

Marketers' Needs From E-commerce

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Preamble :

With the advent of a completely new way of buying and selling through e-commerce, the world today is poised to redefine and reformulate various management practices so that the new technology can be effectively used. This paper attempts to look at what the marketer wants in order to formulate their strategies for selling and how E-commerce technologies are placed / developed in order to meet their wants.

Activities on the Internet :

Let us start by looking at a typical storefront and the related front end, operational and backend activities that constitutes the major portion of the business in the physical world. At the same time let us examine if and how the activity can be translated into a virtual activity through a website on the internet. Table-1 attempts to describe this translation.

Table-1

SNo	Physical Activity	Virtual Activity	Technology
1.	Enter the Shop	Enter the web site (E Commerce First Page to be displayed on the visitors browser)	HTML/ASP etc. Technologies can be used
2.	Ask for location of a product you wish to buy. (Physical location of let us say Menswear).	Navigate to Menswear by clicking on a link provided on the First Page.	-- do --
3.	Pick up your shopping basket and move physically to the menswear location.	Shopping Basket is automatically created.	ASP/CGI PERL, Java / JSP
4.	Ask for various clothes specifying measurements etc. and select as per salesman's reply and/or your judgement. Place the selected item into your shopping basket.	Select sizes and add to shopping basket.	RDBMS : Oracle / Access / MySQL, Asp etc.
5.	Seeking your reactions the salesperson will help you by offering either a) a costlier product (Upsell) b) a matching product (Cross sell)	Cross Selling and Upselling scripts can be inbuilt in the site.	VbScript, ASP HTML Java Applets etc.

S.No.	Physical Activity	Virtual Activity	Technology
6.	If during your shopping session you decide that you do not wish to buy any selected product, you will simply remove the item from your Shopping basket and place it back on the shelf.	Here also you will be given an opportunity to virtually remove your choice in the shopping basket.	ASP/DMBS etc. -- do --
7.	Continue shopping by moving through the shop and selecting products into your shopping basket.	Continue shopping by moving through various pages of the site by pressing the appropriate links.	This is the additional step in virtual shopping and can be extended to tracking the status of your order.
8.	Move to the exit counter. The Cashier will prepare bill of items selected.	Your bill is being automatically generated alongwith every item you place in the basket.	
9.	Pay cash Pick your purchases and move out of the shop.	Fill a form, which will at the minimum ask for your name and shipping address, your credit card information. Press OK and wait for your purchases to be delivered to your shipping address.	
		The shop receives confirmation electronically about money credit and then transports goods through a courier agency like Fedex, UPS etc.	

Market Analysis Requirements :

Table-1 summarizes the activities that a shopper does. However the shop owner has to on a regular basis think in terms of stock replenishments, ordering quantities, sales promotion and finances. In the physical world this translates down to Daily sales reports, Sales Ledgers (showing balances), exception reports like reorder level reports etc. which then triggers off an action by the shopkeeper.

Added to this the shopkeeper has to think about ways and means of increasing his sales and consequently his profitability. Marketers will use various models in order to analyse and then devise various strategies to achieve the above. In the physical world this may translate into categorizing all shoppers (read visitors) and measure significant things that they do in the shop. Promotions could be devised and implemented based on this and

other related factors. Measurement of these promotions would lead to improvements in the advertising effectiveness, cross sells, upsells, purchase rates and shopper loyalty.

However on a web site the requirements may change, because here the opportunity of tracking effectiveness of promotions in real time and making adjustments almost instantly is very much possible. This possibility is acting as a fuel to develop new generation website analysis tools that represents behaviour in terms that marketers understand.

A website has a lot of traffic if the products

are selling. If they are not selling so well then a needs driven approach to network traffic analysis has to be done. And even if they are selling well then also progress is needed. Since E-commerce marketers want the company to make more money it is therefore evident that the best marketing reports are those which reveal whom the money comes from, where the money comes from and what marketers can do to improve the revenues. By using this information the marketers can, amongst others, increase advertisement on those websites which reach the most interested people, offer better service to their most valuable customers or provide a better product selection for different types of visitors.

Table-2

S.No.	Marketing Event	Example
1	Ad Click	Suppose Mr. Rao while on the site www.abc.com clicks on an Ad of www.jeans.com and arrives at www.jeans.com the e commerce engine will generate an "Ad click" event with reference to the ad campaign and referring site www.abc.com.
2.	Promotion view	At www.jeans.com Rao clicks on faded blue jeans and is presented with salient details of this jeans, the e-commerce engine will generate a promotion view
3.	Product Navigation	If Rao continues to see other varieties in the products the engine will report Product navigation
4.	Detailed Product View	Before making a final decision to buy these faded blue jeans Rao asks to see the detailed specifications and other pricing, shipping details etc, a Detailed Product view event is generated.
5.	Shopping cart insert	After having decided to buy this jeans Rao adds it to his shopping cart and the web engine reports a "Shopping cart insert" Marketing event.
6.	Shopping cart delete	However while continuing to shop on the site if Rao decides not to buy this faded blue jeans, he will then remove it from his basket and a Shopping cart delete" event will be recorded.
7.	Upsell view	If the engine finds that when the website presents another similar higher costing jeans (this is normally done whenever hesitation in selection is noted) Rao clicks to see it, an upsell view event occurs.
8.	Upsell click	If at this stage Rao decides to see further details of the jeans being advertised he clicks on the Upsell view and an "Upsell click event" occurs.
9.	Shopping cart checkout	Finally when Rao Presses the ORDER button and moves out of the site a "Shopping cart checkout" Marketing event is reported.

E-commerce monitors are available which monitor the visitors' interactions with an e-commerce site. Marketing Events, (Table-2) like the visitors' interaction with advertisements, promotions, detailed product views, purchases and shopping cart interactions can be monitored by hooking on to one of the available e-commerce engines. The only problem with this is that these engines are highly costly.

In E-Commerce terminology the time spent shopping by a visitor from one entrance to the site

and exit is called a Session. Whatever occurs during this session is important to the marketer in terms of the significant marketing events described above. The marketer may have advertised his site by putting a link on various websites on a payment basis. Success of the advertisement vis-a-vis the referring site has to be measured by various ratios. For example "conversion rate" refer to the ratio of marketing successes (Purchases made) to marketing attempts (Ads/Banners displayed).

A typical report format is as shown in Table :

Table-3

CAMPAIGN CONVERSIONS							
No.	Sources	Sessions	Sessions with Views	Sessions with Check out	Session Con- version rate	Sessions with upsell views	Sessions with upsell clicks
01.	Abc.com	100	75	50	50.00%	30	10
02.	Def.com	150	46	30	20.00%	12	4

The "**Sources**" column contains the name of the ad campaign driving the visitor to the site.

The "**Sessions**" column shows the number of visitors directed from a particular ad campaign.

"**Sessions with Views**" indicates the number of visitors clicking to see detailed information on a product.

"**Sessions with Checkouts**" is typically a marketer's ultimate goal : driving online purchases.

"**Session Conversion Rate**" means the ratio of checkouts to sessions.

Visitors Behaviour Modelling :

It is now important for the marketer to want a report on the visitors' behavior i.e. they must know who visited, where he came from, what he/she did on the site and why they left. Marketers are fond of categorizing (Category modelers) according to

demographics or psychographics so that they can sort the data by visit frequency and draw inferences. The needs of the marketers normally are as summarized below:

- a) **Who visited?** : This means visitor categories sorted by visit frequency.
- b) **Where did they come from?** : They came from either Ad campaigns or inbound hyperlinks sorted by visit frequency.
- c) **What did they do?** : Content category, for each visitor category, sorted by page view frequency.
- d) **How did they use the site?** : Traffic patterns, next-click or previous click from each page sorted by frequency.
- e) **Why did they leave?** : Exit pages for each visitor category, sorted by visit frequency.

Raw events normally represent visitors and content on the website. From these raw events, the modeler can generate Statistical relationships such as (content-category, visitor-category, count, time-span), which reports the most frequent visitors to a set of Webpages by demographic classification. Some relationships are less obvious, such as (page, next-page, count, time-span), which reports next-click and previous-click statistics from each page.

A small combinatorial explosion occurs if you try to generate all the possible relationships, so all Web-traffic analyzers limit which relationships can be generated. To provide flexibility to SQL-savvy marketers, many traffic analyzers provide for data export.

Conclusion : Within the marketing world, there are many possible goals for traffic analysis, so deciding what to measure is especially important. You can compare ad campaigns to emphasize the most effective. (Does "effective" for you mean more click-throughs, more loyal visitors, or more purchases?) You can determine the most popular areas so that content can be improved. (How do you know your

content is "improved"? Do you get more page views, purchases, or more people filling out an evaluation form?) You can get visitors to stay at your site longer by providing more next-clicks of strong interest, by reducing stop-requests, or by identifying "popular" exit pages and adding attractive hyperlinks to other parts of the site. (But is there a good marketing reason to simply keep people on your site?) All of these goals should be part of a marketing plan for your Web site. E Commerce technologies are certainly quite developed to provide support for gathering relevant data and analysing them for the marketers through certain well thought out algorithms.

With E-commerce expected to account for one third of the world's business transaction by the year-2002 according to Forester Research, it is evident that marketing management in our country should seriously start considering and learning this comparatively new way of doing business. During year 2003 e-commerce sales of \$ 1.7 trillions are expected in USA and \$3 trillions world-wide. The same source estimates the sales figures for year 2005-2006 to reach \$13 trillion worldwide.