

Title:

Real time technologies in marketing – interaction management

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Synopsis:

This paper provides an overview of the real time marketing solutions (interaction management) that are being promoted by vendors. It identifies the key components to look for when evaluating these types of solutions and explore some of the business applications, especially those in marketing.

Introduction

We have been asked by a number of clients to explain the differences between the various “real time marketing solutions”. This paper provides a high level description of these technologies, there advantages and dis-advantages and some typical business applications.

Definition

The label “real time marketing solutions’ is being used by vendors to describe a wide range of technologies. The term has become popular as vendors try and ride the current interest by organizations in all things in real time. It does not really provide a good descriptor for this emerging class of software applications.

We prefer the term Interaction Management technologies as it better describes the business focus of these technologies.

The Interaction Management technologies deliver marketing offers to customers or prospect in real though one or more communication channel and then monitor the effectiveness of these activities. In most cases these technologies have embedded or associated analytics that drive the offer decision making process.

Perhaps the most common business application is the use of interaction management technologies to drive cross-sell marketing offers to a Call Center Representative (CSR) while he/she is engaged in a dialogue with the customer.

The offer decisioning process may use data from the touch point and/or data that is held on the customer database.

The performance of these types of marketing offers is normally good with response rates commonly in the 20-30% range. The reason for this above average performance is the timely and relevant nature of the marketing offer. The contact point e.g. call center dialogue often providing valuable contextual data as input into the offer decisioning process.

Many of these interaction management technologies have been developed for use within one specific channel e.g. call center, web site but over the last few years they have been enhanced to address the cross sell and up-sell requirements of today's multiple channel business environments.

It would be fair to say that the ability to make personalized marketing offers across all channels in real time is still the vision, with few vendors getting anywhere near this target without the need for significant bespoke development. Vendors are struggling to cope with the rapid emergence of new communication channels e.g. instant messaging, multi-media messaging and with the slow adoption rate in client organizations.

But we believe that this class of technologies and this approach to marketing will become important focus areas for marketing teams in today's organizations. The high yield and ability to automate the process with self learning tools will ensure that interaction management technologies see high adoption rates across the finance, telecommunication, media and retailing sectors over the next two or three years.

Business applications

The primary business application for the use of interaction management technologies is the delivery of offers at the customer contact point.

The following marketing business objectives have been supported using these technologies:

- **Cross-sell communications**

A customer is presented with a personalized offer on a web site asking them to take out a personal loan product, the decision to offer the customer the product was based on current credit card product involvement, product propensity and pattern of usage of the web site

- **Up-sell communications**

A customer is presented with a personalized offer on a web site asking them to take out an enhanced subscription to an information service, the decision to offer the customer the product is based on current subscription and usage level

- **Retention communications**

A customer is sent an SMS suggesting that they visit a cosmetic department of a retail store to get a special offer. The offer decision was based on churn propensity score and location within the store.

- **Recovery communications**

A customer is sent a multi-media message suggesting that they renew a service based on previous product involvement and recent visit to the company web site for sports news three months after they had cancelled the standard automated service.

The key business driver in most organization is cross-sell but there have been some interesting case studies in the use the interaction management technologies to support customer recovery in particular.

In addition some of the interaction management technologies have started to be used to drive other business objectives including

- **Customer service communications**

Key questions during the initial part of an inbound call used to pre-qualify an opportunity and pass to the relevant sales team.

- **Customer Surveys**

A customer receives a pop up window on a web site asking them to complete a survey after visiting the site 3 times in one month.

- **Data validation**

A customer is asked to validate data held by the organization as part of the close on a customer support call.

- **Management of opt-in status on web sites**

A customer receives a pop up window on a web site asking them to confirm opt-in status for a news letter after they have received four copies.

The following channels have been address by one or more vendors:

- Call centers:
 - In bound
 - Out bound
- Retail touch points:
 - Sale person in branch e.g. teller in a bank branch
 - ATMs
 - Kiosks
- Web sites
- Mobile communication devices
 - SMS messaging
 - Multi-media messaging
 - Real time video
- Instant messaging

The channels that saw early adoption of these technologies and in reality drove the development of this technology class were the call centers closely followed by the internet. Most of the heavy analytics and self learning intelligence was developed for use on the Web.

Key components of the technology

The following section of the paper describes the key components of the interaction management technologies:

Data management

A key component of the interaction management technologies is data management. In order to make effective decision about what offer to make to a customer the decision engine needs to get access to a range of data. These data source may include:

- Data warehouse
- Product management systems
- Billing systems
- Service provisioning systems
- CRM systems
- Contact center systems

The ability to get access to multiple sources of data in real time is one of the key requirements that differentiate this class of technology.

In some cases this functionality is provided by other third party middleware applications.

Note: In which case make sure the vendor has a proven track record or the solution is thoroughly tested before purchase.

Key feature required include:

- Ability to access a wide range of data storage types including RDMS (Relational Database Management Systems)
- Ability to access a wide range of hardware environments
- Ability to read source application meta data (data about data)
- Ability to map different data sources into the interaction management technology
- Ability to manage security between the various data sources
- Ability to access source data within the required timeframes

In some cases vendors or client organizations have chosen to copy the required data into a separate database, this provides a lower risk solution (less dependency on network and source system performance) but do have storage overheads and issues with data synchronization.

This whole area of data management is one that should receive the most scrutiny as this is the area where most project failures occur.

Decision engine

This component is concerned with making the decision on which offer(s) should be presented to the customer or prospect. It is this area where most of the vendors have tried to differentiate their solutions.

The following are examples of some of the approaches that have been adopted by the vendors:

- **Rules engines based solutions**

These technologies allow a marketing user to create business rules that can be applied to data to determine which offer is most appropriate for a customer during a customer interaction.

Advantages

- Easy to deploy
- Simple to understand
- Mature technology

Disadvantages

- Limited to simple rules
- Combining rules results in difficult to predict outcome

Examples: Blaze, Actimize

- **Real time scoring**

As part of the customer interaction the individual customer data is scored and a decision tree based on score bands is used to determine the most appropriate offer.

Advantages

- Allow model scores to be used to drive the offer decisions process
- The models used can be very complex
- Marketing performance is normally better than with rules engines

Disadvantages

- Tend to require technical skills to implement
- Integration can be difficult

Examples: SAS C and J Scores, Epiphany Interaction Advisor

- **Real time modeling**

These technologies allow a marketing user to embed a modeling process into a touch point technology E.g. call centre. In this case the solution takes data inputs and either re-calibrates or re-builds a predictive model. It then scores the individual customer data and a decision tree based on score band is used to determine the most appropriate offer

Advantages

- Re-builds or recalibrates the model in an automatic or semi-automatic manner
- “Self learning” technology
- Marketing performance is normally better than scoring engines

Disadvantages

- Requires large volumes of input data so tend to be used with web sites only
- Generally not a mature technology area
- Model follows “its tail”

Examples: SPSS Data Distilleries, SAS Enterprise Miner

- **Optimization based solutions**

These technologies allow a marketing user to apply a set of business constraints to a number of campaigns or communications within a campaign and determine the optimal customer channel offer mix. They tend to be deployed in a batch mode but are starting to be used in real time context.

Advantages

- Takes into account business constraints when making the offer decision
- Uses a statistical basis for the optimization
- Marketing performance is normally better than rules or scoring engines

Disadvantages

- Not really used for real time decisioning
- Few vendors in the market

Examples: SAS Marketing Optimization, Unica Optimization, Market Switch (Experian)

- **Trigger based solutions**

These technologies allow marketing users to create sets of rules that filter transactional type data and look for abnormal transactions for an individual. They then use these triggers as input into the offer management process. The user is normally able to set thresholds for “abnormal” behavior.

Advantages

- Very good at handling large volumes of transactional type data e.g. web site traffic
- Flexible definition of abnormal behavior

Disadvantages

- Require transactional type data
- Performance can be an issue

Examples: SAS Interaction Management, Actimize

- **Hybrid solutions**

These technologies use one or more of the previous methods. The most common combination is a rule engine plus another technique. But we are starting to see them combined with scoring engines.

Advantages

- Claim to have the best results (not proven in all cases)
- Get round some of the real world issues associated with individual techniques e.g. business constraints with a rules engine or scoring process

Disadvantages

- Few vendors
- In some cases immature technologies
- May be based on profiles and not customer level data

Examples: Epiphany Interaction Advisor, NCR Relationship optimizer

As can be seen above all the approaches have been used with different degrees of success. They all have advantages and disadvantages. When reviewing these solutions look for bench mark data in your industry and/or look to do comparative testing based on your organizations data and channel requirements.

Although at the heart of the interaction management technology, do not ignore the other components.

Channel integration

A key component of the interaction management technologies is channel integration. Having made a decision what offer is to be made to the customer or prospect the solution should allow the offer to be surfaced to the relevant channel. This will mean integration with a range of technologies.

- Call center
- Web site
- Branch systems
- ATM
- Kiosks

In many cases an organization may have more than one type of technology covering a channel. E.g. multiple call center systems.

In addition this integration has to take place real time.

Key features required include:

- Ability integrate with channel technology
 - Hardware
 - Software
- Ability to work along side the channel technology (over lay existing screens)
- Ability to map different target systems into the Interaction Management technology
- Ability to manage security between the various data sources
- Ability to capture offer status and outcome data

In order that a customer does not repeatedly get exposed to the same offer there needs to be a real time feedback loop between the channel and the offer decision engine.

Reporting

A key component of the interaction management technologies that is often ignored is reporting, this is because most vendors assume that the client organization will use existing enterprise reporting technologies. This is not always the case.

Key features required:

In order to adopt the first option it is essential that the following data types can be shared with the reporting applications:

- Interaction management application reference data
- Offer data
- Communication status data
- Outcome data
- Product purchase data

The reporting technology should support:

- Fixed reports
- Parameter driven reports
- Dynamic reporting
- User define reporting

These reports should be surfaced through a portal environment that supports the concept of publish and subscribe. This allows the user to control what reports that they subscribe too.

In addition the solution should provide access to a range of reports that monitor the performance of any analytical processes used by the solution.

Recommendation

When evaluating these technologies the usual rules apply:

- Ensure you understand your business requirements
- Ensure you understand your technical requirements
- Ensure the technical evaluation process is rigorous, particularly around data management and integration
- Ensure you have a complete vendor profile
- Use vendor blind (organized by client organization, no vendor involvement) reference sites to validate vendor's claims and understand delivery requirements
- Understand implementation approach and internal resource requirements

Summary

The term "real time marketing solutions" commonly used by vendors is not a very good description for these technologies. We prefer the term Interaction Management technologies as the better describes the business focus of these technologies. Their primary focus is delivering marketing offers to customers or prospect in real though one or more communication channel and then monitor the effectiveness of these activities

The performance of these real time marketing offers is normally good with response rates in the 20-30% range common. The reason for this is the timely and relevant nature of these offers.

We believe that this class of technologies and this approach to marketing will become important focus areas for marketing teams in today's organizations. The high yield and ability to automate the process with self learning tools will ensure that interaction management technologies see high adoption rates across the finance, telecommunication, media and retailing sectors over the next two years.