Software review

Self-service delivery and the growing roles of channels

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Abstract There are few organisations that provide world-class customer service and even fewer that provide world-class self-service. There is little doubt that the future will see more organisations focusing on self-service, least of all because of the potential to slow down or stop the ever-spiralling costs of service provision. This paper explores a potential set of self-service objectives and strategies for an organisation. It then looks at some of the key components that need to be in place for effective delivery of self-service.

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INTRODUCTION

If I look at all the organisations that I have worked for over the years, few would I claim provide world-class service and even fewer world-class self-service. Those that I think do provide it, typically have the following characteristics.

- They fundamentally understand customers, their service needs and expectations.
- They focus on meeting customers' expectations as a minimum and in most cases strive to exceed expectations in key areas.
- They make the service interaction as personalised as possible.
- They provide the customer with service choice and do not force the use of specific channels.
- They are proactive in mitigating the drivers of service need.

- Providing world-class customer service is a core focus of the whole business not just the service department.
- They set targets and measure customer service experience with a view to continually refining and improving the processes.

This paper looks at some of the key components required to deliver world-class self-service. It is not meant to be fully comprehensive but focus the readers on some of the issues that need to be addressed.

SELF-SERVICE TACTICS

The following is a list of typical self-service objectives and potential tactics that an organisation could implement:

- Provide the customers with choice over how and when they can interact with the organisation

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- expand the range of service channels available;
- promote to the customer the features and benefits of new self-service channels.
- Provide the customer with the ability to perform any service transaction through any appropriate channel
 - expand the range of services and commerce transactions supported through existing and new self-service channels;
 - enhance the nature of the service transaction;
 - create unique service transaction types that exploit the special characteristics of the channel.
- Provide the customer with the ability to perform any service transaction any time of day
 - expand the hours of cover for live service support (24/7);
 - ensure self-service support available 24/7;
 - ensure quality of cover consistent regardless of time of day or day of week.
- Ensure that the customer experience is personalised at all times
 - enhance the live service environment to make available to the Customer Service Representative (CSR) data necessary to personalise the service transaction;
 - enhance the self-service channels to facilitate personalisation of the interaction;
 - expand the method of service delivery to meet preference of the customer.
 - language, for example mother tongue of customer;
 - nature of solution, for example text, sound, video.
- Reduce the average cost of supporting a customer service transaction
 - promote the benefits to the customer of the self-service channels and stimulate the customer to migrate to these lower cost channels.
- Generate incremental revenue from the customer interaction where appropriate
 - build and deploy a real-time offer environment across the live and self-service channels;
 - integrate the real-time offer environment with a campaign management environment;
 - personalise the offers across all service channels.
- Be proactive in addressing the key drivers of service interactions
 - monitor customer product and service experience and use data to trigger proactive service interactions;
 - ensure customer service requirements are embedded in the product/service development and marketing cycles.
- Understand and measure a customer's expectations for a service transaction type
 - implement Total Quality Management (TQM) methodology, for example Six Sigma and Voice of Customer
 - define key service transaction types;
 - understand customer expectations about service quality;
 - define measures for each service transaction type based on what is important to the customer;
 - set targets for service transactions;
 - monitor performance and refine processes.
- Ensure consistent and accurate execution of the service transaction
 - enhance knowledge base
 - technology
 - content
 - language capabilities
 - enhance knowledge base search capability;
 - provide appropriate access to knowledge base from service channels. Differentiate service where appropriate to align with customer expectations

- define service segments;
 - define service requirements by segments and then customer;
 - implement self-service environment in line with segment and customer expectations.
- Secure external recognition of world-class position in self-service
- choose recognised global third-party service standards, for example JD Power;
 - secure and sustain first in class position.

KEY SELF-SERVICE COMPONENTS

The following section of the paper documents key service components that could be used to support an effective self-service strategy.

The key components of an effective self-service solution include:

- service channels
- knowledge base
- search capability
- integration between channels
- integration with enterprise systems
- commerce
- real-time offer management
- measurement
- analytics

Each of these components is explored in more detail below.

SERVICE CHANNELS

In order to meet the different requirements of the customer and to provide choice, an organisation has to provide a wide range of service channels. The service request and response may or may not be through the same service channel. For example, customer places a request for information on a website and receives the response via email as a PDF attachment.

The following is a list of the channels through which organisations should as a

minimum support service and commerce transactions.

- Voice
 - inbound
 - outbound

Inbound voice is currently the primary channel used by most organisations to support service transactions. As organisations start to be more proactive in their customer service approach the use of outbound telephone is becoming more popular. In an attempt to drive down telephone costs, some organisations are starting to implement Voice Over IP telephony (VOIP).

- IVR
 - inbound
 - outbound

Inbound IVR is used heavily in those organisations that have significant call centre operations. Originally a tool to manage the flow of calls into the call centre they have evolved into service delivery channels in their own right.

Integrations with the call centre have improved over the years and it is now common for these technologies to facilitate the automatic presentation of customer data to the CSR. They are now heavily used to promote products and services including self-service capabilities as part of the IVR experience. A few organisations have even personalised promotional activities at the customer level.

As the IVR routing has become more complex we have seen the growth of voice recognition and natural language solutions that simplify the interface and remove the need for complex menus. The high costs and reliability of these solutions has meant that adoption has been slow but this is likely to change in the future as more organisations adopt this approach.

There is limited use of outbound IVR in most organisations for service. In some cases it has been used as a promotional vehicle for products and services and occasionally self-service options, but conceptually it could provide a valuable channel if used appropriately.

- Email
 - live
 - automated

Email has been used by customers for many years to communication with organisations, in many cases with service or commerce queries. Commonly a live agent responds to the query using the same channel or by call back to the customer. Those organisations that get large volumes of email service requests (eg commerce web sites) have implemented technologies to filter and route these customer emails. A few have integrated these email environments with service knowledge bases and facilitated automated response to service queries.

As this channel grows in importance we should see the increased use of automated email response management systems.

- Website
 - internet
 - WAP

Websites are the primary channel for delivery of self-service. This is the focus area for most organisations. In most cases these sites are accessed over the internet but as more and more mobile devices support data transfer via WAP and other protocols, more service and commerce transactions will be executed via this channel.

- Kiosks

The use of kiosks (ATMs) in the banking sector has been common for a long time but they have not really been common in other sectors. The last few years has seen

the launch of intelligent kiosks. Unlike most ATMs which are relatively dumb, these new kiosks use web internet technologies to make available the full richness of functionality that would be available to a customer on a self-service website.

These kiosks provide customers with access to web-based self-service capabilities when remote from their PCs.

The current models have tended to focus on a small numbers of transaction types (eg top ups for mobile phones) but this is likely to change as the technologies improve and self-service as a concept becomes more widely adopted.

- Chat
 - live
 - automated (Robots)

With the growth of instant messaging (IM) as a peer-to-peer communication vehicle, especially in the USA, a number of organisations have started to deploy chat solutions in service centres, initially to support communication between CSRs, but more recently to support communications with customers. Most have chosen for security reasons to deploy closed chat solutions, but some do allow customers to use commercially available IM solutions such as AOL and Yahoo Instant Messaging.

What they have found is that CSRs particularly those supporting technical questions can handle multiple queries simultaneously. This productivity gain is one of the reasons that chat is becoming quite popular in some countries.

The familiar, simple, real-time and two-way nature of the chat interface has meant that these solutions have now started to be used as interfaces into service knowledge management solutions, thus allowing automated response to service queries.

This channel is growing in importance.

- Video
 - live
 - automated

The use of video to support CSR communications with customers has not been very popular for a number of reasons. These include:

- high cost of cameras
- lack of technology standards
- implications for the self-service environments

This is, however, changing with the wider availability of:

- Broadband and PC-based cameras
- 3G phones with video capability

The popularity of YouTube.com is an illustration of the changes in consumer behaviour towards personal recorded and live video.

As the products and services that organisations supply get more complex, the nature of the customer service and commerce queries is also increasing in complexity. Some organisations are starting to use recorded voice and video as a way of addressing this complexity. It has the advantage that the customers can listen or view the response multiple times at their leisure.

The adoption of video as a tool to respond to product or service queries means that the underlying service knowledge base has to be able to store and deliver information in this format. Organisations in the media and entertainment industry, for example Sony, Apple and the mobile device manufacturers like Nokia, are pioneering this approach with positive feedback from customers.

- SMS
 - live
 - automated

The widespread use of SMS as a communication vehicle among consumers particularly in Europe means that it should be a natural communication channel for service

in the telecommunications sector but sadly this has not been the case. I think because it has not been a priority for the telecommunication sector. The focus has been on call centres.

Recent improvements in two-way SMS and the introduction of SMS robots which facilitate the automated response to customer service or commerce transactions should result in more widespread use of SMS as a self-service channel.

SMS should be an important part of any telco self-service strategy.

KNOWLEDGE BASE

The successful management of a customer service transaction is predicated on the quality of the knowledge base available to resolve the service requirement. In a live environment this has traditionally been the skill base of the CSR and the supporting knowledge management systems.

Knowledge bases need to be significantly enhanced if they are to support both the internal needs of the CSR and the customer.

In the case of the customer the knowledge base needs to be written in a format that can be understood by the target audience without live support.

Taking a knowledge-based design to meet the requirements of the CRS and then surfacing this to the customer will not work. It has to be built fit for purpose.

The knowledge base therefore needs to support:

- text data
- sound
- video

The knowledge base should also facilitate personalised response

- language
- skill level of customer
- channel for delivery

An effective knowledge management system is critical for the success of self-service within an organisation.

SEARCH THE KNOWLEDGE BASE

It is no use creating world-class knowledge base if the results of the search process end up with the customer or CSR retrieving the wrong answers.

The search environment should support a range of methodologies that include:

- natural language search
- case-based reasoning
 - query generates a solution set and a series of targeted questions to further narrow the problem definition. Based on these answers, case-based reasoning narrows and re-orders the answer in order of relevance
- decision trees
 - decision trees guide the user through a structured set of questions. After each answer the decision tree dynamically presents new questions and narrows the number of possible solutions until the most appropriate is identified
- expert modelling
 - Expert modelling systems rank potential solutions in order of relevance to the problem as determined by subject matter experts. Expert models define precise relationships between problem, causes and solutions
- learning algorithms
 - these are analytical techniques that are used to dynamically score and rank potential answers by on user popularity. In some cases the users can provide feedback on the relevance of the search outcome. This feedback is then incorporated into the search process.

This approach will allow multiple levels of guidance and allow users to select those techniques that best match their skills and preferences.

These search capabilities should be available for all relevant

- self-service touch points
- service transaction types

SEARCH COMMERCE ENVIRONMENT

In the same way as the effectiveness of search of the knowledge base is important for service transactions, search effectiveness is also important for self-serve commerce transactions.

The same range of search methodologies should also be available in the commerce environment. In this case, however, the search capability is applied to both the product catalogue and the knowledge base. The following would need to be supported:

- natural language
- case-based reasoning
- decision trees
- expert modelling
- learning algorithms

The search capability should also:

- offer multiple options;
- allow sorting by relevant catalogue attributes;
- filter out items, for example that are in the cart or not appropriate for the customer;
- integrate with the shopping cart.

In addition to meeting revenue objectives, the solution should allow:

- personalised offers based on interaction and customer history data;
- proactive marketing communications post transaction, for example cross sell or up sell.

OFFER MANAGEMENT

It is now common practice to use the live service environments to support:

- cross sell activities
- up sell activities
- retention activities

As organisations start to adopt self-service strategies the number of live service interactions reduces and as a consequence the potential opportunity for increment revenue falls.

The way many organisations have addressed this issue is by developing offer management systems that support cross sell and up sell as part of the self-service transaction.

The offer management solutions support the delivery of cross sell and up sell offers to the customers either:

- during the self-service interaction;
- after the self-service transaction.

In the case of the offers made during the self-service transaction there are three basic offer types:

- real time

Uses data collected during the interaction to determine the most appropriate offer

- passive

Uses historical customer data to determine the most appropriate offer

- hybrid

Uses a combination of data collected during the interaction and historical customer data to determine the most appropriate offer.

The type of data available during the interaction will vary depending on the service channel that is being used.

The offer decisioning process can be based on:

- rules
- model scores
- statistical processes (predictive models or optimisation)

In each case one or more offers is made available to the customer either at the start, during or after the self-service transaction.

These solutions normally require tight integration between the following systems:

- Real-time offer management system
 - determine the most appropriate offer;
 - create link with content for offer.
- Campaign management
 - define the passive offers and maintain reference data.
- Data warehouse
 - store customer history data;
 - monitor offer performance.
- Self-service channel
 - delivery of the offer;
 - recording the outcome.
- Content management
 - maintain the content used for the offers.

In the case of the offers made after the self-service transaction, the self-service event and the outcome act as a trigger for an offer communication. These communications usually are managed through a campaign management environment.

INTEGRATION WITH OTHER CHANNELS

Each service channel has advantages and disadvantages. To create an optimal self-service environment it should be possible for the customer to move between the channels as and when they need to.

This means that the channels have to be integrated not just with the knowledge base but other communication channels used by a customer during a service or commerce transaction.

In most cases the requirement is normally to move closer to live support.

In some cases the CRS is able to support the customer through the service or commerce transaction. At the moment most organisations focus on agent-assisted service in the web channel, but it is likely that as technology improves that this assisted

capability will be available through other channels.

The most common channels for agent-assisted service are:

- voice — live
- chat — live

INTEGRATION WITH ENTERPRISE SYSTEMS

In order for customer service and commerce transactions to be effectively supported in a self-service environment, there needs to be tight integration between the service channel and the enterprise systems. In particular, there is normally a need to integrate with the following types of systems:

- ERP (Provisioning)
This integration is concerned with allowing a customer to:
 - purchase a product or service;
 - modify a product or service;
 - understand the status of an order
- Billing
This integration is concerned with allowing a customer to:
 - view a bill;
 - modify personal details;
 - make a payment;
 - download information;
 - set up alert service.
- CRM
This integration is concerned with:
 - keeping a record of the self-service and commerce transactions;
 - making cross sell and up sell offers to the customer (via campaign management and real-time offer management solutions).
- Data warehouse
This integration is concerned with:
 - monitoring self-service activities;
 - monitoring service performance (targets and actuals);
 - monitoring cross sell and up sell activities;
 - predicting behaviour.

- Content management

This integration is concerned with:

- managing digital content as part of the knowledge base;
- managing digital content as part of the real-time offer management.

This Enterprise systems integration is in addition to integration to the knowledge management systems.

MEASUREMENT

In order that an organisation can effectively manage the provision of service and in particular self-service, the necessary measurements systems and processes need to be put in place.

This has been an area where many organisations have failed as these measures have focused in the main on the internal organisation and not the customer. To be truly effective the measurement systems and processes need to focus in the main on the customer.

OVERALL CUSTOMER SATISFACTION — NET PROMOTER SCORES

The second area that has seen some changes is the measurement of customer satisfaction. In many cases organisations are finding that the current tools do not provide a sensitive enough or simple enough model. As a result Customer Advocacy measures are gaining in popularity.

The basic premise with this approach is that the only thing that you need to know is:

- Would a customer recommend you to a friend?

The measure is called Net Promoter Score. It is the

- percentage of customers that are promoters of a brand or company minus

the percentage of customers that are detractors.

Studies have shown that organisations with a high net promoter score consistently secure the lion's market share of industry growth.

The basic approach involves:

- surveying customers (score 1–10);
- calculating the net promoter score;
- analysing customer segment and internal organisation against the score;
- implementing programs to improve the score.

PROCESS MEASUREMENT — TQM

A common approach that is becoming more popular, particularly in the US, is the use of structured methodologies such as Six Sigma or permutations of it and Voice of customer.

There are two key concepts that underpin these methodologies:

- understand customer expectations of the processes;
- manage processes.

The following activities are typically implicated:

- define key service transaction types by channel;
- understand customer expectations about service quality;
- define measures for each service transaction type based on what is important to the customer and the business;
- set targets for service transactions;
- implement process or process changes;
- monitor performance and refine processes.

OFFER MANAGEMENT

As the complexity of the offer management environment evolves with the adoption of self-service, it becomes even more

important that the appropriate feedback and measurement systems are in place. These tools are then used to facilitate the management of the incremental revenue from the offers made to customers either through the self-service environment or after a self-service transaction.

In order to effectively manage the offers the solutions should:

- cover all transaction types;
- cover all channels;
- provide a range of metrics (some common, some channel specific);
- delivery to the business in near real time.

This information should be used in conjunction with other data from:

- predictive analytics
- web analytics

to manage the delivery of offers to customers.

CONCLUSION

Self-service environments will become an important part of the delivery of world-class service in the future. There are a number of key components that are essential for the delivery of effective self-service. These include:

- access to self-service through a wide range of delivery channels;
- a comprehensive, dynamic knowledge base that can deliver response in a wide variety of formats including, text, video and sound;
- a comprehensive search capability of the knowledge base that is available through all the service delivery channels;
- integration across the service delivery channels that ultimately will allow customer-driven access to live agent;
- tight integration with enterprise systems to facilitate the widest range of service and commerce transactions;

- effective personalised real-time offer management to optimise revenue generation from the interactions;
- comprehensive measurement of the self-service and offer management processes;
- effective analytics to drive the targeting of the cross sell, up sell and retention offers as part of the customer interaction.

There are other issues that need to be addressed not least the marketing, cultural and organisational implications of the delivery of any self-service environment.

There is little doubt that the future will see more organisations focusing on self-service, least of all because of the potential to slow down or stop the ever-spiralling costs of service. I, however, believe that the real value of self-service is in its ability to deliver more choice to the customer, which is never a bad thing

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