Original Article

Marketing DSS architecture for sports sponsorship management

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ABSTRACT As sports marketing is an important business activity for sport organizations, precise marketing actions must be developed frequently. This study considers the business-to-business side of sports marketing. Marketing managers should consider features of each specific corporation for development of appropriate marketing actions. This article suggests a decision support system for generating a proposal and marketing mix for each corporation as sponsor or advertiser based on a case-based reasoning approach. Past marketing plans, customer information and past proposals are valuable documents containing marketing knowledge and experiences. Marketing managers develop and execute marketing plans and proposals. Therefore, understanding how to systematically keep the past marketing and sales histories in an information system, provide a mechanism to efficiently retrieve the most suitable plans or proposals, and facilitate adaptation is very necessary and beneficial to sports marketing managers.

INTRODUCTION

With the trend toward narrowly targeted or one-to-one marketing, many companies are adopting direct marketing as a way of direct communication with carefully targeted individual consumers to obtain an immediate response. Today, spurred by rapid advances in database technologies and new marketing media, especially the Internet, direct marketing has developed dramatically. Some Internet technologies, such as electronic catalogs and direct mailing, have been implemented on direct marketing models. Whether employed as a complete business model or as a supplement to a broader integrated marketing mix, direct marketing can bring many benefits to both buyers and sellers. As a result, direct marketing is growing very rapidly.[1] On the other hand, direct selling is a dynamic, vibrant, rapidly expanding channel of distribution for marketing products and services directly to consumers. An important component of the direct selling industry is multilevel marketing, which is also referred to as network marketing,

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structure marketing or multilevel direct selling. This has proven over many years to be a highly successful and effective method to compensate direct sellers for the marketing and distribution of products and services directly to consumers. Direct selling provides important benefits to individuals who want to earn an income and build a business on their own, and to consumers who enjoy an alternative to traditional retail outlets. It offers an alternative to traditional employment for those who desire a flexible income-earning opportunity to supplement their household income, or whose responsibilities or circumstances do not allow for regular part-time or full-time employment. However, direct selling should not be confused with terms such as direct marketing or distance selling, which may be described as an interactive system of marketing that uses one or more advertising media to affect a measurable response and/or transaction at any location, with this activity stored on a database.[1]

Sports marketing involves all activities that intend to satisfy the demand and desire of customers (for example, national or international companies, sponsors, product advertisers). Owing to increased advertising, media broadcasting, promotion and endorsements, organized sport is no longer only a sport but a business as well.[2]

Organizations have realized that customer knowledge is a key element for supporting the various organizational decisions.[3] On the other hand, the intense competition and increased choices available for customers have created new pressures for marketing decision-makers, and a need has emerged to manage customers in a long-term relationship. Customer relationship management (CRM) requires that the sport organizations tailor their services and interact with their customers (for example, event sponsor or advertiser) based on actual customer preferences and needs. There is an increasing realization that effective CRM can be done only based on

a true understanding of the needs and preferences of the customers. Under these conditions, CRM analytics or DSS tools can help uncover the hidden knowledge and understand customers better, while a systematic knowledge-based system effort can channel the knowledge into effective marketing strategies. This makes the study of the knowledge extraction and management particularly valuable for marketing.[3]

I address this issue in this article by presenting a framework for knowledge discovery, in the context of sport marketing decisions.

MARKETING AND EVENT SPONSORS

Shank[4] defines sports marketing as 'the specific application of marketing principles and processes to sport services and to the marketing on non-sport services through association with sport'. He also defines the sports marketing mix as involvement in promotional activities such as advertising, sponsorships, public relations and personal selling, and involvement in product and services strategies, pricing decisions and distribution issues.[4]

The sports marketing industry can be categorized in a number of different ways, as seen in the above discussion. In this article, the simplest classification will be used. This breaks sports marketing into two categories: the marketing of sports (marketing sporting events and equipment to spectators and participants) and marketing with sports (promotion of non-sport products at sporting events and using athletes to endorse non-sport products).[5]

Many of the problems encountered by managers of sports organizations exist as a result of a lack of understanding of the specific requirements of customers. Customers receive many proposals each year, and only those that capture their attention and offer real value are even looked at. There is a need for software

that provides complete and comprehensive assistance for sport marketing managers.[6]

This article defines marketing knowledge as 'all knowledge concerning marketing efforts in an organization, especially knowledge about services, markets, customers and marketing strategy, as well as experiences of past marketing efforts such as marketing plans, proposals and so on'. Obviously, this leads to a very broad concept of marketing knowledge of sport organizations, but given the early stage of research on knowledge-based approaches to sports marketing, this definition should prove to be a helpful guidance for research. Today's customers have such varied preferences that it is not possible to group them into large homogenous clusters to develop marketing strategies or proposals.

In fact, each customer wants to be served according to her individual needs. Most organizations have built up databases about their customers and their purchase transactions,[3] but, owing to lack of appropriate tools and techniques to analyze these databases, a wealth of customer information and buying patterns is permanently hidden and unutilized in such databases. Knowledge-based marketing, which uses appropriate tools, addresses this need and helps leverage required knowledge in databases.[3]

Past marketing plans, customer information and past proposals are valuable documents containing marketing knowledge and experiences. Marketing managers develop marketing plans and proposals. Therefore, understanding how to systematically keep the past marketing and sales histories in an information system, provide a mechanism to efficiently retrieve the most suitable plans or proposals, and facilitate adaptation is very necessary and beneficial to sports marketing managers.

Sponsorship is big business. Major international sporting events (such as the Summer and Winter Olympic Games, and the FIFA World Cup) command sponsor fees running into the hundreds of millions of dollars, via which each global sponsor acquires marketing rights to the all-inclusive use of the event, its images and logos. Worldwide sponsorship generated US$663 million in revenue for the 2001–2004 Athens Olympic cycle.[7,8]

In order to gauge whether respondents were able to correctly identify sponsors and non-sponsors, they were presented with three brands in each category and asked to answer 'Yes' or 'No' regarding whether that particular brand/company was a sponsor of the sport event. For example, in the case of credit cards, respondents were required to answer Yes or No to the question of whether Visa was a sponsor (it was), MasterCard was a sponsor (it was not) and American Express was a sponsor (it was not).

METHODOLOGY

Case-based reasoning (CBR) is a subset of knowledge-based systems. CBR is a problem-solving paradigm. CBR systems solve new problems by utilizing specific knowledge of past experiences. CBR provides a conceptual framework in which to store the manager's experience and to later provide that experience to others to facilitate the situation assessment and solution formulation processes. This is accomplished by providing a context in which the human operator can view the current state and recent activities of the system and have easy access to previous experience. Aamodt and Plaza[9] have described CBR as a cyclical process comprising the four 'Re's.

1. Retrieve the most similar case(s).
2. Reuse the case(s) to attempt to solve the problem.
3. Revise the proposed solution if necessary.
4. Retain the solution as part of a new case.

The cases (customer knowledge) are structured and stored in a case base, which the user queries when trying to solve a problem (Figure 1).

Figure 1:   Structured parser of customer knowledge.

DECISION SUPPORT SYSTEM FRAMEWORK

The purpose of the proposed system is to provide a framework for sport organizations in developing marketing plans and proposals and extracting marketing recommendations. The system architecture is depicted in Figure 2.

The system retrieves a set of similar cases (customer knowledge) and then evaluates the similarity between each case in the database and the problem (new opportunity). When the user finds a solution, and its validity has been determined, it is retained as a new case in the database for future use. It can be seen here that a new problem is matched against cases in the case base.

The system uses CBR to find similar customers within old cases and to propose an appropriate proposal and marketing mix for new customers according to these similar cases. In designing a CBR system, case representation is the first step. A case should contain both content and context, typically composed of the problem, solution and outcome (Figure 2). The physical database of the system is shown in Figure 3. Sport marketers are usually required to develop sponsorship proposals that outline what the sport event offers to sponsors, what the sport event expects to receive from sponsors, and how the win-win situations will be implemented and evaluated (Figure 4).
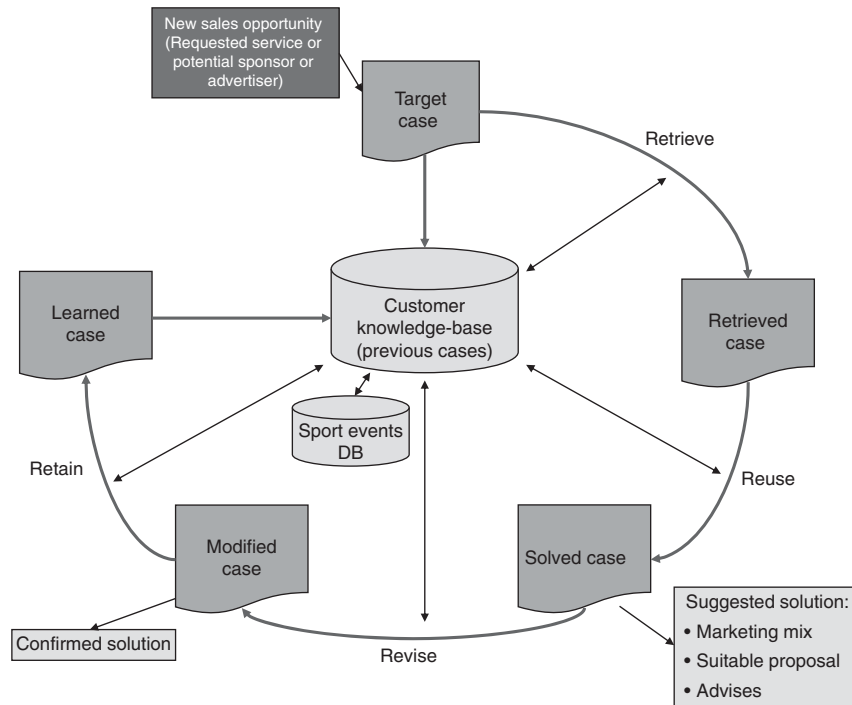
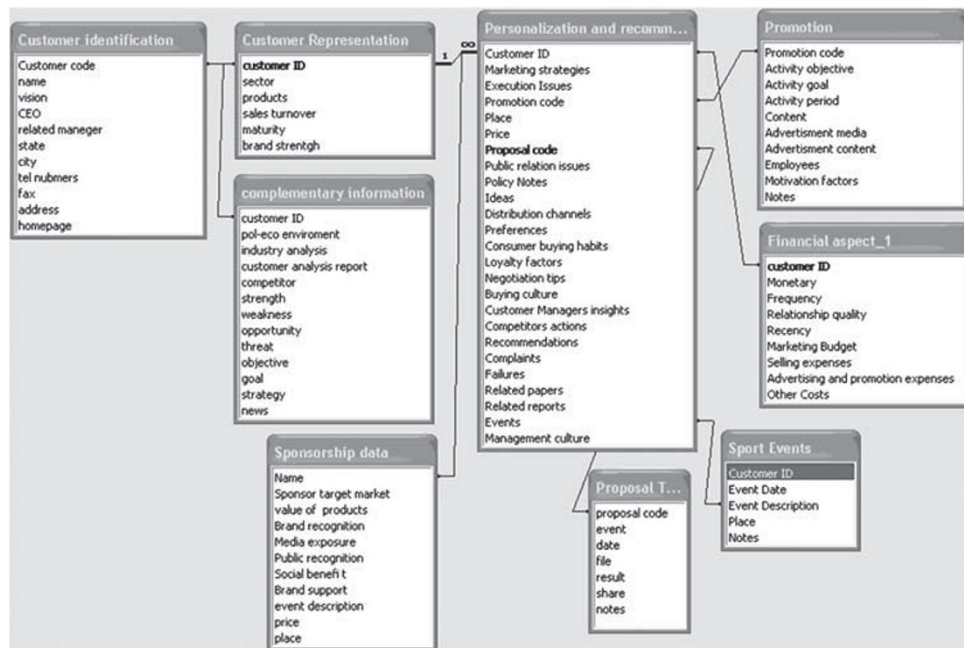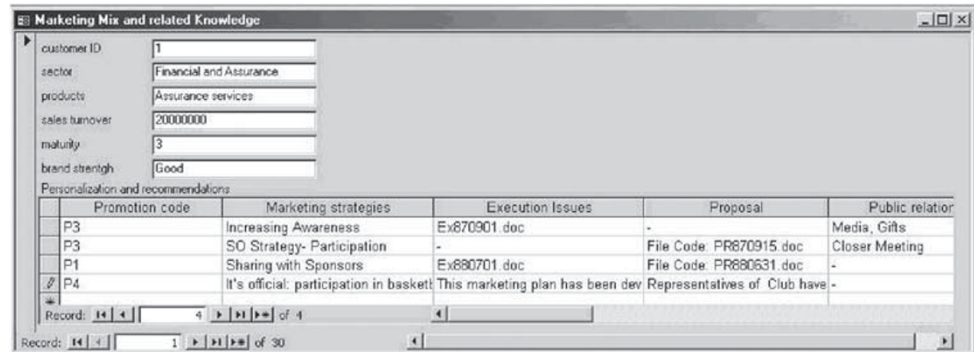**Figure 2:** System architecture.

Figure 3: Physical database.

Figure 4: The interface showing the final retrieved cases.

DISCUSSION

The proposed system allows sport organizations to manage their customers. The database contains detailed customer information that managers and sales forces can referee in order to match customer needs. The system has five major benefits:

- Fast marketing plan development related to each new situation.
- Fast and customized sponsor proposal development for a new business customer in a new sport event.
- Increased sales through better timing owing to anticipating needs based on historic experiences and knowledge.
- Identifying needs more effectively by understanding specific customer requirements related to specific sport event.
- Cross-selling of other services by highlighting and suggesting alternatives or enhancements.

The purpose of this research is to build a framework that will guide research toward a better understanding of marketing knowledge, which facilitates learning and thus improves performance of marketing.

This system is powerful, intuitive, easy to use and fully integrated. It can store all prospect and customer contact and transactional information for easy access and analysis. This system can be configured to support the specific needs of business-to-business sports marketing. It enables the marketing manager to plan and build cohesive, integrated sports marketing plans or proposals with required details with minimal effort.

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