Featured Articles II

Proposal to Financial Institutions for New Contract Customer Acquisition Support Using Human Networks

—Technology for Identifying and Visualizing Introducer Models—

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OVERVIEW: Finding customers who generate new value is an important factor in increasing revenue at companies. In the case of outcall sales in particular, how sales representatives acquire new prospective customers has a direct bearing on their performance. Unfortunately, the know-how required to acquire prospective customers is an intuitive skill that is learned by sales representatives through experience and, in many cases, it is not part of the institutional knowledge of the company. In response, Hitachi has developed a customer acquisition support service for identifying introducer models (key people), and for visualizing the human relationships between customers in the form of a network. Along with an AI technology that generates a list of existing customers who have a high likelihood of providing leads on new prospective customers, this article proposes applying this service to support sales, starting with financial institutions.

INTRODUCTION

HOW to find and acquire customers who generate new value is an important factor in increasing revenue at companies. In the case of outcall sales at financial institutions in particular, how to acquire potential customers that lead to new contracts has a direct bearing on the performance of sales representatives. Unfortunately, to acquire prospective customers in an efficient manner is, in many cases, an intuitive skill that is learned by sales representatives through experience, and is not part of the institutional knowledge of the company[1].

The customer acquisition support service described in this article is based on a business style called "referral sales"[2, 3] whereby new sales leads are acquired from existing customers in such a way that the company's institutional knowledge is utilized for efficiently identifying customers can be expected to lead to new contracts. Specifically, the relationships between customers are first visualized in the form of a human network and an introducer model is developed by identifying the types of customers that will become key people with a high likelihood of providing leads on prospective customers. Next, a list of existing customers who have a high likelihood of providing leads on new prospective customers is generated according to this introducer model. Hitachi is currently developing a sales-support-oriented artificial intelligence (AI) technology for efficiently building human networks and identifying introducer models.

The rest of this article proposes applications that utilize this technology for sales support, starting with financial institutions. Furthermore, testing has been undertaken to verify the feasibility of the ideas presented in this article, and the results of this testing are also presented here.

CURRENT SITUATION AND CHALLENGES FOR SALES ACTIVITIES WHEN ACQUIRING NEW CUSTOMERS

While acquiring new customers to increase revenue is one of the concerns faced by financial institutions, the environment of stricter compliance in recent years, personal information protection systems, and rising awareness mean it is no longer easy for outcall sales representatives to use cold calling as a way to acquire new customers. In the case of outcall sales of life insurance, in particular, while it is understood that many companies have in the past chosen to rely on the individual experience and know-how of outcall sales representatives to acquire new customers[4], for the reasons described above, they are now finding

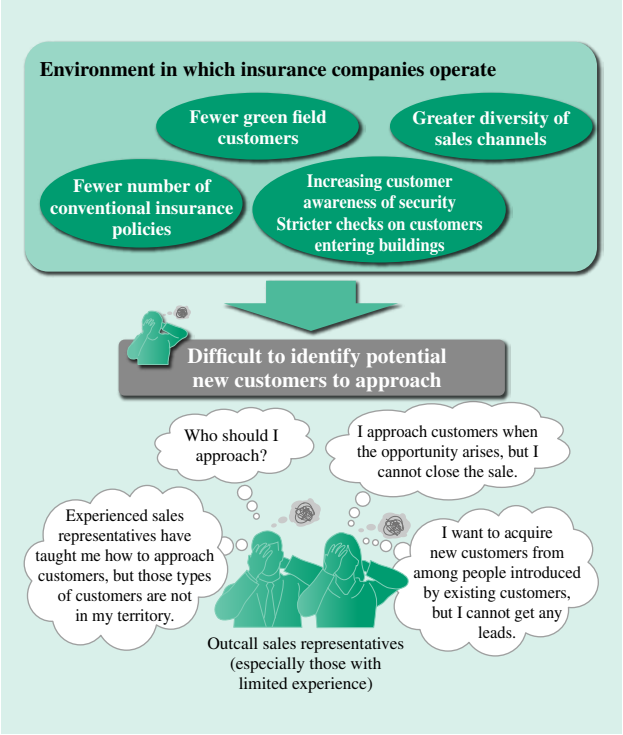

Fig. 1—Current Situation and Challenges for New Customer Acquisition by Insurance Companies.
The figure enumerates the current situation concerning the sales systems at major insurance companies and the main challenges they face in acquiring new customers.

it difficult to acquire customers that lead to new contracts. New sales representatives, in particular, who lack sales experience, are finding themselves at a loss in terms of knowing how to acquire new customers (see Fig. 1).

Moreover, it is difficult to raise the level of overall sales performance as an insurance company by simply relying on experienced sales representatives to build up sales know-how over time in the form of personal knowledge. What are needed are organizational practices for passing on the know-how of experienced sales representatives in order to improve performance across the company.

This article proposes a support service for new contract customer acquisition that can be used by outcall sales representatives in their work and that functions by focusing on customers with a high likelihood of providing leads on new customers, thereby providing a means to utilize the institutional knowledge of the company to acquire customers in an efficient manner. The aim for the future is to establish the service at financial institutions, including the development of AI technology for sales support that will enable the service to be implemented efficiently.

USING HUMAN NETWORKS TO SUPPORT CUSTOMER ACQUISITION

Overview of New Contract Customer Acquisition Support Service

To acquire new customers, the service uses a business practice called “referral sales” whereby new customer leads are acquired from existing customers. To achieve this, the relationships between customers are visualized in the form of a human network and this is used as the basis for building an introducer model by identifying the types of customers that will become key people with a high likelihood of providing leads. A service is provided that generates a list of the existing customers of each sales office who are similar to the introducer model so that those customers can be approached with a high likelihood of providing leads (see Fig. 2).

Visualizing Human Networks and Building Introducer Models

Under the hypothesis that some set of characteristics in existing customers indicates which of them can become sources of leads on new customers, and that this is derivable from the nature of past relationships between existing customers, the first step is to build a network that reflects these relationships. In the resulting human network, the nodes represent customers and the edges between the nodes represent the relationships between customers. How the nodes are connected (in other words, which customers have distinctive relationships with other customers), can be identified from the following two perspectives.

(1) From the perspective of the continuity of customer leads

Among the customers, there are those who have had their concerns about insurance resolved by sales representatives and who go on to provide leads on other customers with similar concerns. This perspective focuses on the types of customers who form chains such that, when a sales representative visits a customer who was introduced in this way and the customer is receptive to the sales pitch, that customer provides a lead on another potential customer.

(2) From the perspective of the diversity of customer relationships

This perspective focuses on those customers who provide leads on a large number of other customers and who have a wide variety of relationships with other people, including relatives, friends, and neighbors. This is based on the idea of small-world networks[5] in which connections with the sort of

people being targeted can be achieved more quickly via nodes (customers) that facilitate the propagation of information over a wide area. Accordingly, the focus is on the types of existing customers who have a wide variety of relationships.

Based on these perspectives, the service identifies customers who fit these profiles as "key people." Next, focusing on the attributes of the key people that were identified, an introducer model is built based on customers with a high likelihood of providing leads by grouping together other key people who share the same attributes (see Fig. 2).

Listing Customers with a High Likelihood of Providing Leads

Among the existing customers of each sales office, a list is generated of customers who have attributes that closely fit the introducer model described above. The sales manager then selects the customers that should be approached from this list of customers and issues instructions to the outcall sales representatives.

Sales activities with respect to the selected customers are actually carried out and the results (whether they provided any new leads) are used as feedback to update the human network. This enables the introducer model of customers with a high likelihood of providing leads to be refined so that support for new contract customer acquisition can be delivered with greater precision.

Development of a New Contract Customer Acquisition Support Tool

Hitachi is developing a customer acquisition support tool to provide efficient support for new contract customer acquisition. The tool includes a function that builds a human network from the relationships between a large number of customers, uses this to build an introducer model from the perspectives of the continuity of customer leads and the diversity of the relationships, and then lists the customers who are similar to the introducer model. Fig. 3 shows example screens from this tool.

Verification Testing of Customer Lists

Verification testing was conducted at an insurance company to determine whether the customer lists generated by this method really can identify customers who provide a large number of leads. When the mean number of new customer leads (1.6 people) provided by approximately 5,000 customers who had previously provided leads was compared with the mean number of leads provided by customers on the tool-generated list (2.3 people), the results showed that the mean number of leads was approximately 1.4-fold among

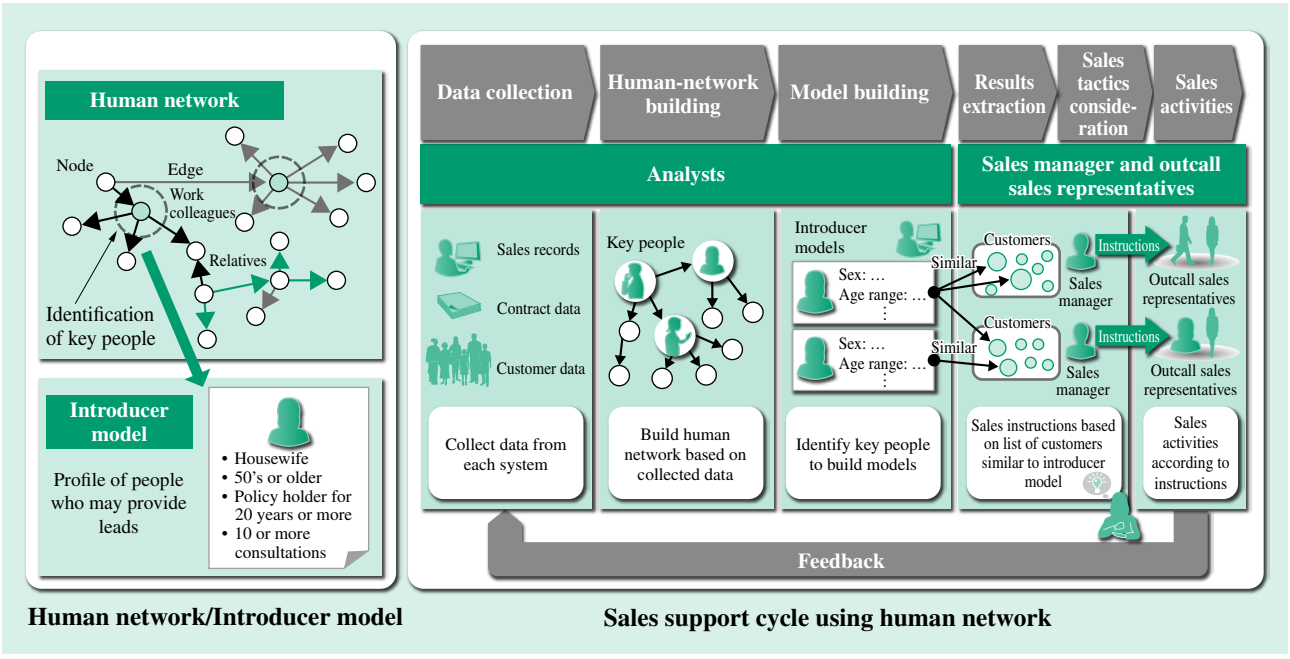

Fig. 2—Overview of Customer Acquisition Support Using a Human Network.
Outcall sales representatives use human networks in their work by representing the relationships between existing customers as a network and identifying introducer models with a high likelihood of providing leads, then using this as a basis for generating a list of the customers managed by each sales office that have a high likelihood of providing leads.

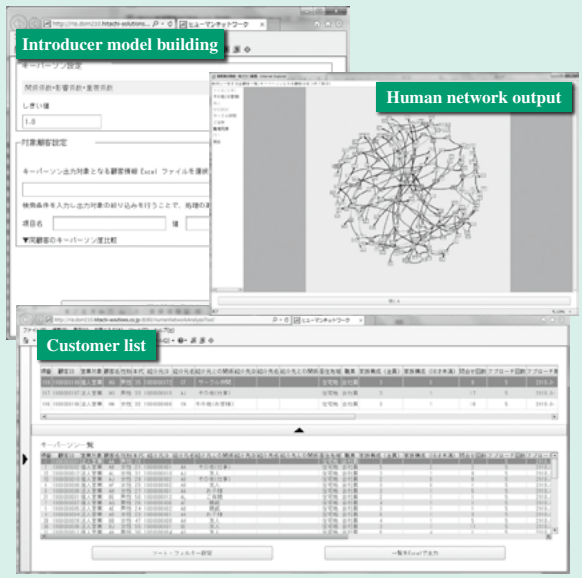

Fig. 3—Example Screenshots from the Customer Acquisition Support Tool.
The customer acquisition support tool is used to list customers with a high likelihood of providing leads by creating a human network from information about existing customers and building introducer models.

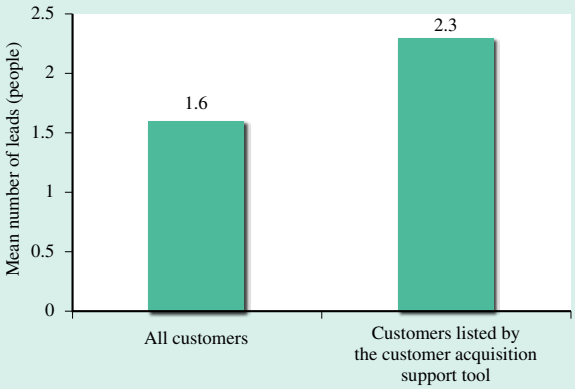

Fig. 4—Comparison of Mean Number of Customer Leads.
A comparison of the set of all customers who provided leads and the mean number of leads among customers on the list showed that the mean number of leads for customers on the list was approximately 1.4 times as much.

the customers on the list (see Fig. 4). This test result indicates that this method can be used to produce a list of customers with a high likelihood of providing leads. It is necessary to verify whether having outcall sales representatives approach customers who are listed as similar will actually result in these customers providing new leads in the case when they may not have provided many leads in the past, but match the introducer model. In the future, Hitachi intends to follow up on the results of such verification to confirm the viability of this method.

APPLICATIONS AND SERVICE FORMAT

Potential Applications

While it is anticipated that the service will initially be used to support outcall sales representatives at insurance companies and other financial institutions with new contract customer acquisition, the following applications are also anticipated for consumer and business sales in other business fields that use "referral sales" as a business model.

(1) Door-to-door sales of vehicles and cosmetics

The business practice of "referral sales" also is being used to increase sales in the case of door-to-door sales to meet customer needs, such as vehicle sales and cosmetic sales. Scope exists for such applications because it is thought that having a way to focus sales attention on existing customers with a high likelihood of providing leads will help increase sales.

(2) Door-to-door sales of real estate

Sales practices that use relationships between customers as a starting point are also used in the sale of residential and other real estate. In other words, if people can trust each other, then they can become new prospective customers if they are in a position to be introduced by a customer. Accordingly, this represents another potential use for the service.

(3) Outcall sales for companies

By extending the definition of nodes in a human network to include organizations as well as individuals, a model of the types of companies that are worth approaching can be developed by considering the relationships between companies. There is scope for banks to use this to identify potential customers for loans, for example, by generating a list of companies that fit the model and using it to select targets for outcall sales.

Service Format that Hitachi Provides

Fig. 5 shows the format of the new contract customer acquisition support service as it is actually provided by Hitachi. For the human-network analysis system, client-specific models are developed by using general-purpose introducer models that Hitachi has built-up over time as a base and customizing them to suit individual customers. It is anticipated that this will involve information delivery services such as the

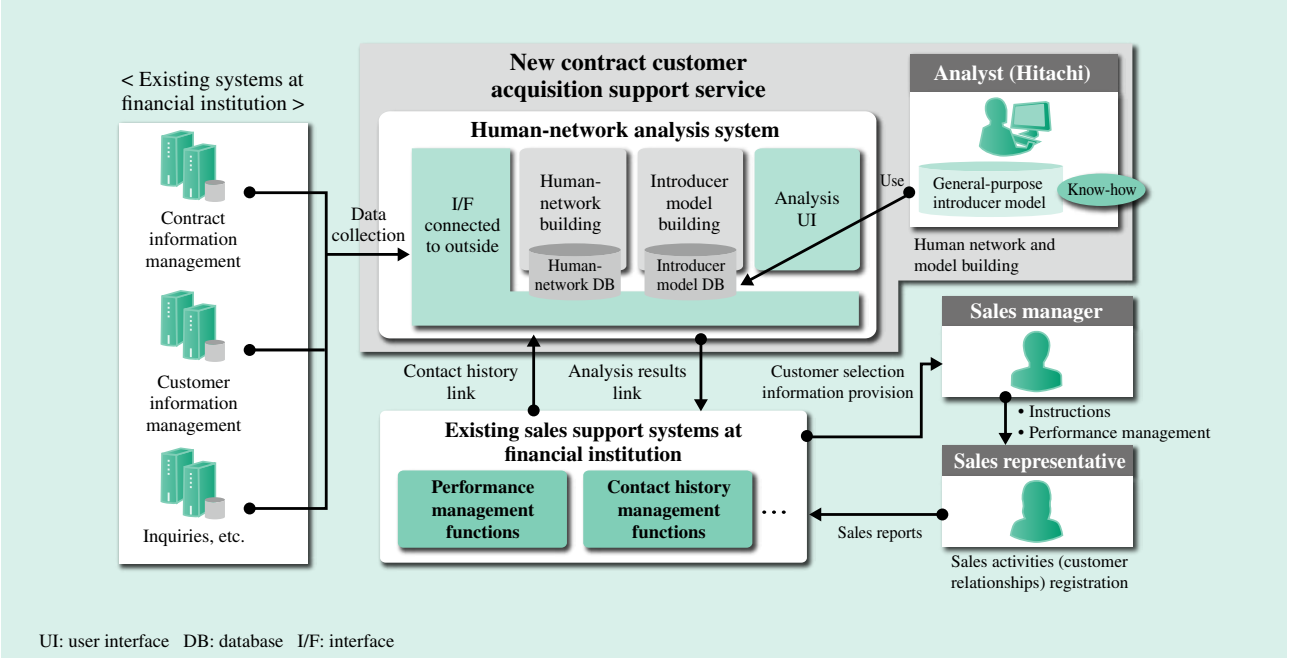

Fig. 5—Format of New Contract Customer Acquisition Support Service Provided by Hitachi.
Hitachi provides an information service that uses the introducer models it has built up over time in the form of a customer acquisition support service that uses a human-network analysis system.

generation of lists of target customers by linking the human-network analysis system with existing systems at financial institutions.

Along with specific companies, the support service for new contract customer acquisition can also be deployed horizontally across different business categories if companies deliver similar services. The applicable scope of the service can also be expanded by building up a portfolio of introducer models.

CONCLUSIONS

This article has described a support service for new contract customer acquisition that uses AI technology for sales support to enable outcall sales representatives to efficiently identify prospective customers for insurance policies or other products using the business practice of "referral sales."

Hitachi proposes that the know-how in new contract customer acquisition, which in the past has been an intuitive skill that was learned by sales representatives through their own experience, can be one means of making effective use of a company's institutional knowledge. The initial intention is to use it as a way of supporting door-to-door outcall sales by insurance companies, and subsequently to deploy it horizontally with the aim of applying it at financial institutions.

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