OMO Solutions that Provide a Unique Shopping Experience for Only Now, Only Here and Only Me

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Abstract

In the post-digital era where the progress of ICT has created an environment in which the offline contact points for consumers in real-world stores and their purchase behaviors are always connected to online, the worlds of online and offline are integrated and are considered as a single entity. This is the concept of Online Merges with Offline (OMO). OMO is considered a strategy and competitive mechanism in the e-commerce market. In the OMO era, it is necessary to connect a wide range of data with one another regardless of whether they are online or offline, and then visualize them in order to integrate them under a single control. This will result in having a faster experience cycle. This paper describes the reasons for and details about OMO that are attracting people's attention these days. Also, this paper discusses how related systems should be advanced in the OMO era and NEC's approach to solutions.

Keywords

OMO, omnichannel, post-digital, customer experience, OODA loop, NeoSarf/DM, NeoSarf/POS

1. Introduction

In the current Japanese market, the spread of digital technology brought about by smartphone and social media has made the connections among people closer. People are now exchanging information continually and taking action as necessary. This has resulted in changes and diversification in purchase behavior and has caused the change in the retail industry about rules of competition. As a result, the barrier between online and offline channels has disappeared, so various enterprises are presently working on omnichannel initiatives to reach out to customers by fully utilizing every kind of touchpoint, instead of relying on individual channels. However, it is expected that the post-digital era is coming soon, creating an environment in which even offline locations and environments such as real-world stores are permanently connected online¹⁾. While the online domain extends as an added value to the offline domain in the omnichannel era, all of the customer contacts in the post-digital era will be included in the online domain and the master-slave relationship between the online and offline channels will be reversed. The important factor for

winning in the post-digital era is the Online Merges with Offline (OMO) (**Fig. 1**).

In recent years, the name, OMO, is often spoken of as an idea to merge the online and offline channels as an integrated entity and as a strategy and mechanism for competing in the online market. This paper describes the background and key points behind the recent interest in OMO, the nature of systems required in the OMO era and NEC's approach to solutions.



Fig. 1 Omnichannel era and OMO era.

2. Background behind Attention to OMO

Rapid extension of the use of OMO as a keyword is backed by the three mega-trends of IoT, 5G and AI. The progress of digital transformation has triggered rapid growth of the BtoC e-commerce market in Japan to about 19.4 trillion yen in 2019 (7.65% growth from the previous year). Nevertheless the share of electronic commerce (EC) is still 6.76% with 93.24% of commerce still done through offline channels²⁾. Considering the existence of a huge amount of analog processes relying on non-digital intuitions and experience in people's lives, it is only a small part of the offline world that is digitalized.

However, when IoT advances in the future, digital transformation of physical assets will also advance, the ultralow latency of 5G will enable real-time processing and multiple simultaneous connections will enable us to connect everything around us to the online space. When IoT and 5G turn offline spaces into online, the online and offline merge into a borderless space so everywhere will become online. Additionally, with the development of AI, big data processing and automation are improving the speed and quality of data visualization, and the notion of OMO that emphasizes the need to think in terms of digital origins is gaining attention.

3. Purpose and Key Elements of OMO Era

Many enterprises including leading online ones outside Japan such as those from China, have been working on various approaches under the keyword, OMO. The Chinese OMO-type supermarket chain called Hema Fresh in the Alibaba Group integrates all purchases in a smartphone application, which makes use of data to display recommendations and coupons optimized for each individual customer and to provide an optimized assortment of products for each store as well as select the optimum location for each new store. Amazon in the United States also utilizes vast amounts of people's purchase, behavior and life-style data collected from offline contact points to offer recommendations optimized for each individual, with different prices and assortments of products.

Various other enterprises are taking various approaches, and what is common among them is that they are creating reasons to be chosen by consumers (i.e., creating new value) as a result of a thoroughgoing "consumer-centric perspective" based on a data-driven understanding of consumers. In this sense, OMO itself is a means or way of thinking, not an end as such. The values offered for consumers vary between enterprises just as the OMO strategy varies widely between companies. The real purpose or the essence of OMO is to merge the online and offline channels from a consumer-centric perspective, combine the "high efficiency, convenience and wide scope" of the online and the "experience, reliability and excitement" of the offline to transform businesses, and eventually to enhance the value generated by customer experience (CX). The CX in the OMO era can be improved by means of three important keywords; 1) centralization of information; 2) visualization; 3) speedup of the experience cycle (Fig. 2).

3.1 Integration of information

Present online channels acquire not only purchase



Fig. 2 Three keywords in OMO era.

data but also pre-purchase behavior data including what consumers visiting the store are interested in, what their concerns are, the kind of products they browse and what they put in their shopping baskets. When IoT, 5G and AI are developed further in the future, visualization of behavior data as well as the post-purchase life data will advance in the offline channels. This means that the scope of acquisition of data on individual customers is expected to expand immensely. In such a situation, the first step for OMO is to integrate both online and offline channel behavior, as well as purchase and lifestyle data by connecting them (**Fig. 3**).

3.2 Visualization

The next step is to visualize the conditions, interests, concerns of consumers and their level of contribution based on a thorough understanding of the consumer from integrated data. It is important to visualize "where consumers learn about our products and services, how they deepen their understanding of them, what triggers their purchase behavior, where they are from, where they stumble, in what situations they access us, and what they want" and, based on the data obtained, visualize how much the consumer contributes to the business of the company.

The level of contribution of consumers is usually measured solely on the basis of customer lifetime value (CLV) such as "purchases." However, in the current era in which the power of consumers has overwhelmingly increased, the level of contribution of consumers can no longer be measured exclusively by "purchases." The point here is to measure and visualize the contribution based on four consumer values including CLV as well as customer referral value (CRV), which indicates how consumers share info and refer newcomers, the customer influence value (CIV), which shows how well they leave



Fig. 3 Expanding scope of consumer visualization.

an impact on those around them, and customer knowledge value (CKV), indicating how a given customer's ideas on product development and co-creation are fed back to the company³.

3.3 Speed-up of experience cycle

The final step is to continue optimum communications at optimum timings by combining the online features of "high efficiency, convenience and wide scope" with the offline features of "experience, reliability and excitement." The needs of consumers are continually changing. What is critically important is to build a mechanism that "enables us to engage in dialogue with consumers and to always remain consumer-centric." This can be achieved by following changes in the needs and environments as well as repeating the OODA loop composed of listening to consumers' voices while observing the visualized data (Observe), judging the orientation based on data (Orient), making decisions (Decide), and taking actions (Action).

4. System Orientation Required in the OMO Era

The digital market is continuing to grow worldwide. It is getting more and more familiar to consumers thanks to the rapid spread of smartphones and gaining greater importance under the current COVID-19 situation. In the OMO era, where everything is always online, the online channels for EC and other purposes are experiencing a time of great change and will assume a role in advancing the offline channels by making use of the "high efficiency, convenience and wide scope" features of the online channels.

On the other hand, since what is important in the OMO era is to improve CX by providing consumers with "fun" and "excitement," offline channels, represented by real-world stores where people are in close contact with each other, also will become very important in the post COVID-19 era to come.

Accordingly, the systems in the OMO era need to have a mechanism that can seamlessly integrate channels, whether online or offline, by connecting data and holding continual communications with consumers by making use of optimum touchpoints at optimum timings based on the visualized form of data. Since the needs for service from consumers are continually changing, the systems need to continually evolve as well. In the fast-changing era of OMO, new devices and technologies, such as SNS and other services and smart devices, are constantly emerging, so it is also important to be able to link and expand with related services. Today's OMO Solutions that Provide a Unique Shopping Experience for Only Now, Only Here and Only Me



Fig. 4 Desirable shape of OMO era to come.

systems are therefore required to accelerate breakdown of functions into separate components and ensure high affinity with various services and new technologies. By using such a mechanism to offer "hospitality" to consumers based on any personal data available and create "excitement," ambassadors will be cultivated and your retail business can become one that is "chosen" by consumers (**Fig. 4**).

5. NeoSarf/DM, NeoSarf/POS

NEC's EC solution "NeoSarf/DM" and store solution "NeoSarf/POS" are both solutions for the OMO era, in which changes represent a 180-degree turnaround from conventional systems. In the current ultra-fast environmental changes in society, traditional systems are no match, so system platforms that anticipate changes and deal with them quickly and flexibly whenever they occur are necessary. Both NeoSarf/DM and NeoSarf/POS are component based systems featuring loosely coupled functions. Connecting these mechanisms enables flexible, quick addition and replacement of functions and linkage with other systems and services, so speedy and original business transformation to meet consumer behavior changes and technical innovations are possible.

6. Conclusion

In the OMO era, where consumers' purchase behavior and competitive principles of retailing are changing drastically, the retail industry is also required to continue perpetual change with consumers and improve CX by making use of the features of both online and offline systems. NEC will continue development of the retail industry by enhancing and advancing OMO solutions based on our business knowhow and key technologies backed by longstanding achievements in ICT in both real-world and network domains.

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