An Insight to CRM eBusiness Solution

KEYWORDS

Chittaranjan Behera

ABSTRACT *CRM-eBusiness is a phrase most commonly used to describe electronic business that reaches out to a larger audience of customers than before. According to a popular e-commerce online journal(techcrunch.com), the global E-commerce market would grow a total of around $963 billion by 2013, a 19.4% CAGR from 2010 to 2013. Keeping this in mind delivering quality solution on time will be the key differentiator to help beat the competition across competitors.*

e-Business does comprise of its own impenetrability though. It is a lot more complex than what people think it is. Customers are not what they used to be. Today's customers are a lot more knowledgeable and well-informed about the global trends to get the best of what their needs are.

Anyone can walk on a rope with a little balancing act, some can even walk while they are blindfolded. But CRM requires the whole company to work together to keep the right balance of customer demands while still walking on the rope. CRM software helps manage customer interactions of all types.

To get a right blend of testing, the organization needs to know all the flavours of CRM functionalities in the customer service cycle: Marketing campaigns, telemarketing, telesales, quotes and order configuration. The person who reads this paper can leverage on it to provide:

- *The e-Business Architecture*
- *Testing arena of e-Business CRM*
- *What it takes to test an e-Business CRM application*
- *Challenges faced in testing an e-Business CRM solution*
- *Our Practices*

1 Introduction

CRM-eBusiness is a phrase most commonly used to describe electronic business that reaches out to a larger audience of customers than before. The term electronic business has been perceived as one buzzword on the internet since it was first introduced by IBM in 1997, However, many experts agree to use the word 'e-business' as an definition to a set of automated business processes that is constructed on certain electronic networking technologies such as the internet.

2 e-Business Architecture

Today we have entered an arena where we need to integrate different business functions, which symbolizes the foundation of e-Business. At the core of this lies application modularity: Fabricating a complex service process from smaller subsystems that can be designed independently but yet remarkably works as a whole. Clearly the trend in e-Business is towards software-enabled process support which can be realized by fusing together multiple functions into a compilation of a well-orchestrated framework. A very good example would be how the sales function is integrated with customer service and marketing functions to form Customer Relationship Management solutions.

Business decision-makers are increasingly appreciating the thought of integrated architecture in servicing the customers. As these disparate processes are integrated the companies transform themselves from an isolated shape to a process centric organization. This idea was first applied in the manufacturing and order fulfilment functions, now found in sales and customer service.

3 Growth of CRM

Time and again traditional business methodologies have proven tedious, costly and awfully time consuming. As a re-

sult businesses have been seeking for a better solution. CRM e-Business solutions have proven to be just the right strategy that was required. It caters not only to the existing business problems but has also proved that it has the potential to deal with prospective difficulties as well. Flexibility and the ability to adapt to a changing environment is what CRM e-Business strives at.

What drives e-Business CRM architecture is:
- Rapidity of e-Business is increasing. The accelerating force to market is critical for acquiring the right opportunities at the right time.
- The new paradigms of e-Business are fading the enterprise boundaries making way for the cross application architecture.
- Prospects for technology solutions are increasing. Every customer, employee, manager and other stakeholders expect more and in a short span of time.
- Improved Customer service and quality of deliverables through enterprise wide applications.
- Developing the applications not only at a good pace but also cost effective and reliable.

e-Business requires a plate full of: Business and customer focused applications, applications that are proactive to the changing needs of the customer, applications that are in sync with business support objectives and applications that give prominence to business expertise.

4 Kick starting eBusiness-CRM

What is it that sets the skillful minority of successful e-Business companies apart from the rest? The successful organizations have understood the importance of how to deal with the technical and market improbability. That indicates that these organizations have clearly understood how to over-

come the commotion in their e-product- development process by adopting the application frameworks that help integrating all disparate modules.

5 Testing arena for e-Business CRM
Figure 3 will give the testers an idea on how to decide what the target areas are and where is it in e-Business CRM that we need to test. The CRM testing can be viewed from two different angles the target points which could be the front office and the core functionality that can be at the back office of a CRM infrastructure.

We can also see the integration of the back office and the front office as the third dimension to testing the application. The initial focus in CRM testing is always entirely on the front office. This is not a bad start as you could improve the performance in this domain but in the long run this is not optimal. Any organization that is performing CRM testing properly must integrate the front office, back office and the analytical systems.

Figure 3 gives a good idea on what comprises the front office and back office that requires testing and also the channel on which it travels back and forth between front office and back office.
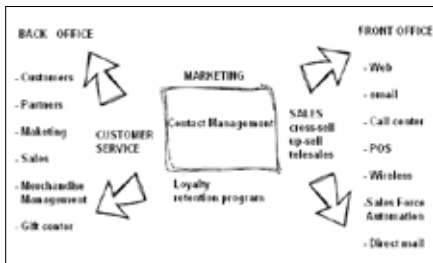

Figure 3: e-Business CRM testing arena.

6 How do we test the e-Business CRM applications?
To get the right blend of testing, the organization needs to know all the flavours of CRM functionalities in the customer service cycle: Marketing campaigns, telemarketing, telesales, quotes and order configuration.

Testing e-Business CRM addresses all your front office needs, including customer service, field service, sales and marketing. We can divide the testing of e-Business-CRM into three distinct phases
• Acquiring
• Enhancing
• Retaining

As we go through each phase there is amplified relationship and understanding between the organization and its customers. Each of these phases have a distinct impact on Customer Relationship and each fastens your organization more closely to your customer's life.

Figure 4 demonstrates how the e-Business CRM's three phases have a different approach towards seamless customer service.
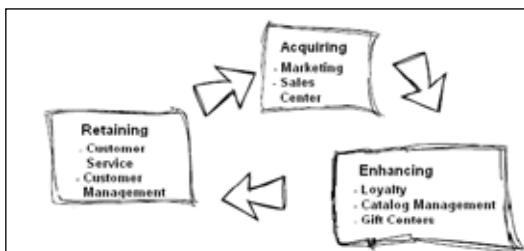

Figure 4: The three phases of eBusiness-CRM.

4 .1.1 Phase I - Acquiring new Customers
Testing a new business relationship is like surfing a new web site, where the user does not know what the features are and what the compatibilities are while browsing. There is a varying degree of anxiety, fear and anticipation of what is available on the website being viewed. Such is the case while testing features on an "e-Business portal for acquisition of new customers".

May it be a shopping cart website or any website which the prospective customer has an interest in. How mysterious would it be if the organization hosting the e-Business portal has tested for features wherein: when a customer visits the site and chooses a brand that he/she is interested in, fills in the online request form and clicks on the submit button. All of a sudden the customer hears a phone ring or a message pop up by a customer service representative. "Hi this is your representative. I just received your request. Would you like me to walk you through the salient features of the product and give you a demo for the same?"

This instantaneous response would be the product of a well-planned and finely tuned strategy of sales and service integration testing. Such test cases to test the integration of sales and services would not only give a boost to the sales but would also attract more prospective customers to have a look at what is in store for them.

4 .1.2 Phase II - Enhancing Existing Relationships
In a scenario where a doctor examines the patient and is not able to determine the reason or the cause of a disease, the doctor does not give up until he has conducted all possible tests and consulted other specialists. The result is a more satisfied patient knowing the exact cause of his disease. Similarly companies need to develop a right testing strategy to focus on seamless customer support until all the concerns of a customer are heard.

Let's take an example wherein the customer logs in and requests for a chat support on an e-Business portal. As soon as the customer asks about a product the service representative offers a complimentary product - a practice known as "cross-selling". The testing of such a scenario would involve "if the service representative has an access to all the products that can be offered on a complimentary basis and if he does not, is there a possibility of giving a discount for the same".

There is also a possibility that the service representative offers a similar product of better quality - a practice known as "up-selling". In this case, testing of such a scenario would involve "if the service representative has an access to products with similar configuration, keeping all the customers' needs in place".

By testing a cross-selling or up-selling practice would definitely offer a high quality customer service which would differentiate the organization from its competitors.

4 .1.3 Phase III - Retaining Customers
For a customer to continue subscribing to the same newspaper every day, the news agency needs to have a solid knowledge of what its readers want and what are the continuous changes a reader would expect. Just as a news agency needs a complete understanding about its customers so does a business organization. Retaining customers involves a determination from the organization's end to stay in the relationship irrespective of the hardships faced.

If an organization wants to test a similar retention how would it do? Sounds absurd testing retention? How would any organization test this?

Let's look at a scenario where in the customer has logged into our web portal for the third time in a week and is planning to purchase yet another product .Would it not be interest-

ing if at the very beginning as the customer logs in he/she is offered a loyalty. The testing of an instance like this would involve many questions: "How many times has the customer visited the portal? How many purchases has he made? What is the total price involved? What is it that the customer was interested in? And to retain the customer the most important question would be: What is it that the portal has in offer for the customer as loyalty: reward points that can be redeemed, discount coupons, a complimentary gift or a gift cheque.

Customer retention and the testing that revolves around it is increasingly a focus on getting the customers and not loosing them.

7 Challenges faced in testing an e-Business CRM solution
In this section we will look at some of the challenges faced while testing CRM from the back office and the front office perspective. The challenges can be broadly classified into:

1. Challenges in testing the front office
- **Analysis & Identification of test data**
- **User Profiling**
  o Demographicdetails
  o Ethnographic details

- **User experience**
  o Ajax
  o Contextual personalization
  o Mobile
  o Web 2.0

- Content Management
- Performance
- Security

2. Challenges in testing the Back office
- Integration with suppliers and partners
- Validation of data
- Data/Information Processing & Reporting

3. Challenges in testing the Integration layer
- Front office to back office
- External interfaces

8 Our Practices and recommendations
Below are the best practices while testing the e-Business CRM application.

1. The first and foremost would be identifying the CRM processes that your client desires. Examples would be loyalty and Customer service.
2. The next step is to come up with a common set of functionalities that are relevant to the selected process. This would also involve pursuing a thorough study on the functionality from all possible resources. A good example would be taking up a process, say loyalty, and looking at the functional test areas such as signup, reward points, referrals, points redemption, and privileged customer identification and so on and so forth
3. Now that the foundation has been built you can create a checklist of key focus areas that your business process demands.
4. Once the checklist is ready we can fine tune the list by adding business process around each focus area .For example, the member sign-up in a loyalty program would have a set of high priority customers who have an added advantage as compared to the regular customers signed up for the same program.
5. The final step would be to build the test suite and add test cases for each process that could be reused and customized based on the client's requirements.

This would not only help in saving the tester's time but also add value to the e-Business CRM process being tested. The checklist would form a reminder to the tester of every possible functionality that is associated with the process being tested, on a whole saving a lot of effort and cost involved in testing the e-Business CRM process.

9 Conclusion
After going through the above notes on CRM eBusiness, it can be cluded that eBusiness organisation focus on the decreased general sales and marketing administrative cost by having specified and good knowledge about its target segment customers and there by using their resources better when no effort is a waste of money or time.AlsoeBusinessorganitations focus on the resuced cost of sales and increased sales representative productivity by utilize new technology to lower the cost of deploying sales automation solutions and by tracking and quoting customer data with integration of sales capabilities across the organition,

Before we conclude, we would like to highlight the below key takeaways, before one could start thinking about the type of testing, test coverage, metrics, Go-No Go criteria etc.

- Client Business Drivers
- e-Business Model
- Target market
- Product and service offering
- Architecture and technology

A proper understanding of your client and their business, complemented with good test strategy will help you identity defects at a much earlier stage in the development lifecycle. Issues will get addressed in right phase at the right time and with the right solutions. The end result delivered will in no doubt bring your client and their e-business definite success!!

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