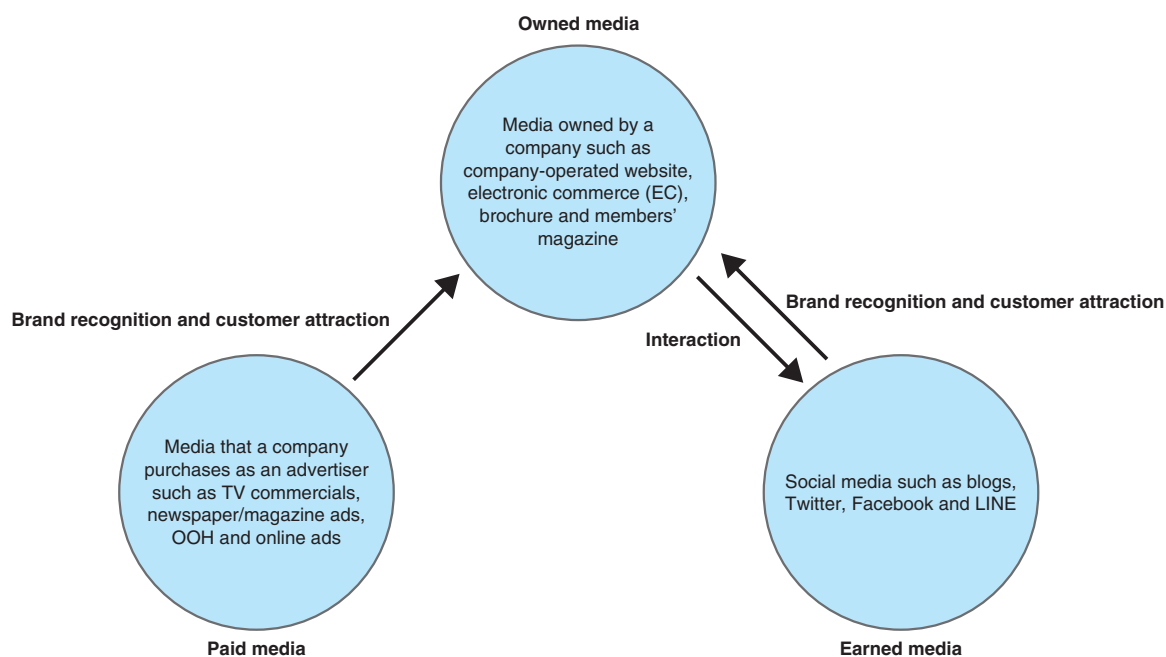
**(2) Personalized marketing**

With the widespread use of digital settlement systems such as electronic money, it has become possible to track the actions of individuals including their purchase histories and subsequent payment actions.

In the retail sector, increased introduction of not only point of sales (POS) systems but also membership cards and electronic money has enabled the analysis of POS data with customer ID. Such analysis has enabled retail companies to engage in promotional activities by conducting one-to-one marketing and/or dividing consumers into highly specific segments. While the use of data with customer ID regarding their awareness and behavior raises the issue of personal data protection, in the future, there will be even greater demand for analysis and marketing initiatives that are based on personal data that can identify an individual.

From the viewpoint of the consumer, ever larger amounts of available information have led to many individuals having difficulty in selecting appropriate information and experiencing so called "information fatigue," such that there is an increasing need to provide consumers with information that is tailored to their individual situations.

**(3) Cross-channel marketing**

By devising various uses for digital data, it becomes possible to combine data obtained from many different channels.

For example, by analyzing a company's website, it is possible to determine the search words that have been entered and the advertisements that have been viewed by a specific person based on a unique ID called a "cookie" that is assigned to that person. Furthermore, it is also possible to determine how long and which page of the site a person has been viewing. The person's name and attributes are not usually known. However, by using a technique called "social login" to log in to an application on the site, the relevant cookie ID can be associated with the name of a social media account such as Facebook or Twitter. The name and attribute information that is associated with the account name can be integrated with on-site behavior.

## 3  Optimization of overall marketing

As the digital proportion of customer contact increases, it has become easier to determine the behavior of a consumer at each step of the buying process. For example, an analysis of a company's website and EC will reveal the search words that are input, the site pages that are viewed and the amount of time spent looking at such pages. An analysis of social media may reveal comments that a consumer has made before making a purchase, allowing a company to understand the situation existing prior to the purchase, the background behind the purchase, the reason for making the purchase and so on.

**Figure 2. Customer contact at each purchase step (customer behavior)**
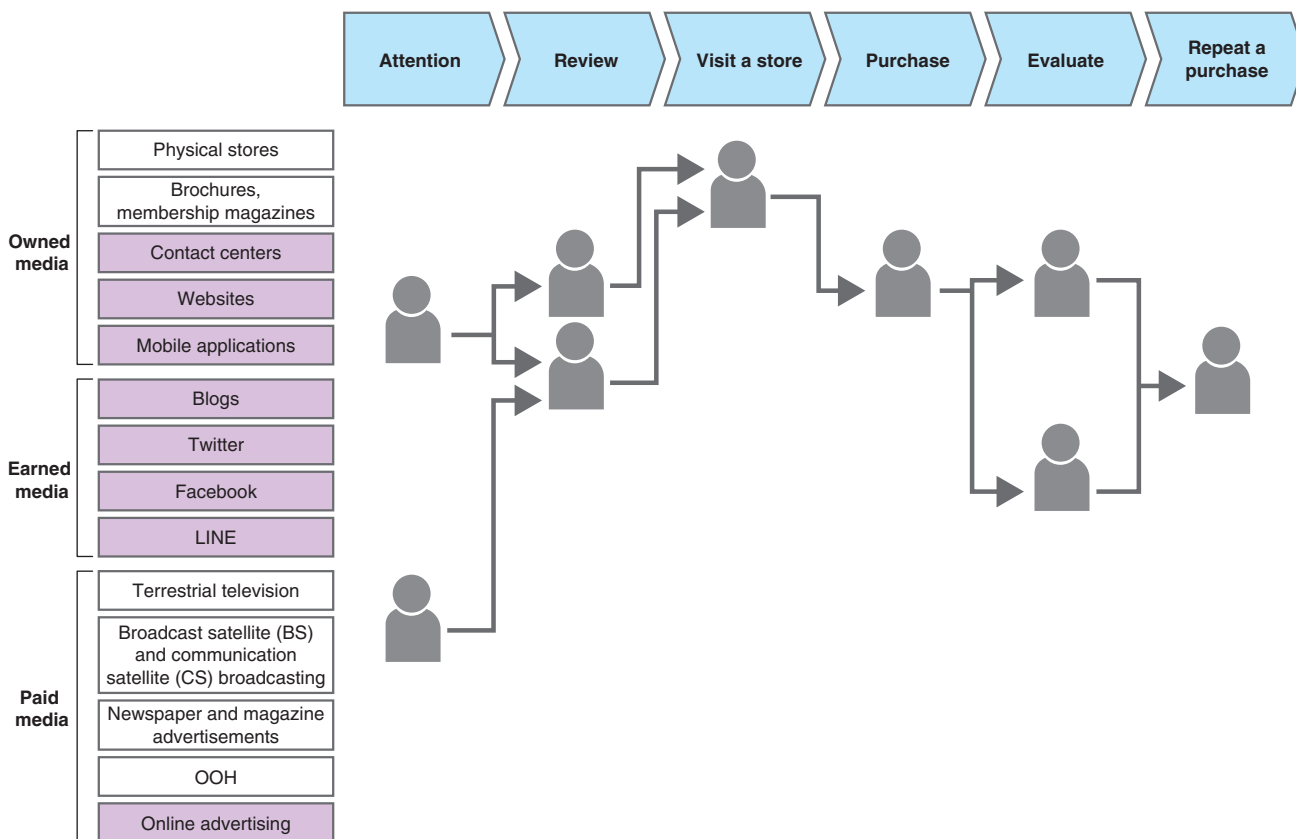


Note: Shaded boxes indicate digital media.

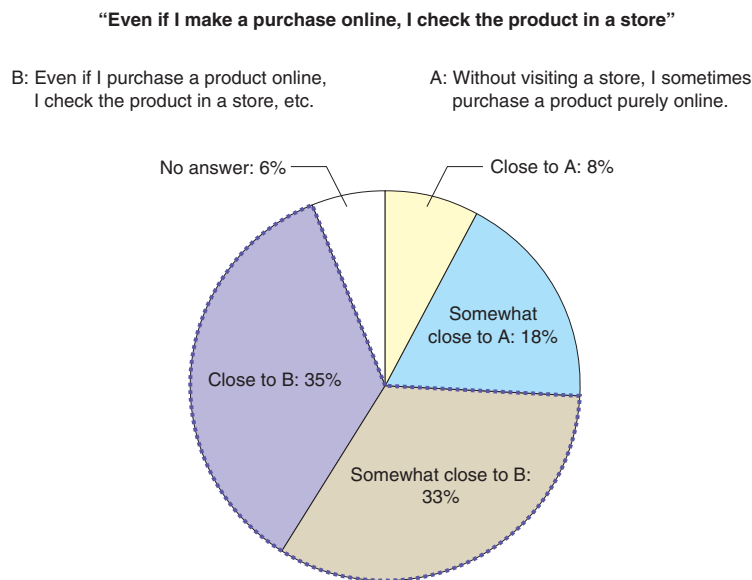Digital Marketing Enters the Phase of Practical Implementation

By increasingly engaging in these analytical efforts, companies can have a clear idea of the sensory and emotional values that customers gain through the use of their products/services in the form of effects, excitement and satisfaction under the umbrella concept of "customer experience."

Furthermore, as shown in Figure 2, the steps taken by consumers before and after making a purchase involve a variety of media. Therefore, digital marketing is not just limited to the digital domain, but also touches the real world including brick and mortar stores. The Questionnaire Survey of 10,000 Consumers conducted by Nomura Research Institute in 2012 asked consumers

about their use of physical stores and the Internet. About 70 percent of respondents stated that "even if I make a purchase online, I check the product in a store." Only 26 percent of respondents stated that they make their purchases purely online (Figure 3).
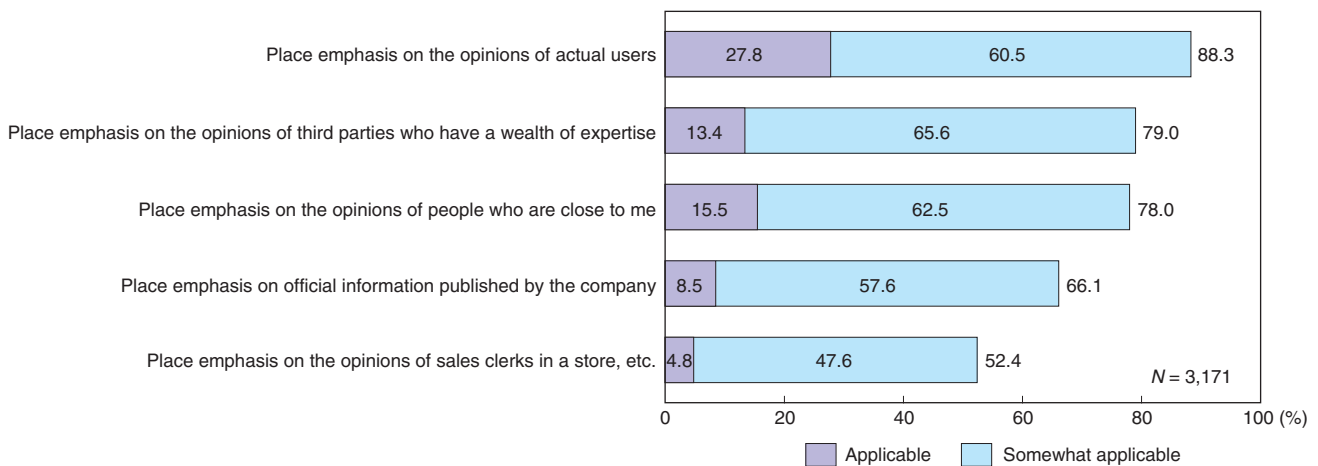
In addition, to the question about the information on which emphasis is placed in choosing products and/or services, most respondents answered that they "place emphasis on the opinions of actual users." The result suggests that the influence of various information sources as represented by social media has become much greater (Figure 4). In this way, the purchasing behavior of consumers is constantly changing by involving both

**Figure 3. Using both physical stores and the Internet for different purposes**



"Even if I make a purchase online, I check the product in a store"

B: Even if I purchase a product online, I check the product in a store, etc.

A: Without visiting a store, I sometimes purchase a product purely online.

No answer: 6%
Close to A: 8%
Somewhat close to A: 18%
Close to B: 35%
Somewhat close to B: 33%

Note: The survey was a door-to-door survey that targeted people (both male and female) aged 15 to 79. The number of respondents was 10,348.
Source: "Questionnaire Survey of 10,000 Consumers" conducted by Nomura Research Institute in 2012.

**Figure 4. Information on which emphasis is placed in choosing products and/or services (multiple choice)**



| | Applicable | Somewhat applicable | Total |
|---|---|---|---|
| Place emphasis on the opinions of actual users | 27.8 | 60.5 | 88.3 |
| Place emphasis on the opinions of third parties who have a wealth of expertise | 13.4 | 65.6 | 79.0 |
| Place emphasis on the opinions of people who are close to me | 15.5 | 62.5 | 78.0 |
| Place emphasis on official information published by the company | 8.5 | 57.6 | 66.1 |
| Place emphasis on the opinions of sales clerks in a store, etc. | 4.8 | 47.6 | 52.4 |

N = 3,171

Note: The survey targeted people (both male and female) aged 15 to 79. The number of respondents was 3,171. Gender and age distribution conformed to the composition of the population's age and gender.
Source: "Online Consumer Questionnaire Survey" conducted by Nomura Research Institute in November 2012.

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physical stores and the Internet. Therefore, the knowledge obtained through digital marketing should be applied to mass marketing and physical store marketing as well.

For example, by targeting those users who have responded to a company's website or an online advertisement (by analyzing their profiles according to their cookies), it would be possible to deploy strategy for mass marketing and physical store marketing that is aimed at such target users.

Conversely, a hypothesis can be established about the characteristics of purchasing behavior as obtained through mass marketing. Based on such a hypothesis, digital means can be used to link with the behavior of individual users and establish communication at an opportune time. As described above, digital marketing can be applied to every facet of marketing including brick and mortar stores (the real world), and thus play a major role in achieving the optimization of overall marketing.

# II Digital Marketing Case Studies

## 1 Ryohin Keikaku's features of digital marketing

As an example of companies that have embraced digital marketing, this chapter discusses the efforts of Ryohin Keikaku [Note 1].

Ryohin Keikaku offers a wide variety of products that enrich lifestyles under the "MUJI" brand name and is aggressively implementing digital marketing based on the key concept of "Fusion of the Internet and the real world." Ryohin Keikaku's annual EC sales for the fiscal year beginning March 2013 and ending February 2014 stood at 12.446 billion yen. In 2006, online sales passed those of the company's store in Yurakucho and became the outlet achieving the largest sales. Since 2011, the company has seen double-digit growth for three consecutive years. In terms of consolidated sales, the share of online sales was 7 percent.

A look at current trends among Ryohin Keikaku's online members reveals that 38 percent used the online store at least once in the last two years, and that only 16 percent made a purchase within the last six months. As of June 2014, the number of its online members stood at over 4.6 million. However, more than 60 percent of these members have not used the online store.

To understand the behavior of its customers, Ryohin Keikaku gives greater importance to examining time-based customers' brand experiences (time axis), i.e., time spent by customers throughout the entire process of attention → purchase → use/consumption, time spent in a store and at the website, etc., and aims to increase such time. This concept is called "customer

time" and is similar to "customer experience." In particular, considerable efforts are being made to verify and analyze customers' impressions of products after purchase and to predict which products they will buy next.

## 2 Ryohin Keikaku's specific measures for digital marketing

The WEB Business Division of Ryohin Keikaku is responsible for digital marketing and plays three main roles:

- Driving customer traffic to stores
- Giving customers access to MUJI products for purchase through the online store
- Promoting communication with customers in cooperation with Kurashi no Ryohin Research Institute (an in-house organization that promotes product development in collaboration with consumer testers, etc.) and through the use of social networking services (SNS)

By performing these roles, the WEB Business Division has increased sales among the 40 percent of the company's customers who use the online store by encouraging them to become active users. At the same time, it has strengthened its approach toward non-users of the online store (60 percent) through email newsletters, social media and mobile promotions.

In 2009, as part of the efforts to encourage customers to visit stores, Ryohin Keikaku launched a digital coupon campaign by sending email newsletters carrying coupons that could be used at stores. The company gathered all sorts of data such as the products that customers bought and whether they used coupons, and applied such data to digital marketing.

The service whereby customers can order merchandise online and then pick it up in a store, which was started in 2011, has grown to account for 4 percent of all orders, achieving annual sales of 400 to 500 million yen. Although these orders are recorded as store sales, it is possible to acquire behavioral data during this ordering process because the process occurs over the Internet. These data reveal that even customers who use the Internet are also customers who buy products in stores.

In 2009, the company opened a Twitter account, followed by a Facebook page in 2010, a mixi page in 2011 and a LINE business account in 2013. In a marketing campaign conducted by a store based on information originating from these social media, such information has contributed to 3 percent of overall sales of the store. The goal of the use of social media is not only to receive "Likes" but also to drive customers to the company's own media (website, EC site and stores). What is important for a company is to attract consumers to the company's own media by utilizing social IDs that

provide data other than purchase data such as behavioral data and unstructured data. (Generally, it is difficult for companies to obtain such other data.)

In addition, to deal with a market environment where many companies find it difficult to get their messages across to consumers, Ryohin Keikaku now avoids conventional and expensive mass media such as flyers and TV commercials, and has instead developed its "MUJI passport" application, which was first offered to the public in July 2014.

In the past, measures adopted to drive customer traffic to stores such as those through email marketing and in collaboration with other companies have often resulted in being only locally and/or partially effective, and such measures were unable to support all the company's stores. By learning from such experiences, the company developed a "MUJI passport" smartphone application. MUJI passport is equipped with "MUJI miles," which customers can earn while shopping at the company's stores nationwide and also online. Customers can also earn miles when they check in to the store. Other convenient functions offered by MUJI passport include "Shopping Guide," which enables customers to check product inventory. For example, by using the "Shopping Guide," a customer can easily find a desired product from among the 7,500 items that MUJI offers. There is also a function to display in real time the nearest store that has the desired product in stock.

The objective of "MUJI passport" is to promote communication with loyal users of MUJI without distinguishing between the online and real-world environments. Achieving a sustainable increase in customer traffic will lead to an increase in sales, enabling visualization of the effects of marketing measures. "MUJI passport" has enabled the company to collect a wide variety of data on its customers such as "gender," "age," "program level (according to the number of miles earned)," "purchase history," "total spending/purchase frequency" and "stores visited."

An analysis of purchase data stored in "MUJI passport" produced the surprising finding that the largest group of purchasers of "sofas that are a good fit for their body shape" are males in their 20s. Based on this finding, in July 2014, the company launched an online sales campaign dubbed "MUJI to Sleep," featuring a neck cushion that used the same material as that used for the sofas. The campaign led to a three-fold increase in the sales of neck cushions [Note 2].

As described above, while fully leveraging the brand power of MUJI, Ryohin Keikaku has been implementing various measures for digital marketing with the central role played by owned media such as its website and MUJI passport. Given its emphasis on seamless integration of online and stored-based sales, Ryohin Keikaku can be regarded as an excellent example of companies pursuing the optimization of overall marketing.

# III  Linking the Digital and Real-World Channels

## 1  Impact of increased adoption of omni-channel strategy

In the future, the impact of digital marketing will span every corporate activity. Behind this trend is consumer buying behavior that involves a wide range of media, both digital and real world, as described in Chapters I and II. In response to such changing consumer buying behavior, companies are increasingly adopting the omni-channel strategy with the aim of approaching customers by organically linking all channels, ranging from digital media to brick-and-mortar stores. These moves toward omni-channel marketing cannot be overlooked.

Along with the progress made by companies in establishing customer contacts through omni-channels, channels other than digital media such as brick-and-mortar stores can also benefit from digital marketing.

## 2  O2O is digital marketing aimed at brick-and-mortar stores

A typical example is known as "online to offline" (O2O). Among omni-channel retailing options, O2O is a marketing strategy designed to drive customer traffic from digital media to physical retail stores.
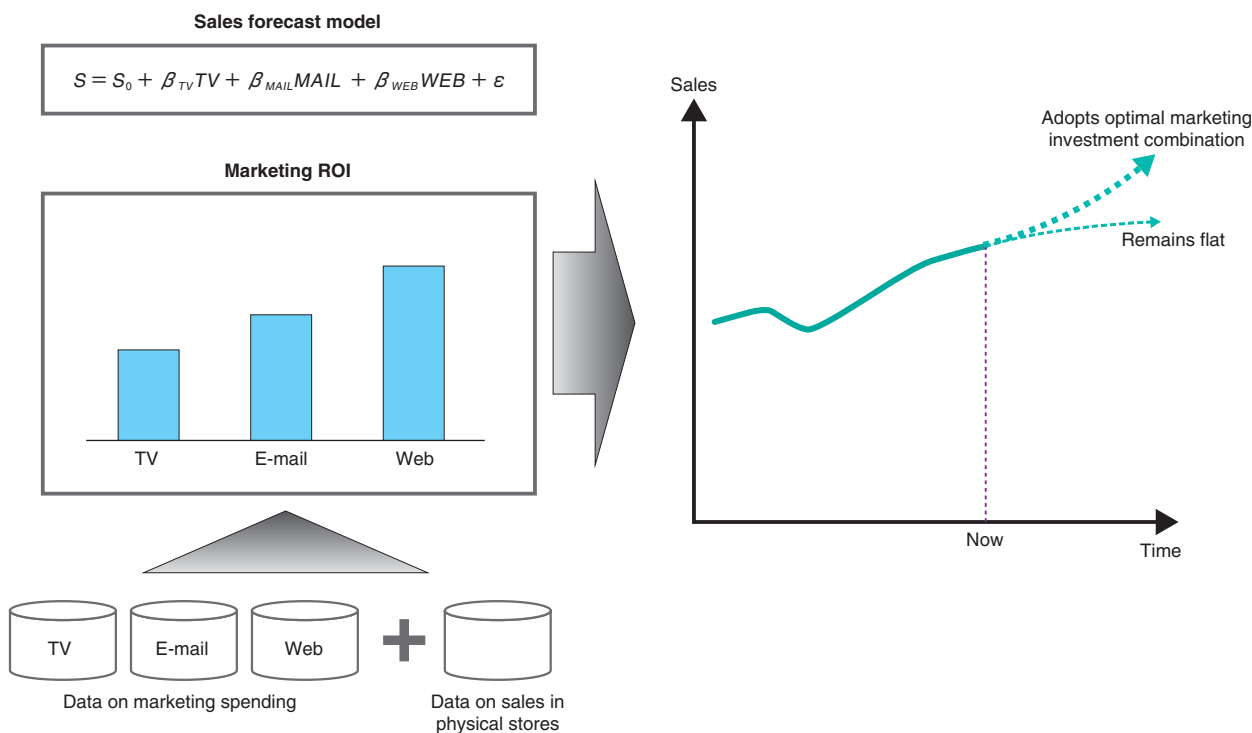
Because O2O marketing simply replaces the exit point (the final step of a shopping journey, i.e., picking up an item) of digital marketing with physical stores, O2O inherits all the various features of digital marketing on an as-is basis. This means that the sales of physical stores can be increased by using a variety of techniques that are advanced along with the evolution of digital marketing. Examples include evaluating measures based on the CVR metric (conversion rate, which refers to the proportion of visitors to a website who take action such as visiting a physical store or making a purchase), A/B testing (initially testing multiple measures on a small number of people, and then universally applying those for which the reaction was good) and retargeting (placing advertisements to encourage customers who have previously visited the store to visit again).

## 3  Analysis of channel-specific marketing effects

Companies that are already dealing with a full-fledged omni-channel strategy and implementing their marketing activities by organically linking all sales channels are faced with a need to devise a means of analyzing the effects.

Figure 5 shows that an analysis of the extent to which spending on marketing through multiple channels

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**Figure 5. Analysis of cross-channel marketing effects**



**Sales forecast model**

$$S = S_0 + \beta_{TV}TV + \beta_{MAIL}MAIL + \beta_{WEB}WEB + \varepsilon$$

**Marketing ROI**

TV    E-mail    Web

TV    E-mail    Web

Data on marketing spending

Data on sales in physical stores

Sales

Adopts optimal marketing investment combination

Remains flat

Now

Time

actually contributes to sales in physical stores. The analysis was performed by applying statistical methods such as time-series analysis to accumulated data such as spending on channel-specific marketing and sales in physical stores. The results of the analysis reveal the value of marketing ROI (return on investment), i.e., the degree by which store sales increase for a given increase in spending on marketing for individual channels as well as generate a sales forecast model capable of predicting overall sales.

Many vendors already offer solutions for analyzing the marketing effect across all channels. Based on the sales forecast model created through such analysis, companies can concentrate their marketing expenses on the channels that the forecast model indicates as generating the greatest return.

In fact, the France-based retail chain Carrefour used the above-mentioned analysis to find that the highest marketing ROI for the sales of PCs in physical stores was acquired through its web channels, and therefore, optimized its marketing investment by giving priority to the web channels.

## 4  Extracting a comprehensive customer profile from cross-channel data

In the past, companies mainly operated through physical channels. The customer behavioral data that companies were able to collect through such channels included in-store purchasing history and salesforce contact history. Naturally, these data represented only a small portion of the channels used by customers.

For such companies, the ability to create cross-channel data by combining customer behavioral data generated from digital media is significant. For example, even for customers with a low purchase frequency, for whom it was basically impossible to characterize their behavior, a comprehensive customer profile could be created by adding the features of their behavior within digital media, enabling companies to devise and implement effective marketing initiatives.

# IV  Trends in Digital Marketing Solutions

## 1  Data Management Platform (DMP)

The mechanism for clarifying the characteristics of a customer's behavior by integrating data from multiple channels is known as a data management platform (DMP), and is currently receiving considerable attention. The DMPs currently offered can be divided into those mainly used for optimal advertising delivery and private DMPs.

**(1) Public DMP**
By using anonymous online identifiers called "cookies," various media that a person accesses on the web can be recorded, such that it becomes possible to determine the particular characteristics of that person. Based on the characteristics of a given individual thus determined, this type of DMP is mainly used for targeted online advertising.

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A U.S.-based communications company has reported that the use of a public DMP to find the ideal target audiences of online advertising generated the effect of reducing the cost on the order of hundreds of millions of dollars.

### (2) Private DMP

A private DMP has a function of linking a person's web access history that is collected using the same mechanism as that of a public DMP with customer data held by a company. This data linkage is done by embedding a DMP cookie in the company's website. In this way, the private DMP enables the company to create a comprehensive profile of a customer by linking data from web channels with the company's physical channels. In Japan as well, companies, especially manufacturers that have had relatively little customer data in the past, have been showing increased willingness to adopt private DPMs. As cases of successful adoption, there have been reports of companies that analyzed the characteristics of visitors to the company's website and used the results to update their websites.

However, it is not easy to establish links with purchases made in physical stores. The reasons for such difficulty include: (1) because the company uses customers' accesses to its website to establish links, it can acquire data on only a small portion of its customers; and (2) companies such as manufacturers that are generally not positioned to have purchase data in physical stores are unable to integrate data for any given customer.

### (3) Omni-channel DMP

The term "omni-channel DMP" was coined by the authors and has not yet entered everyday use. In this paper, an omni-channel DMP refers to the one that assumes the role that a DMP was originally intended to play, that is, bringing together customer behavioral data from a wide variety of channels without being limited to the web.

Because the majority of existing DMPs use web cookies to integrate data, only a limited amount of data can actually be integrated. To overcome such limitation, there is a need for a means of integrating data without having to rely on web cookies. In addition, another issue with cookies is that their use seems likely to decrease in the future because the number of mobile devices that support cookies has been decreasing and because increased concerns over privacy have been leading to restrictions on their use. From these perspectives, there is a need for a methodology that does not rely on cookies.

Several proposals have been made as a means of solving these problems. These include: (1) a method of implementing "data extension" by using "single-source data" as represented by "NRI Insight Signal" (NRI's online marketing research service, which scientifically visualizes the effects of marketing strategy with the aim

of maximizing such effects), which was introduced in the second paper (NRI Papers No. 207) of the February 2015 issue of *Chiteki Shisan Souzou (Knowledge Creation and Integration)* and (2) a method of implementing "data fusion" whereby data from different sources is integrated while estimating a statistically "probable" value.

If a DMP that integrates data from all channels ranging from digital media to physical stores, that is, omni-channels, can be created by using these techniques, it would become possible for companies to implement optimal marketing initiatives based on much more precise customer profiles.

## 2　A variety of marketing solutions

In addition to DMPs, which were described in Section 1, various marketing solutions are being used including "cross-channel campaign management" and "marketing automation," which have been gaining popularity mainly in the U.S. Figure 6 shows the areas where these solutions are applied.

Cross-channel campaign management (CCCM) is a solution that can manage campaigns on a graphical screen. CCCM manages a campaign delivered across multiple channels in such a way that the web display is adjusted based on whether emails are opened or deleted. Japanese mail-order apparel retailer Peach John reported that the company was able to increase sales by approximately 10 billion yen by leveraging these solutions.

Marketing automation is a solution that aims to automatically assign and make marketing investments for individual channels based on an analysis using the sales forecast model, which was described in Chapter III.

Although the origins of these two solution groups were separate, they have taken on similar functions so that their target areas now overlap. As such, there is currently no point in clearly distinguishing them.

With respect to DMP solutions, public DMPs are primarily used for potential customers, traditional customer relationship management (CRM) systems promote sales aimed at existing customers, and private DMPs serve as a bridge between the two.

As shown in Figure 6, these days, the boundary between advertising and sales promotion has become vague. It is the emergence of digital marketing, which is the theme of this paper, that has led to such ambiguity. In the past, a common approach adopted for marketing consisted of using traditional CRM to promote sales aimed at existing customers that have customer IDs and using mass media to provide standardized advertisements aimed at potential customers. That is, in the past, there was a clear boundary between existing and potential customers.

However, with the advent of digital marketing, it has also become possible to identify individual potential

**Figure 6. Areas where various marketing solutions are applied**
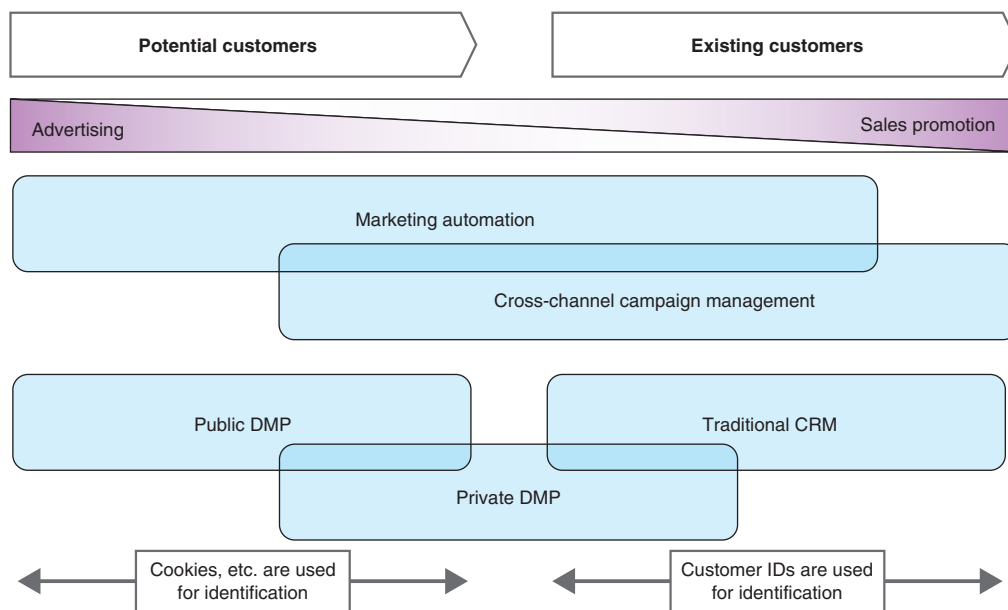


customers. The ability to identify each potential customer has enabled the adoption of a seamless marketing approach that combines potential and existing customers, as well as one that integrates advertising and sales promotion. In response to this trend, marketing solutions offered by many vendors are evolving in the direction of covering overall marketing activities.

# V Key Points in and Challenges Facing the Promotion of Digital Marketing

In conclusion, this chapter describes the key points in and challenges facing the promotion of digital marketing.

## 1 Key points in the promotion of digital marketing

Figure 7 shows the steps involved in promoting digital marketing, which was described in the preceding chapters, within a company. Digital marketing uses digital means to approach consumers, thereby enabling companies to store customer-specific information such as purchasing histories. What is important to effectively leverage digital marketing is to first establish key performance indicators (KPIs) for using the large amounts of accumulated data, and then apply the PDCA (plan – do – check – act) cycle based on the KPIs. The PDCA cycle for digital marketing involves the implementation and analysis of marketing initiatives created based on the KPIs and hypothesis verification.

To establish a management strategy, the first action is to decide on the "goals." When specific initiatives to achieve these goals are formulated, "indices" are determined to measure the performance of these specific initiatives, i.e., whether they have been implemented as originally intended. In recent years, these indices are called KPIs and are subject to increased emphasis. For marketing as well, it has become important to determine KPIs and monitor business processes to implement marketing initiatives, which are referred to as the "4Ps of marketing" – product, price, place and promotion.

Digital marketing differs from traditional marketing in that marketing campaigns can be run using various channels and methods, with their effectiveness and effects being determined in real time by analyzing the campaign results. Specifically, it is common to continually check the conversion rate (CVR), which was mentioned in Chapter III, whether a person viewed the relevant content, browsing frequency, time spent browsing, reaction to each item of content and other similar items. These indices can be established as KPIs for marketing activities.

After the KPIs are established, the marketing PDCA cycle must be run accordingly. The PDCA cycle for digital marketing repeats the processes of implementing daily initiatives and verifying their results in accordance with the KPIs that were established based on a strategy hypothesis. However, if the verification results largely change because of changes in the competitive environment or the market reaction, a new strategy hypothesis must be established and KPIs must be reviewed to reflect such changes. Based on the new strategy hypothesis and reviewed KPIs, the PDCA cycle for the next step is repeated.

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**Figure 7. Steps in promoting digital marketing**
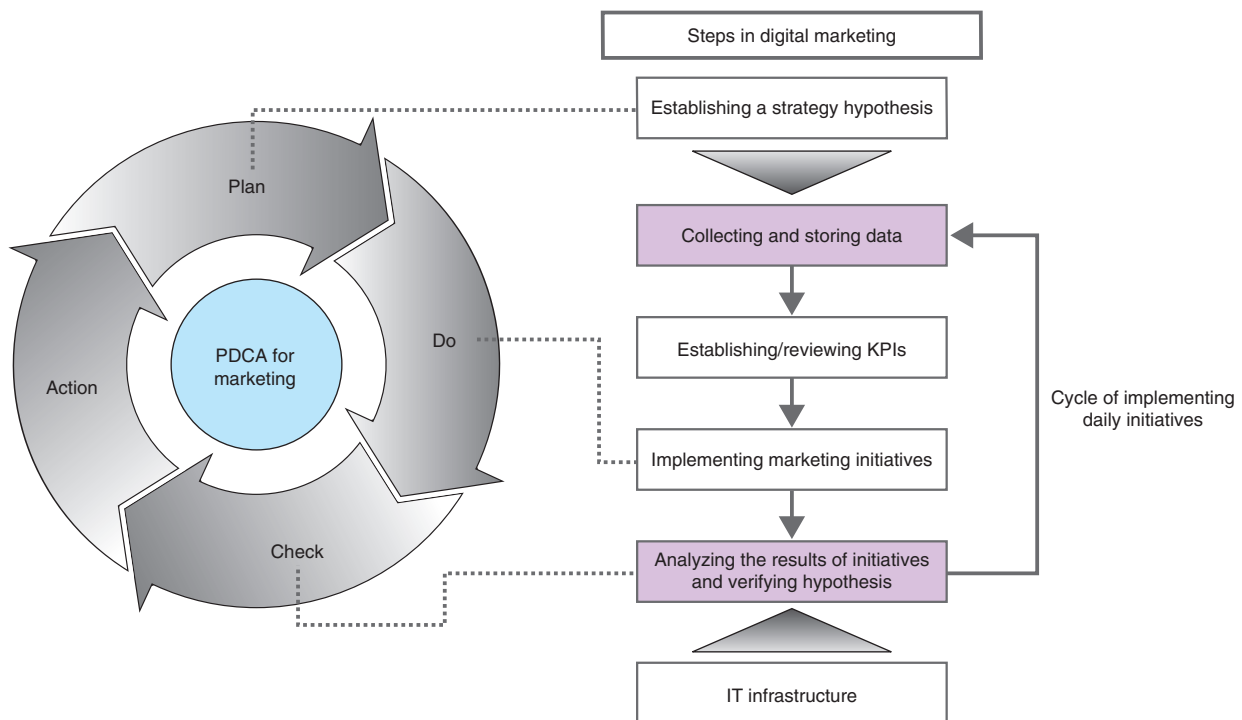


Note: Shaded boxes indicate steps for which IT has greater influence.

In repeating this cycle, the following two points are important.

**(1) Achieving greater agility**
To respond to changes in the market, the data that is collected and updated at high frequency must be quickly analyzed and the PDCA cycle must be run at high speed. In other words, greater agility must be achieved in repeating the PDCA cycle.

**(2) Positive attitude of companies towards "visualization" and applying the PDCA cycle**
Big data has triggered a kind of boom, and that boom has spread across almost all industries, leading to the growing needs of Japanese companies for the effective utilization of data. This trend has caused changes in the attitudes of companies that adopt a positive attitude towards attaining so-called "visualization" by establishing KPIs through the analysis of data as well as towards applying the PDCA cycle. Actually, the authors feel, first hand, such changes on the part of companies through our daily consultation activities and discussions with company executives. The authors expect to see many companies attain transformation in the future.

## 2 Challenges facing the promotion of digital marketing

To promote digital marketing, business processes that implement the steps indicated in Figure 7 must be established. At the same time, human resources responsible for such processes must be developed along with the necessary IT infrastructure. The human resources required for digital marketing include those who formulate a strategy hypothesis and those who create specific initiatives based on the strategy hypothesis and implement such initiatives. In addition, human resources who verify the results of the adopted initiatives and feed such results into the next PDCA cycle are also important.

With the advent of the big data era, not only is there a larger volume (volume) of data available for marketing, but the range of applicable data is also expanding, which results from changes in qualitative factors such as a greater variety of data (variety) and higher occurrence/update frequency (velocity). Along with advances in the information technology used to analyze such data, there is a need to develop analytical tools and infrastructure to cope with the growing amount and changing quality of data. Furthermore, in addition to the skills of individuals involved in data analysis, the organizational strength needed to take on the division of labor is also important.

Another challenge to be faced involves the methods of verifying effects by using the collected data. For example, with the spread of digital marketing, it has become easier to obtain indicators to measure marketing ROI. However, to enable side-by-side comparison of various media, a need has arisen to establish similar KPIs even for paid media such as TV commercials. This need has led to the development of suitable methods for verifying the effects. As such, improvements and developments are also ongoing in the area of verifying the effects of marketing initiatives. Therefore, the special issue of the

Digital Marketing Enters the Phase of Practical Implementation

February 2015 issue of *Chiteki Shisan Souzou (Knowledge Creation and Integration)*, which consists of four papers, focuses on the methodology of such effect verification [Note 3].

This paper, being the first of this special issue, is positioned as an introduction to the digital marketing landscape, which presents the recent trends and challenges related to digital marketing as well as the impact that digital marketing has on a company's marketing strategy. The second paper (NRI Papers No. 207) entitled "Treating Advertising as a Science – Scientific Analysis of Advertising Using Single Source Data," which was written by Junichi Shiozaki, uses original single-source data collected by Nomura Research Institute (NRI) as part of its Insight Signal service, and introduces NRI's support for advertising optimization by scientifically analyzing the effects of advertising ranging from mass advertising and traffic advertising to online advertising. The third paper entitled "Web marketing ni okeru koka sokutei no arikata (Suitable methods for measuring advertising effects in online marketing)" (only available in Japanese), written by Mitsunori Kajihara and Koki Ogawa, introduces companies that collect and utilize data through online marketing, and proposes suitable ways of measuring the effects of advertising based on an analysis of the original data (data collected as part of Insight Signal service). The fourth paper entitled "Marketing shien-kino no kyoka ga motomerareru contact center (Contact centers face the need for strengthening their marketing support function)" (only available in Japanese), written by Ko Kasai, introduces examples of advanced efforts related to making the best use of contact centers for marketing. Specifically, by sticking to traditional daily routines such as handling customer calls in accordance with guidelines and analyzing data collected through social media, contact centers have overlooked many customer voices, which constitute a gold mine of information. In the cases introduced in this paper, first-hand customer voices and qualitative data that are collected through contact centers are examined at a high level, and utilized for marketing after such qualitative data is quantified.

With the above-mentioned four papers, after outlining the current status of and reviewing the challenges facing digital marketing, this special issue attempts to comprehensively describe specific methods of and issues faced in establishing and analyzing various marketing initiatives such as mass advertising, online marketing and contact centers, as well as in measuring the effects of such initiatives.

Notes:
1    The sources include "https://netshop.impress.co.jp/node /842 (Jitsutenpo to EC no kakine wo nakusu! ryohin keikaku ga torikumu omni-channel jidai no digital marketing (Eliminating the barriers between brick and mortar stores and EC! Ryohin Keikaku's efforts for digital marketing in the omni-channel era)).
2    The source is "Bunseki ga unda hakken 50 (50 discoveries made through analysis)," December 2014 issue, Nikkei Information Strategy, Nikkei BP.
3    This paper was originally written as a lead article of the February 2015 issue of Chiteki Shisan Souzou (Knowledge Creation and Integration), featuring "New Evolution of Digital Marketing."

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