

# Realization of Financial Ubiquitous Services with ChannelNavigator® 2.0

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The financial market of Japan is being subjected to a diverse range of financial products and services, created one after another in the financial market of Japan, which is due to extended deregulations, progress in financial technologies and participation by foreign capital businesses, resulting in the globalization of competition. On the other hand, due to this vast diversification the customers of financial institutions experience difficulties when they try to determine which product or service is most suitable out of all the financial products and services available.

OKI is engaged in the development of products, intended to realize "Financial Ubiquitous Services," which are available at the "right time," "any time," "anywhere" and "securely." One such development effort pertains to the planning and development of a product, which is intended to resolve the issue that customers are facing, that is "selecting financial products and services is difficult."

This paper presents aspects that need to be considered when action relating to the aforementioned issue is undertaken within the scope of the product sales in the area of financial retail services, as well as a specific solution proposed by OKI.

## Issues of financial retail services

### (1) Financial reforms and intensifying complexity of retail services

Financial reforms in Japan started in 1996, with a Japanese version of a financial big bang (free, fair and global), which triggered the mutual entry of financial institutions, such as banks, security houses and insurance companies, into other financial fields, the deregulation of transaction fees and full-scale entry of foreign capital financial institutions into the Japanese market. The ban on investment sales over the counter was removed, as well as the sale of insurance and various other deregulations that resulted in the expansion of the business domains of financial institutions.

These deregulations triggered fierce competition between financial institutions and businesses of other industries, resulting in the creation of a diverse range of financial products, including new services using IT.

In the home economic front, the tendency of "switching from savings to investments" took off, driven by the national government when the retained ratio for cash deposits was reduced and, year after year the retained ratio for investment products increased, indicating an extension in the range of financial products available to customers (Fig. 1).

A look at the transitional balance of net assets for investment trusts (contract-type publicly offered investment trusts) in recent years shows prominent growth in balances starting from 2005, indicating that the needs for investment financial products have been

increasing (Fig. 2).

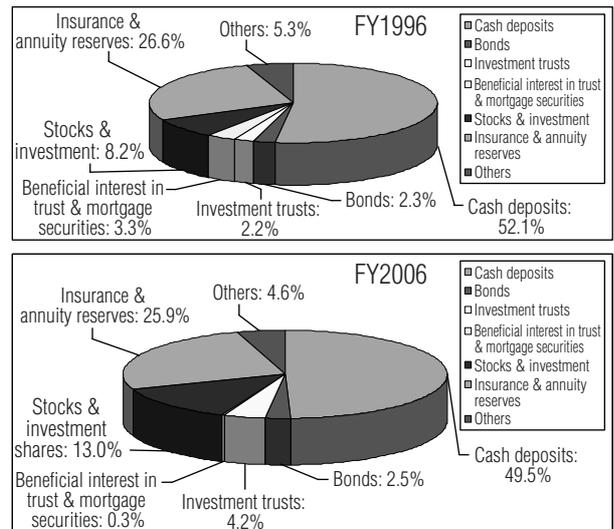


Fig. 1 Composition of personal financial assets (%) [Data source: Flow of Funds, prepared by Bank of Japan]

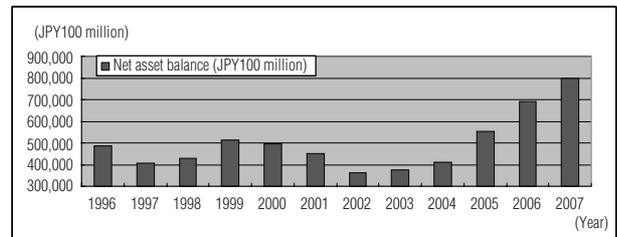


Fig. 2 Investment trust net asset balance (Data source: Financial Management Status of Contract-type Publicly Offered Investment Trusts, prepared by The Investment Trusts Association)

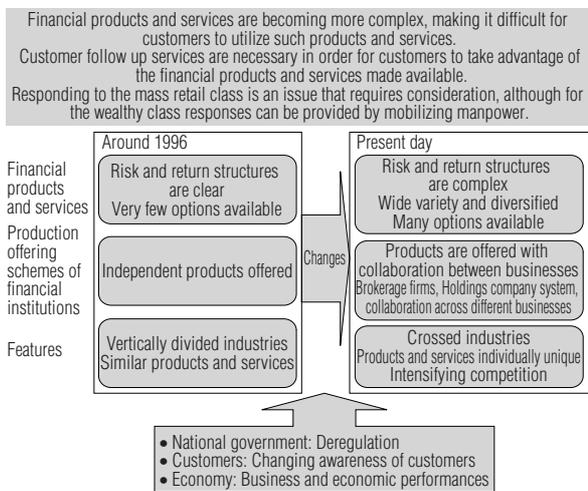
The current situation denotes an increase in the number of products available and new services introduced, while customers with an adequate amount of assets, who have ample investment experience and possess financial knowledge, experience a significant number of benefits, such as the creation of portfolios with distributed risks (multiple currency diversifications) or sophisticated fund procurements (reserve mortgages), as well as risk return plans suitable for investment objectives. However, customers who have different management intentions from those who seek targeted returns by trading financial products in units of days and hours, or customers who are busy with their daily work or child care and do not have an adequate understanding of

financial products, may not be benefiting as much from the current situation as the aforementioned investors, since financial products are complex and investing opportunities are missed.

Financial institutions are competing to retain customers who have large financial assets and ample experience in investing, the so called wealthy class, so that they will remain with their financial company or bank. Since customers of the wealthy class bring in a significant quantity of deposits and revenue through fees, financial institutions typically assign an individual account manager to provide detailed services to these people, even when such customers do not have much investment experience.

Financial institutions continue to offer red carpet services to the wealthy class, while their interest is rising in the mass retail class of customers. The mass retail class comprises the majority of customers and it is a class for categorizing customers in the wealthy class, according to the definitions of individual financial institutions. The absolute number in the mass retail class is enormous and comprised of people pursuing a wide variety of lifestyles, but to be able to offer them the sort of red carpet services provided to the wealthy class would be difficult in terms of costs. Many customers are candidates for becoming the blue chip customers of the future, with a potential for generating revenue for financial institutions.

An issue pertaining to the success of retail businesses for financial institutions is to gain an understanding of the needs of the customers in the mass retail class, in order to propose products and services that can fill such needs and win prospective blue chip customers before other companies or banks (Fig. 3).



**Fig. 3 Changing environment surrounding financial products and services**

In the past, financial institutions divided the mass retail class into segments based on the attributes of the customers, such as their annual income, age or occupation (classification or grouping). Sales promotions for financial products were conducted through direct means, such as direct mail, to segments that were considered to be promising for making sales. Attempts were made to untap the potential needs for home loans and asset management following retirement. However, designating them in a simple undifferentiated manner into segments established merely by dividing the retail class is becoming an ineffective means to offer financial

products that financial institutions hope to sell, due to the diversifying lifestyles of customers and diversification of financial products.

The selection of products and services optimally suited to the status of individuals and recommended to customers<sup>\*1)</sup> is a method being adopted as part of the marketing activities for such a mass retail class through an increased number of financial institutions throughout Europe and the United States.

**Recommendations and relevant issues**

**(1) Benefits of recommendations**

The method known as recommendation for customers gives them an advantage so they do not need to be aware of their individual status, while the products and services can be recognized without the need for any depth of knowledge pertaining to financial products and services. The customers who have ample investment experience or a deep knowledge on the subject matter may be able to make their own selections from among similar financial products and services. For the vast majority of retail customers, however, recommendations are a useful support for helping them select their products. Furthermore, recommendations are an effective means for financial institutions to increase their sales opportunities for products and services, as well as to untap potential blue chip customers. For example, when customers who do not have a lot of financial assets or any investment capacity suddenly acquire an investment capacity in some way, it is possible to make proposals to match the needs of such customers, which in turn raises the potential for successful sales through the quick detection of such changes and by immediately presenting optimally suited offers.

Such a recommendation method is beneficial to both the customers and the financial institutions but two issues must be resolved in order for such a method to be implemented for substantial operations:

<Issues for recommendations>

- The relevant laws and regulations, as well as the voluntary regulations of industry organizations, must be observed.
- The customer information necessary for offering recommendations needs to be collected.

**(2) Issue 1: The relevant laws and regulations, as well as the voluntary regulations of industry organizations, must be observed.**

Similar to other approaches made to customers and from the perspective of protection for investors for recommendations provided by financial institutions, the observance of laws and regulations is a requirement, as well as the voluntary regulations of the Japan Securities Dealers' Association, such as the Financial Instruments and Exchange Law, which has been in full enforcement since September 2007, [Financial Instruments and Exchange Law: <http://law.e-gov.go.jp/htmlldata/S23/S23HO025.html> (as of July 30, 2008); Japan Securities Dealers Association voluntary regulations: <http://www.jsda.or.jp/html/kisoku/index.html#aa> (as of July 30, 2008)].

The Financial Instruments and Exchange Law includes regulations on advertising, as well as regulations on activities, such as obligations relating to honesty and fairness, obligations relating to the exchange of documents, prohibition on false information, prohibition on the provision of assertive decisions, prohibition on uninvited solicitation, prohibition on offering

\*1) A recommendation is a method used to propose or recommend products and services that are timely and suitable for a customer.

compensation for losses and a suitability rule, as well as others. The system that makes recommendations needs to have a database, a Customer Relationship Management (CRM) database that stores the so called "Customer Card" data, including a status of the agreement by the customer on the recommended products or the degree of risk tolerance, as well as the data used to speculate on the life events of customers, which become the points of origin for their financial product needs. A function for verifying such data is necessary to ensure that the laws and regulations are being observed before any introductions are made to the products, which are selected for individual customers and presented to them, or before investment opportunity presentation meetings are held.

**(3) Issue 2: The customer information necessary for offering recommendations needs to be collected.**

In the past a CRM database was used for making recommendations to customers, using the type of static information that was available, such as age, occupation and end of month balances, however this is no longer sufficient. In order to detect changes in a customer or the materialization of the need for financial products, it is necessary to gain an understanding of their "current" situation by monitoring the status on their access to financial information, their activation and increases to the amount of fund transfers, as well as the various contacts the financial institution has had with the customer, such as negotiation and consultation records held by tellers at branch offices, contact through the internet and by call centers, rather than relying merely on static information alone.

**New CRM solution from OKI:  
"ChannelNavigator<sup>TM</sup> 2.0"**  
Abides by laws and regulations as well as collects activity records through multiple channels to achieve highly accurate recommendations

The CRM software for financial institutions, ChannelNavigator 1.0 (hereinafter referred to as the "CN1.0") was provided by OKI primarily for bank ATM

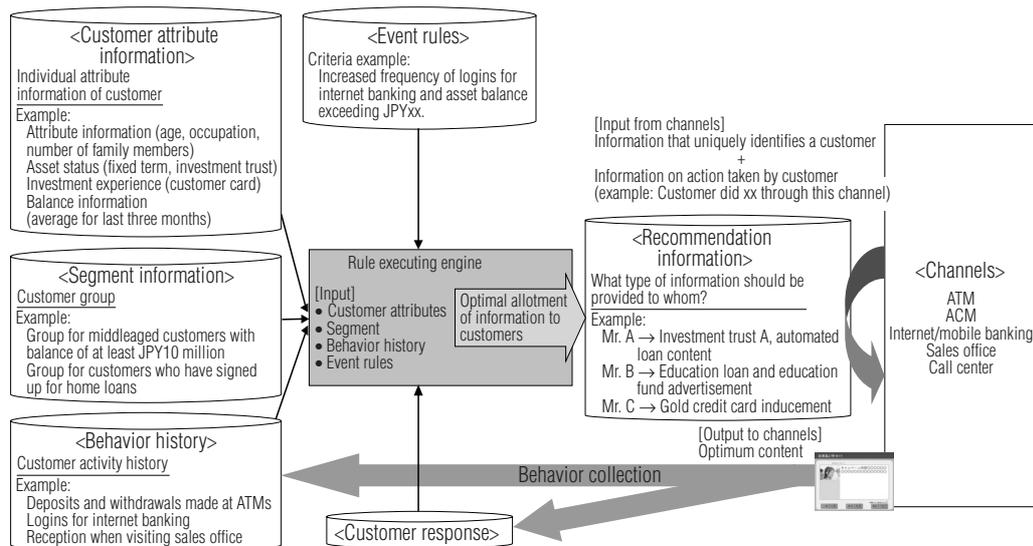
channels. The CN1.0 was intended to provide specific types of information to segmented customer groups and was indeed able to provide information intended by financial institutions immediately and on the spot to customers, as they used terminals at the channels of financial institutions. Two issues that were previously unresolved have been explained in this paper. Consequently OKI resolved these two issues with ChannelNavigator 2.0 (hereinafter referred to as the "CN2.0"), which is currently under development and incorporates a highly accurate recommendation function that takes into account the diversity of each individual customer as well as a multiple channel supporting function. CN2.0 is a new CRM product based on the financial ubiquitous service concept for providing an environment, wherein the necessary information pertaining to products and services is delivered to mass retail customers at the required time, while financial products and services are made available to customers any time and anywhere.

**(1) Customer status analyzed with PAA engine and various regulations observed**

The CN2.0 incorporates a Personal Activity Analysis Engine (hereinafter referred to as the "PAAE"), which collects attribute information pertaining to customers (personal master) and activity history information (behavior), it gathers and stores the information from a broad range of sources, before it is analyzed according to the arbitrary rules (criteria groups) of the financial institution.

The preparation of these rules is released to the operator of the CN2.0, and the operator at the financial institution is then able to incorporate arbitrary algorithms as rules to the CN2.0. Additions and changes to these rules can be made at any time and modifications or retesting of the CN2.0 software is unnecessary (Fig. 4).

A determination on the status of a targeted customer, to determine whether or not it is an appropriate time to offer any recommendations, is possible using the PAAE.



**Fig. 4 PAAE operation image**

\*2) ChannelNavigator is a registered trademark of Oki Electric Industry Co., Ltd.

<Examples of the rules for selecting targeted customers to recommend products>

- A customer with an investment capacity of at least JPYxx and a relevant risk tolerance level that has stabilized in comparison with the individual variable annuity insurance product yy, as per the risk investigation survey conducted within the immediate three month period and who selected "Yes" to an offer for a targeted product: A signal indicating a desire for a targeted product.
- A customer two years after signing a three year fixed interest home loan, periodically browses the latest interest rates on web pages, according to the viewing history: A signal for upgrading or the conversion of a home loan.

\* Above rules are examples of our hypotheses.

## (2) Collecting activity information of customers from various channels

The CN2.0 offers a function that detects any customer activity through a channel, which is considered to be a "behavior," before accumulating it on a database. A behavior is an activity conducted by a customer, such as those described below:

<Behavior examples>

- Depositing funds
- Withdrawing funds
- Logging in for net banking
- Referencing product information
- Inquiring about products

Account transactions, such as "depositing funds" and "withdrawing funds," are recorded and stored in the transaction history, which is part of the accounting system. The use of such information, once it is recorded on a CRM database in real-time and an analysis is made of the activity history information as soon as a transaction occurs, is difficult since the accounting system and the CRM system are separate systems.

However, "logging in for net banking" or "referencing product information," as well as contacting a call center to make an inquiry, are all events of the customer activity history that are not included in the transactions of the accounting system and therefore, they are often distributed to each individual channel through which such events occur. The integration of such information on the CRM database is difficult, since each channel system has proprietary specifications due to the increasing number of vendors manufacturing these systems.

CN2.0 is certainly able to collect a broad range of activity history information from OKI channel equipment but it is also possible from the channel equipment of other manufacturers, in other words from the equipment of multiple vendors and from multiple channels, which is made possible through a standardized protocol for communications between channel equipment, the CN server, as well as the format of the data.

## (3) Summary

- Different deregulations and the intensification of the competition resulted in the diversification of financial products and the creation of new services.
- Expanded range of products brought benefits to some semi-professional traders and individuals of the wealthy class, who were able to receive preferential treatment by financial institutions. For those in the mass retail class, however, selecting products became a difficult task.
- In order for financial institutions to generate more

revenue in the retail business, it is not sufficient for them to just cater to some semi-professional traders and individuals of the wealthy class but it is essential for them to consider the mass retail class. Although people of the mass retail class require care, just as those in the wealthy class, it is a difficult issue since they are many in number and diversified too, so providing the sort of care given to the members of the wealthy class is not possible, with an insufficient contribution towards the revenue generated.

- In order to implement a method of recommendation, which is an effective means for assisting the mass retail class, an extensive number of diversified people, the following two issues need to be resolved:
  - Relevant laws and regulations must be observed.
  - Customer information needs to be collected.
- OKI's new product, ChannelNavigator2.0, which incorporates a highly accurate recommendation function, resolves these issues.

## Conclusion

OKI has provided descriptions indicating that the product, known as CN2.0, is useful for the purpose of offering recommendations for financial products and services, as well as abiding by the laws and regulations or restrictions of systems that become issues for providing recommendations.

The extended meaning of teleworking, which is the theme of this issue, is about "performing work in a flexible manner without the restrictions of time or location by utilizing information and communication equipment."

Asset management is important "work" for customers and having the necessary products and services introduced and made available at any time and anywhere (teleworking), is a very important thing for the success in life of the customers.

It is hoped that recommendations provided by CN2.0 will become one of the means for customers to "flexibly implement their work (things to be done) in a flexible manner" to manage their assets.

In the future, we intend to make progress in the research of useful and practical tools for financial institutions and improve the CN2.0 to meet the needs of financial institutions as well as the needs of customers.

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