Software review

Business requirements for campaign management — A sample framework

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Shaun Doyle

is CEO of Cognitive Box, a marketing technology solution provider. He currently spends alternate weeks in the USA and UK helping clients to improve their marketing performance. Prior to setting up Cognitive Box he was VP Intelligent Marketing Solutions at SAS. In this role he worked with various parts of the SAS organisation to develop business-oriented solutions for marketing, in particular the SAS Marketing Automation (MA) Solution and SAS's industry-specific solutions for telco and retail banking. He was founder and chairman of Intrinsic, a campaign management vendor acquired by SAS in March 2001. He is well known in the marketing industry and regularly participates in leading industry conferences. He is also author of a number of papers on the application of database marketing that have been published in the UK and elsewhere.

Abstract The successful selection of any campaign management technology and its subsequent delivery are predicated on a clear understanding of business requirements. This paper describes a sample set of business requirements for a campaign management solution for a bank. It is hoped that it will provide a framework for those starting to explore the opportunities that the current market for campaign management solutions is providing.

INTRODUCTION

It has been interesting to watch the demise of a number of strong campaign management players over the last few years, and it is possible that there will be a number of other niche vendors that will bite the dust or be acquired in the near future.

The campaign management application market has matured, and the core business requirements are supported by most of the main vendors and so it is timely to review what these key business requirements are and provide a framework for those looking at campaign management for the first time or hoping to upgrade to second generation solution.

This section of the paper documents the key business requirements that would typically need to be supported by a

campaign management solution. A financial service organisation has been used as a backdrop but the principle is the same for other industries.

Campaign types

Most organisations want to support the types of campaigns shown in Table 1, some of which are discussed in more detail below.

Trigger-based campaigns

In trigger-based campaigns it is hard to predict the volume of customers eligible for certain campaigns so there will be a need to manage the peaks using the 'Manage Channel Capacity' capability (see later section).

Shaun Doyle
Cognitive Box (Consulting)
Ltd, Sams Barn,
The Greenway,
West Hendred, Wantage,
Oxon, OX12 8RD, UK.
Tel: +44 (0)1235 821 353;
Fax: +44 (0)1235 861 678;
e-mail: shaun.doyle@
cognitivebox.com

Table 1: Types of marketing campaign

Type	Description	Examples
Single stage campaign	The customer receives a single communication. Campaign may consist of one or more versions of the communication that is sent to different customer groups (cells).	New loan offer by direct mail
Multi stage campaign	The customer receives a series of communications. Most common version consists of a follow up communication to non-responders to an initial communication. Each step may use one or more versions of the communication. May be either single or multi-channel.	Initial direct mail communications with direct mail follow up
Single channel	A single or multistage campaign using the same communications method (channel) for each communication	Initial direct mail communications with a direct mail follow up
Multi-channel	A single or multistage campaign using more than one communications method (channel).	Initial direct mail communications with telephone follow up.
Trigger-based	A single or multi-stage campaign initiated as a result of a change (trigger) in customer profile data, customer behaviour, or product related data. A number of triggers can be combined to define an event.	Customer <ul style="list-style-type: none"> — Starts reducing credit card usage — Starts paying mortgage via different bank — Stops using the internet service — Moves from one segment to another — Churn score rises quickly in a period
Proactive and passive campaigns		

If a trigger is associated with a change in customer behaviour then there should be a measurable statistical correlation. The solution should have the ability to test the validity of the potential triggers, which may be based on business rules or model scores.

The critical success factor for trigger-based campaigns will be timelines. In order to meet this requirement, campaigns will be run on a daily basis. If possible, there will be a requirement to execute the communication either the same day or the following day at the latest.

The bank will want to integrate trigger-based campaigns with other campaign types as part of the campaign management process.

Proactive and passive campaigns

The solution should be able to identify the different types of communication —

proactive or passive — within a campaign. Note that passive campaigns can be multichannel and multi-stage.

This is discussed in more detail in the section on communications channels.

Campaign objectives

Campaigns will be executed to meet one or more business objectives:

- **Cross selling;** the objective of these types of campaigns is to get a customer to purchase another bank product or service. Examples include selling a loan product to an existing current account holder.
- **Upselling;** the objective of these types of campaigns is to get a customer to upgrade an existing product or service, such as changing from a standard account to a premium account.
- **Retention;** the objective of these

Table 2: Summary of communications channels status

Current status	Proactive channels	Passive channels
Existing	Branches Direct mail Outbound call centre Outbound telemarketing Statement inserting Statement messaging E-mail	Branches Web Inbound call centre
Planned	Short message service (SMS) IVR (outbound) E-mail	Interactive voice recognition (IVR) (Inbound) Automated teller machine (ATM)

types of campaigns is to get a customer to retain an existing product or service. Eg retention calls to a customer with churn score that rises quickly in a period or has not had any activity on their current account in a period (dormant).

- **Recovery;** the objective of these types of campaigns is to get a customer to re-instate an existing product or service. This might include making recovery calls to a customer three months before the anniversary of the customer cancelling a personal loan.
- **Statutory/operational communications;** this type of campaign is for passing important information to the customer rather than selling a product or service. Eg communication to all customers explaining changes in the bank terms and conditions.
- **Market research communications;** these types of campaigns are for getting customers to respond to a market research survey, not to sell a product or service. Eg market research survey to customers after a campaign has been completed to assess quality of marketing materials.
- **Data enrichment communications;** the objective of these types of campaigns is to collect additional information (eg via a simple survey) about the customer.

- **Customer acquisition campaigns;** the objective of these types of campaigns is to communicate with prospects and convert them to customers. A prospect may or may not have had contact with the bank. They may have made an enquiry about a product or service but not purchased. Depending on the nature of the enquiry, some data may have been collected as part of the enquiry process in the bank. An example is a communication to a customer who came to the branch to make an enquiry.

COMMUNICATIONS CHANNELS

This section describes the proactive and passive communications channels that the bank plans to use to support US marketing communication objectives. Table 2 summarises the channels (proactive or passive) that require support from the bank.

Proactive communication channels

The bank would like to use the proactive communications channels described in the next sections to communicate with customers.

Direct mail

The bank would like to have the flexibility to use both internal and

external print production capabilities.

For trigger-based campaigns, the bank will need to be able to print and mail small but varying volumes of personalised communications on a daily basis. These might include direct mail packs including a response device (coupon) to promote a new product.

Outbound telemarketing and outbound call centre

The bank would like to be able to use internal and external resources to support these campaigns. It would like the capability to use scripting or other supported selling techniques, where this is the case it should be possible to personalise the call using a range of customer data.

There is a need for feedback from the telemarketing centres to confirm that the customer has been called and the outcome of the call — eg the relevant contact history record should be updated. Where possible, the feedback should be available in real time or near real time (hourly as a minimum). This information will be used to refine the targeting of the campaigns. The feedback should also contain the reason behind the customer's response eg customer refused an offer — reason code: too expensive.

There is a need for the telemarketing centres to be able to present the campaign to the customer service representative (CSR) along with communication regarding the customer and a script.

Eg retention calls to customers with high churn score.

Branches

Branches are the most important communications channel and are heavily used. Currently, the bank's branches are used to make proactive calls to

customers. In addition, they will also be used to support passive campaigns.

Statement inserting

The bank currently uses statement inserting. This allows inserts into the statement envelope. It would like to extend the use of this channel. For example, including a message about a new product or service as an insert suggesting that a customer rings the bank call centre.

There is a requirement to increase the sophistication of the selection process to allow for more targeted use of this capability. This process should take into account the weight of the insert.

The customer will use a range of channels to respond to a communication. The solution will need to capture this response and link it back to the original insert communication.

Statement messaging

The bank currently has the capability to personalise messages on the monthly statement. It would like to improve the targeting of the messages and to improve the capture of response data.

The messaging should support:

- Up to five rows having 70 characters of text.
- No more than five advertisements per statement.

The customer will use a range of channels to respond to a communication, the solution will need to capture this response and link it back to the original statement message.

Interactive voice response (IVR) (Outbound)

The bank is currently not using IVR for campaigns generation. The low cost and

near real time nature of the IVR channel means that it is likely to be used more in the future, however, and the bank would like the software solution to support IVR campaigns.

There is a need for feedback from the IVR system to confirm that the customer has been contacted and the outcome of the communication. For example, sending a customer an IVR message when a new product has been launched then driving a call into the call centre. In addition IVR will be used to drive the customer to other channels in response to the communication.

Short message service (SMS)

The bank is currently not using SMS for campaigns generation. The plan is to start using SMS in a two way mode. For example, the bank sends a customer an SMS when their usage declines. The customer is then able to respond with an SMS and purchase or enquire about a product or service.

In addition, SMS will be used to drive the customer to other channels in response to the initial communication.

A before, there is a need for feedback from the SMS broadcast system, and/or the other channels used by the customer, to confirm that the customer has been contacted and the outcome of the communication. This piece of information should be logged in the contact history of the customer.

E-mail

To date there has been limited use of e-mail as a marketing tool. Customers can register to receive the bank's electronic newsletter on various topics, but the bank does not use this channel for additional marketing communications.

The bank would like to increase its use of this communication method. Its

low costs and near real time nature means that it should prove a valuable tool; however, the current environment does not support the following:

- Confirmation of communication status;
- Click through; and
- Response (purchase).

Again, there is a need for feedback from the e-mail system to confirm that the customer has been contacted and the outcome of the communication.

Moreover, there is a requirement to improve the processes for collecting and maintaining email addresses within the bank and for supporting multiple links appearing in the e-mail.

Passive communications channels

The bank would like to execute passive campaigns through a range of channels.

A personalised targeted offer will be prepared as part of the campaign process and then be passed to a channel. If the customer contacts the channel then the offer will be presented to the customer. As with proactive communications, confirmation is required that the customer has received the offer and of the outcome of the communication.

The bank would like to be able to define the valid period, business priority and available channel for a passive campaign. The software solution should then use this information to manage how these offers are presented to the customer.

The bank would like to use the passive communication channels listed below to communicate with customers.

Branches

The bank has a network of branches that provides retail banking to customers, it

would like to use this channel to support a range of passive campaigns.

Inbound call centres

The bank has a customer call centre that manages the operational aspects of the customer relationship. It would like to use this channel to support passive communications by providing the CSR with a targeted offer for loans to existing customers.

Web

The bank has a website which is used to manage relationships with customers. It would like to use this site to support passive communications such that in the future there will be a requirement to use both the historical data on the customer and the data collected as part of the interaction. This is not currently a high priority, but it will need to be technically supported.

The key requirement is to support offers to existing customers who have registered on the site. In the future there may be a requirement to personalise offers to visitors who have not registered on the site (eg personalised pop-up offers to customers for added value services when they hit a specific part of the site).

Automated teller machines (ATMs)

The bank has a network of ATMs, but, to date, it has been possible to personalise the marketing communications on the system. It is planned that this will change and that the ATM will become a customer touch point that can provide personalised and relevant communication to a customer as part of the transaction.

The key requirement is to support offers to existing customers who use the ATM. For example, personalised pop-up

offers of added value services when customers use the ATM for a specific transaction type.

Interactive voice recognition (IVR) (Inbound)

The bank is not currently using inbound IVR for campaign generation. The fact that the time the customer is waiting for the CSR can be used for campaigning means that it is likely to be used more in the future. The bank would like the solution to support inbound IVR campaigns.

There is a need for feedback from the IVR system to confirm that the customer has been contacted and the outcome of the communication.

KEY MARKETING PROCESSES

The following section describes the key campaign management processes that will need to be supported by a campaign management solution.

In order to meet business targets, the bank will need to increase the volume of campaigns executed per month. To meet this challenge, the current processes and systems will need to be enhanced. The primary focus of this section, therefore, is the requirement for system support for the campaign management processes.

The bank requires a campaign management system that will support the maintenance of campaign reference data, the identification of the target audience, prioritisation of communications activities, definition of communications channels and maintaining histories and records.

Maintenance of campaign reference data

The bank wants to maintain reference data for: programmes, campaigns and

Table 3: Typical reference data for campaign management systems

Typical programme reference data would include the following as a minimum	Typical campaign reference data would include the following as a minimum	Typical communication reference data would include the following as a minimum
Programme ID Programme name Programme description Programme status (active, suspended, cancelled) Business objective Start date (planned, actual) End date (planned, actual) Costs (target, actual) Response rates (target, actual) Return on investment (ROI) (target, actual)	Campaign ID Campaign name Campaign description Campaign status (active, suspended, cancelled) Campaign manager Business objective Campaign type Start date (planned, actual) End date (planned, actual) Costs (target, actual) Response rates (target, actual) ROI (target, actual)	Campaign ID Communication ID Communication name Communication description Communication volumes Communication type (eg email) Costs (target, actual) Responses rates (target, actual) ROI (actual, planned) Stage code Start date Planned dates Volume limits Primary channel Secondary channel

Note: There are a large number of key dates that are included in the campaign reference data.

communications. The solution should be able to support a wide range of reference data (summarised in Table 3). The data will be used to:

- Uniquely identify a programme, campaign or communication;
- Manage the execution of the campaign;
- Control and monitor costs; and
- Monitor and evaluate campaign performance.

The solution should allow control groups to be defined and linked to test groups.

These control groups may be static or change over time.

Identifying target audience

The campaign management solution should allow the users to define the target audience for a campaign and associated communications. It should provide a marketing user with an interface that will allow them to create a target audience for a campaign or any other lists for that matter.

When creating a selection rule the following functionality will be required:

- Ability to use any data in the data warehouse;
- Ability to use data in other systems but not present in the warehouse;
- Ability to use model scores both dynamic and static;
- Ability to support a wide range of criteria;
- Ability to limit the number of records selected;
- Ability to limit and rank the number of records selected;
- Ability to run an external process eg targeting model;
- Ability to limit by branch or channel;
- Ability to support global contact rules (eg recent frequency of communication by channel);
- Ability to combine selection rules (groups);
- Ability to map between levels
 - Customers to household
 - Household to customer to account;
- Determine the primary customer in a household using a business rule as part of the selection process;
- Ability to support test counts including projection against a sample data set and the whole database;
- Ability to count the number of

people identified by the selection rule, by each criteria within the rule.

A super user (a marketing user with advanced skills in the tool) will require the additional functionality:

- Ability to create selection rules directly in structured query language (SQL);
- Ability to create selection rules directly using fourth generation language (4GL);
- Ability to import existing SQL queries from other applications;
- Ability to temporarily add data to the data warehouse and use it in a selection rule. This functionality should be available to non-IT specialists;
- Ability to create derived data items (that are not physically in the data warehouse) and use these as part of the selection rule;
- Ability to profile a target audience (dynamic or standard report).

The target audience may be fixed or dynamic depending on the type of campaign. A dynamic rule updates the list of people whenever it is being used where as a static rule keeps the same list of people. For example, customers with high churn scores with less than three months to go with a current loan and who were not included in a previous campaign.

Creating cells for test and control purposes

Having identified a target audience the solution should allow the marketing user to break the target audience into a series of cells. This capability will be used to test various offers against control groups.

The solution should allow the bank to

use the following methods to define the cell splits:

- Count (random)
- Percentage (random)
- Category
- User define process (procedure)

It should handle the start record for the random split and allow control and test groups to be linked.

Prioritisation of communications activities

The software solution should allow the user to prioritise communications where customers are eligible to receive multiple communications. Targeting models will be used to drive a number of communication activities. It should be noted that the solution should be able to use model scores as part of the selection process.

The prioritisation process should support:

- Single communication to customer in period;
- Multiple communications to customers across different campaigns types in period (cross campaign);
- Setting of maximum weight for inserted statements;
- Business priority score for a target audience, campaign, campaign type or for the individual;
- Recency–frequency of contact overall and by channel.

It should be possible to change the business priority score over time and to be able to reflect these changes in the channels. Prioritisation should be optional at the campaign level and the prioritisation process itself should be supported at the household as well as at the customer or account level. For

example, if a customer is eligible for a retention and a cross offer, the retention offer takes priority.

The bank would like the facility to apply global contact rules. The rules may be run at the customer, product type, channel or campaign level or a combination. For example, customers should receive only one communication in a time period (eg three days).

The bank may want to update the status of an opportunity in the channel environment as a result of changes to the prioritisation rules. This may be done for all or for a sub-set of opportunities (eg segment or campaign).

Defining communications channel

The bank would like the capability to vary the definition of the channels used by the campaign management solution, ie to choose different channels for different target audiences. This will allow the bank to make effective use of the various channels available to it, both internal and external.

The campaign management solution should also support the concept of primary and secondary channels. Primary channels should be used where possible; when there is no available capacity, the system would then switch the communication to the secondary channel.

The solution should allow the customer or account to be linked to a channel or channel agent (an individual in the channel). It should be possible to remove these data from the campaign management solution.

Defining communications output

The bank would like the capability to vary the definition of the output from the campaign management solution. This should be a marketing user enabled

solution, which will facilitate the personalisation of communications to customers. It will also allow the Bank to make effective use of the various communications channels available to it, both internal and external.

The definitions should be saved as campaign management objects for recurring use.

Where appropriate, the transfer of data to the channel should be fully automated and timely. Outputs should also support formulae and complex derived data. This data will include list of customers/accounts and the associated campaign reference data. The export of both data types should happen at the same time (eg output customer name and address for a direct mail campaign).

Maintaining marketing contact history

The bank would like the capability to create a marketing contact history as part of the campaign execution process. This contact history will be used to monitor campaign performance. It would also like the ability to share this marketing contact history with other parts of the business such as the branches.

It should be possible to record contact history at the household, customer and account levels.

The solution should support different communication status codes and an audit trail. It should also be possible to maintain the contact history manually (using the campaign management application), and direct from other systems.

The contact history, associated response and comments tables will need to be archived and/or summarised.

Exploiting seeds

The bank would like to be able to maintain seed data (name and addresses

for the bank staff) that are to be added to export files. These seeds will need to be appended to the communication file and then used to monitor the execution of the campaign. They should, however, be excluded from all campaign performance reporting.

Executing communication

The bank wants the capability to schedule the execution of a campaign at both the campaign and the individual communication level.

The campaign management solution should allow the bank to execute a campaign:

- Immediately
- At a defined point in time
- At regular intervals
- Calendar days
- External event (system event)

When it is time to execute the campaign, the solution should:

- Apply the selection rules
- Apply the prioritisation framework
- Apply the cell splits process
- Apply optimisation rules (if any)
- Extract the required data (list and campaign reference)
- Transfer communication data to target system or delivery channel
- Receive feedback from channels
- Receive updated customer and product data
- Apply response rules
- Run standard reports

It should be possible to:

- Schedule a component of a campaign
- Cancel the campaign
- Restart a campaign
- End of previous campaign (extract)

The solution should be able to initiate campaign processes from an external application.

It is this scheduling capability that will allow the bank to automate the execution of campaigns and improve the productivity of the team, eg run birthday SMS campaigns every day for those customers whose birthdays fall on that particular day.

The solution should enable scheduling of a campaign based on various population segments.

The scheduling mechanism will allow the option to define holidays and special occasion time breaks over a time.

The solution should support cancellation of campaign executions in various execution phases. Amendments should take into consideration altering the target audience linked to a campaign as an example. Following the relevant amendments, new campaigns should be generated automatically. In the case where a campaign is halted in the middle of the execution, recency–frequency calculations should omit customers that haven't received the communication.

Maintaining communication status

The bank recognises that a customer may or may not receive a planned communication for a variety of reasons. As a result, it is important that there is feedback from the communications channels to ensure that the marketing contact history is correct.

The following types of data are implicated:

- Customer ID
- Account ID
- Communication ID
- Communication date
- Communication status
- Communication failed reason code (eg hard bounce)

It is important that the bank is able to understand why the communication has not been executed.

The campaign management solution should support the concepts listed below.

Contact history

This is a record that a customer has received a communication (either inbound or outbound). Data on customer ID, communicate date, communication code, campaign code, communication status, channel code and contact group are implicated.

Response

This is a record that the customer has responded to a communication. There may be a number of responses associated with a single campaign communication. These responses may represent different stages in the sales cycle. Data on customer ID, campaign code, communicate date, communication code, communication status, response code, response date, response description, channel code, channel agent code, reason code are implicated. The reason code is used to monitor why a customer purchased or failed to purchase an offered proposition. Comments can be added as free text.

Maintain response status

The bank recognises that it may not always be possible to close the loop for a campaign. In this case, they require the capability to build and apply the response rule to the database, which updates the customer's response status. This requires the following functionality.

- Creating a response rule using a graphical user typeface (GUI) interface or directly using SQL or 4GL;
- Linking the response rules to one or

more communications within a campaign;

- Using a model as part of the response rule;
- Using any data in the data warehouse as part of the response rule;
- Supporting inferred and direct responses;
- Visually representing customer responses to campaigns; and
- Integrating response data into the customer profile to be used in different models.

This inferred response technique will be used to monitor campaigns where the closed loop is not in place. It is important that the bank will be able to understand the type of response measurement. The solution should also support external response files and the import of this data.

MONITOR AND EVALUATE CAMPAIGNS

The bank needs to be able to monitor the effectiveness of marketing communications at a programme, campaign, communication and segment level. The following core metrics will be required as a minimum:

- Total communication volumes
- Response volumes and values
- Total communication costs
- Total cost of managing response
- Total number of responses
- Total value of responses
- Total number of sales
- Total value of sales
- Response rate
- Conversion rate
- Cost per communication
- Cost per response
- Cost per sale
- Contribution
- Return on marketing investment

Table 4: Channel- and product-specific metrics for the campaign management solution

Channel	Metrics (minimum)
Call centre	Average call duration Average hit rate (number of times a call is made before customer contacted)
E-mail	Total volume of hard and soft bounce backs Total volume of opened email Number of clicks throughs
Product or service	Number of click throughs Total volume of credit usage Total amount of active accounts

(outward bound costs and response costs)

These metrics should be available at the campaign and communication level, and there should be a comparison between actual and planned data for the key metrics. In addition, a number of channel- and product-specific metrics will be required. These are listed in Table 4.

Generally speaking, the campaign performance reports will be updated on a daily basis. In the case of the performance reports for telemarketing these will be updated on an hourly basis as a minimum. It should also be possible to access information in the comments field as part of the analysis process.

The solution should support tabular and graphical presentation of data.

MANAGE THE ADMINISTRATION OF THE SOLUTION

The solution should provide a set of administration tools that can be used to manage the campaign management application and/or other components. These administration tools may be used by the marketing or IT teams, depending on the split of responsibilities. In both cases, the solution should provide a GUI interface that makes the process more effective. The following is a list of requirements the solution should provide:

- User definitions to be maintained
- Access to functionality to be restricted
- Access to data to be restricted
- Ability to support a range of security activities, eg audit users' use of system
- Scheduled tasks to be reviewed, amended, stopped, re-started, etc
- Campaign objects to be maintained (where appropriate this should be an automated task, eg deleting temporary database tables)
- Ability to view SQL logs for campaign tasks
- Ability to modify SQL logs for campaign tasks
- Ability to estimate time for task and time to complete task
- Ability to modify campaign object definitions
- Ability to integrate custom build applications into the campaign management environment and, where appropriate, call campaign objects or processes
- A development environment to build customised applications
- Ability to execute a campaign process from another application
- Good support for error handling and system recovery
- General system administration functionality
- Ability to check flow of tasks and status of jobs
- Ability for prioritisation tasks by users, campaigns, etc

MANAGING CHANNEL CAPACITY

The bank has a number of channels where there is limited capacity or where additional capacity needs to be requested well in advance.

These channels include: outbound telemarketing or call centres; inbound call centres; branches; and direct mail (because of cost issues).

There is a requirement to take the campaign plan and predict the volume of outward-bound communications by channel and the likely inbound volumes in the response channels. This information will need to be mapped against the available capacity by channel and any discrepancies flagged. It should be possible to share this information with the channel management teams.

When there is a gap in capacity, the solution should determine which customers should be contacted. This process should use the: business priority score to rank offers and statistical based optimisation. It should be also be possible to spread the workload over time.

The campaign management solution should allow the user to:

- Limit the volume of communications at a campaign or communication level;
- Allow customers in a target audience to be ranked by priority or business rules and then apply the volume limits as determined by the channel capacity; and
- Ensure that the 'best' communications are sent to the channel, thereby maximising the productivity of the channel.

The bank would like to manage the delivery of opportunities to channels more effectively. It would like the ability to set up business rules that determine which channel and

opportunities should be presented to a customer.

This allocation of opportunities to channels should be executed as part of the campaign process, not as a post-extract process. The business rules for channel allocation will need to support business based rules, customer preference and channel capacity. As a last resort, the bank would consider some form of conditional export that flags the customer opportunity suitability for a channel as part of the extract process.

CREATING AND DISTRIBUTING CUSTOMER INTELLIGENCE

Reports

A series of reports will be required to create a better understanding of customer behaviour.

Customer profile

These reports are used to understand the profile of the bank customer base and contain data on eg age, gender, marital status.

Segment profile

These reports are used to understand which customers are in what segment and segment volumes. For example, the number of active customers in private segment.

Segment migration

Where customers are segmented based on customer profitability, these reports are used to understand migration between the segments. As part of the campaign management system, the following types of reports will need to be created as a minimum:

- **Communications planning:** these reports are used to understand the volumes of communication that a customer has received over time (eg number of customers by volume of communications in month).
- **Response profiling:** these reports are used to compare the profiles of customers who have responded to marketing communications overall and by channels.
- **Channel performance:** these reports are used to monitor the effectiveness — eg average cost per communication by channel — of the various communications channels.
- **Budget variance reports:** actual versus planned costs for campaigns.

The results of some of these reports will need to be surfaced through the bank strategic performance reporting portal that is under development.

Other reports

In order to facilitate the sharing of information the reporting solution should also facilitate the following types of reporting:

- **Standard fix reports:** usually this kind of report is run at night and is ready in the morning.
- **Parameter driven reports:** for example, running a report on a specific campaign.
- **User-created reports:** user creates a report from scratch.
- **Ad-hoc query reports:** ability to insert queries to built-in reports.

Dashboard

This is a summary report presenting key metrics. In all cases it should be possible to share these reports with other parts of the bank business. It should be possible

to edit the reports using back door capabilities eg SQL. These reports may be grouped by branches or regions or by any relevant fields in the data environment. There should be the capability to export the reports to other reports environments.

Building and deploying behavioural models

The bank has been using behavioural models to target a number of campaigns. It would like to extend the use of these models across the various campaign types.

These will include models used to identify customers who are most likely to respond to up-sell offers (up-sell models). and to cross-sell offers (cross-sell models). In the medium term there will be a requirement to determine the optimal next product for a customer using a series of models such as churn models — used to identify customers who are most likely to cancel their current service; recovery models — used to identify ex-customers who are most likely to respond to a win back communication; time response models — used to identify the best time of day to contact a customer as part of telemarketing campaign; the customer profitability model; campaign response models — used to target individual high volume marketing campaigns, in most cases they will be used to reduce volumes and increase ROI; and channel preference models — used to identify the communication channel that the customer is most likely to respond to.

Communications with customers can request customers' preferences. This can be tested using a control and test group to understand their historical behaviour. (The test group can be used

to predict the outcome of rolling out the campaign to a larger audience).

It should be possible to use these models as part of the campaign selection process in either a static or dynamic manner. It should also be possible to use these or other models as part of a response management process.

In order that the business can create, validate and re-calibrate these models on a regular basis, much of the model development and maintenance will need to be semi automated. The campaign management solution should leverage the current investment in mining technologies where appropriate.

The bank will want to maintain a history of models scores. These will be used to monitor the performance of the models and to monitor changes in model scores over time.

OPTIMISING MARKETING CUSTOMER CONTACT

The bank is concerned that it is not making optimal use of available resources when managing customer marketing contacts. It has tried to address this issue using a combination of approaches, these include:

- **Global contact rules:** here the bank has developed a set of recency and frequency rules for communication that it uses to filter potential customer communications. This has been effective in protecting customers from excessive volumes of bank communications within a small time period.
- **Campaign level prioritisation:** the bank has established a set of business rules that are used to determine if a customer was eligible to be included in one or more campaigns and what priority the campaign would get.

- **Customer level prioritisation:** here the bank has been trying to refine the campaign prioritization process to take into account the customer's requirements.

In all of the above cases the approach ignores channel capacity and other business constraints. The bank is therefore looking for a vendor who can supply technology that would solve this business problem using some form of statistical optimisation, probably based on linear programming (LP) techniques.

The following functional requirements will need to be supported by the optimisation solution:

- Creation of optimisation scenario
- Definition of objective function
- Definition of constraints
- Channel
- Budget
- Contact rules
- Other
- Running optimisation scenarios
- Review of results of optimisation
- Deploying optimisation scenarios.

The primary input into the optimisation process will be a list of customer campaigns and response model scores.

DISTRIBUTED CAMPAIGNS EXECUTION

Due to growing demand from the branches, the bank is interested in running campaigns in a distributed model, ie each branch will be able to execute pre-defined campaigns locally from the branch or local regional headquarters.

The campaign will be created and controlled by the central team and the local branch users would be able to select a campaign and a few key attributes then schedule execution of the

campaign centrally or locally depending on the campaign type.

Examples of user defined attributes could include campaign type (cross selling, etc), time for execution and total amount of communication generated by the campaign. These branch initiated campaigns would be included in the campaign prioritisation process as per normal and would be monitored using the same metrics. There is also the need to allow branches the ability to modify central campaign lists prior to campaign execution, eg allowing a branch manager to remove customers from a campaign.

SUMMARY

The successful selection of any campaign management technology and its subsequent delivery is predicated on a clear understanding of business requirements. This paper describes a sample set of business requirements for a campaign management solution for a bank.

When developing requirements it is important to focus on the functionality that really drives business benefits and not what vendors are trying to promote.

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