A personalised needs oriented approach to financial product sales

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Introduction

This paper presents a new approach to financial product composition and sales that has the potential to reduce the cost of sales while also improving the quality of customer service by ensuring that individual customer needs are reflected in the products offered. The approach is suitable for all but the most individually underwritten classes of business, and therefore includes all personal lines (life and non-life) as well as many commercial lines products that are suitable for a 'packaged' approach to sales and marketing.

Whilst the paper's focus is on the use of technology, this should not be taken to mean that the approach is only suitable for direct sales to customers via the internet. The system described here can equally be used by a company's own sales force or call centre agents, or by representatives, agents or brokers, as well as potentially by direct customers seeking offers via the Web. The technology can be deployed within a company's system and its intranet, among a closed group of partners (an extranet) or publicly across the World Wide Web.

Today, most insurers expect a customer, be it the prospective insured or a broker or sales representative interacting on his or her behalf, to request a quotation by selecting a product configuration (coverage, deductible etc.) and providing all the parameters needed to drive the quotation engine. Many insurers have developed interactive systems to obtain this information, and some have used web technology to allow customers to interact with quotation engines directly over the internet, as illustrated in figure 1 below.

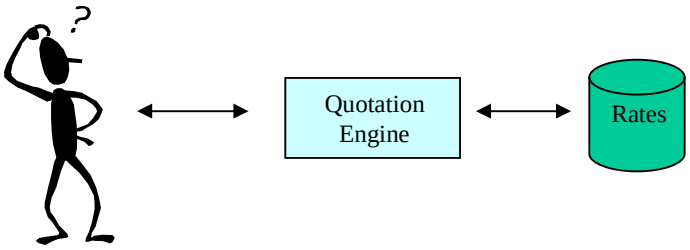

Figure 1

This approach, whilst enabling users to obtain instant quotations, does have a number of drawbacks:

1. It assumes that customers or their representatives can express their requirements in the language of the product and its quotation engine input parameters
2. It often results in a large number of questions for the user to answer before any feedback can be given, as most quotation requests require many input parameters
3. It provides no help for customers who do not know how to express their needs in terms of a product configuration

In this document we propose a more market-oriented approach that allows customers to describe their needs and uses advanced matching technology to map those needs to one or more dynamically generated product configuration. The key technology component to facilitate this is the Matching Systems Engine.

Matching technology

The Matching Systems Engine was designed specifically for the matching of complex products and services. Offerings are described as a rich set of characteristics known as properties, and customers can search for products by describing their circumstances and requirements. Unlike most other matching and search technologies, the Matching Systems Engine allows the products being matched to be accompanied by a set of rules. In this way, the Matching Systems Engine can ensure that only those products that meet the requirements of the customer, and for which the customer meets the requirements of the provider, will be selected as offerings to the customer (see Figure 2).

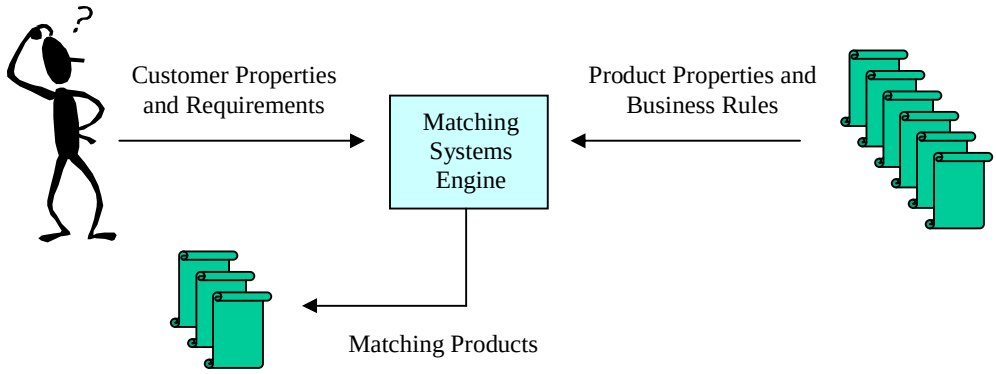

Figure 2: Symmetric exchange of information

In this insurance scenario the customer properties are characteristics that describe the customer and his or her needs. The products advertised in the Matching Systems Engine represent specific configurations of insurance products. Thus one insurance product, which by its nature contains many possible configurations (e.g. levels of cover, levels of deductible, optional coverages etc.), would be represented by many product advertisements. The business rules accompanying each advertisement would map the suitability of that particular product configuration to one or more customer profiles, represented by the combined values of the customer properties. The business rules may include underwriting as well as marketing rules, ensuring that customers are not offered products for which they will be subsequently deemed ineligible.

Addressing micro market segments

This approach allows the insurer to target product configurations at specific market segments, and avoids the need to ask all customers the same typically large number of product specific questions. For example, a car insurance product may have optional accident coverage for passengers. Rather than ask every customer whether they require this coverage, and to what level, the likely need for such coverage could be determined from other customer lifestyle information which may already be available, such as whether the customer has a family, and what kind of journeys they make with the car. The result is a dialogue with the customer that talks about needs and requirements, and does not force the customer to answer questions relating to each and every product feature. The resulting recommendation will be the product configurations that match the customer's needs, and there may be more than one suitable offer for consideration by the customer.

Addressing a market of one

The approach described so far involves advertising pre-specified product configurations in the Matching Systems Engine, together with rules to associate them with customer profiles or market segments. The Matching Systems Engine supports a much finer segmentation via a mechanism known as dynamic properties. Instead of pre-specifying each product configuration as a set of fixed value product properties, such as the amount of cover, the duration of the policy and the level of the deductible, the insurer may choose to declare any of the product properties as dynamic. A dynamic property obtains its precise value only at the time it is required, during the matching process. By taking into account information that the customer has provided during the dialogue (the customer properties), the value can be tailored to suit the particular needs of the individual customer.

The Matching Systems Engine automatically triggers the calculation of dynamic property values whenever they are needed. In place of a fixed property value, a dynamic property element of an advertisement contains configuration rules that will be used to calculate the value. These rules can be self-contained for simple calculation. For more complex calculations, or values that require input from external data sources (e.g. looking up the customer in the corporate database), configuration rules can include calls to external systems.

By including dynamic properties among the set of product configurations advertised in the Matching Systems Engine, a huge number of product possibilities can be described by means of a manageably small number of product advertisements. Product offerings will be selected as a result of the matching of customers to market segments, but the precise details of each offer can be tailored automatically to reflect the specific needs and characteristics of each customer.

Solution Scenarios

A number of solution scenarios exist depending on the type of product or products involved. For insurance products that have complex structures with many optional features but simple pricing, the customer's details and requirements can be passed to the Matching Systems Engine via simple input forms, while the provider can manage the xml documents that make up its portfolio of product configurations and their associated marketing and underwriting business rules. The dynamic property mechanism described earlier can be used to calculate the premium. Travel insurance would be an example of the kind of insurance product well suited to this approach.

Insurance products with more complex price calculations, such as car insurance and many life products, may need to link to an existing quotation engine. If the function of the engine is merely to calculate a price, then this can be achieved with the above scenario by using the external program call feature for a dynamic property representing the premium payable. However, many quotation engines do much more that calculate a price – they prepare the offer and its terms and conditions for presentation to the user. In this situation, the Matching Systems Engine is not used to select products for presentation to the user, but rather to select product configurations and their associated parameters for submission to the quotation engine. The resulting output of the quotation engine is then presented to the user, as illustrated in Figure 3 below.

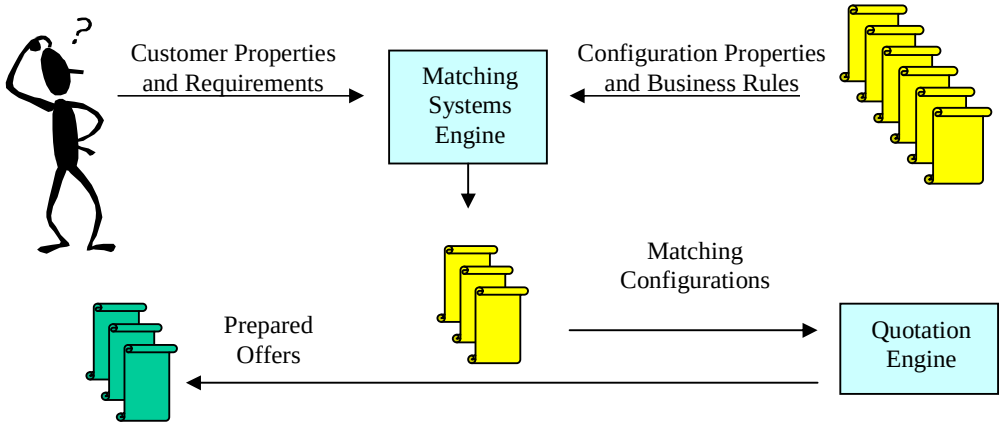

Figure 3: Complex product with external quotation engine

A more interactive approach can be adopted by allowing interaction with the user before the call to the quotation engine is made. The user can be presented with the assumptions and options proposed by the system (a summary of the matching configurations) and given the option of confirming or altering these assumptions prior to receiving final offers. It is often the case that the quotation engine has greater information needs than the Matching Systems Engine, and so the gathering of information from the user can be broken down into stages punctuated with feedback, ensuring that the user's interest is retained. This is a particularly valuable feature when the user is a direct customer, who probably does not use the system frequently.

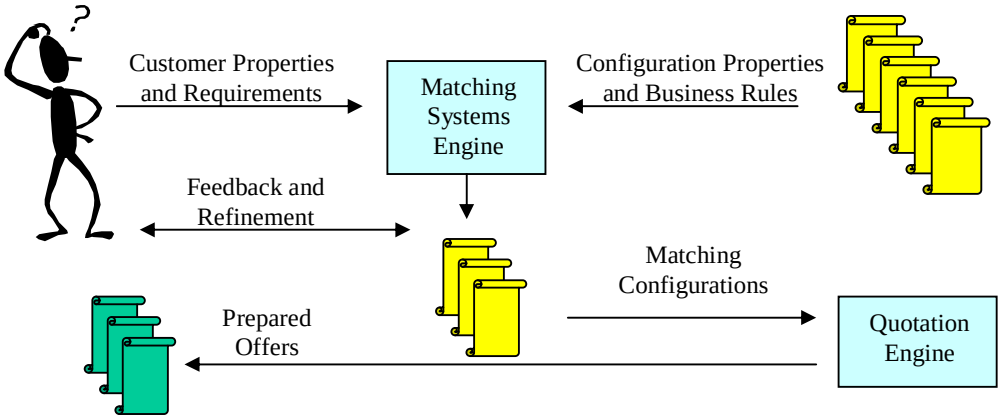

Figure 4: A more interactive dialogue

Towards Product Components

The Matching Systems approach to product configuration and personalisation can be taken to a finer level by applying it to product components instead of whole products. Here the customer's request for an overall solution is broken down into constituent parts, each of which involves the matchmaking process to find the most suitable component configuration, and if appropriate, a separate invocation of a quotation engine. This component approach to product design and management facilitates the dynamic composition of very complex products tailored to suit each individual customer. Each component can be viewed separately from marketing and underwriting points of view, yet the components need not be totally independent of each other. For example, the level of cover offered by one component may depend on the level of cover already selected for another component, or the premium element for components may depend on the combination of components that have been matched.

Such an approach does represent a more fundamental change in the way insurance products are designed and managed, and places particular demands on the administrative and actuarial systems that support the product. It brings considerable flexibility and enables highly complex solutions to be composed in a personalised manner in a totally automated environment, substantially reducing the cost of selling more complex products such as commercial lines in the non-life area, and personal financial services offerings in the life and pensions area.

Multi-Provider Solutions

There is nothing that restricts this approach to assembling solutions from components supplied by a single provider. Indeed, the Matching Systems Engine was designed with distribution in mind, so advertised components can be managed remotely by different product providers. The system's security system ensures that providers can only see and manage the advertisements they placed, and the administrator can determine which types of products individual providers can advertise. Different Matching Systems Engines, located in different organizations, can also combine to form a distributed network of matching engines that can have the external appearance of being one large single Matching Systems Engine.

For more technical information about the Matching Systems Engine, and for details of other business applications of the technology, please visit the Matching Systems web site at www.matchingsystems.com.