

# Visit Duration and Consumer Preference toward Web Portal Content

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## INTRODUCTION

A Web portal possesses a number of unique advantages. Discussion of these advantages centers on improved information access via either customized access to selected information sources or through the improvements brought about by content management applications. A Web portal can provide functionalities that customize and personalize information flow to the Web surfers (Hoffman & Novak, 1996). In addition, it not only serves as a traditional advertising media, but also as an integrated marketing communication tool (Bush et al., 1998). Although it may be seen as an exciting tool of this kind, its effectiveness in terms of consumer engagement and persuasion has yet to be demonstrated empirically (Bezjian-Avery, Calder, & Iacobucci, 1998).

To date, consumer behavior on the Web portal has been examined to assess whether Web portal marketing communication has been *effective*, but further empirical study is required to establish whether evaluating that effectiveness on the basis of Web portal consumer behavior is in fact a *valid* form of measurement (Bucklin & Sismeiro, 2003). Specifically, it is not clear whether an increase in visit duration corresponds with an increased positive attitude towards a Web portal site, that is, whether more time spent on a site, is an increasingly favorable reflection on its content (Balabanis & Reynolds, 2001). Some researchers argue that consumer browsing experience and involvement with a Web portal site affect visit duration (Bucklin & Sismeiro, 2003). In addition, the nature of Web browsing mechanism, such as a cache, proxy, and dynamic IP might give rise to the undercounting problem of visit duration (Berthon, Pitt, & Watson, 1996). *Therefore*, validating the effectiveness remains impossible until Web behavior measures, such as visit duration, can be empirically proven to represent consumer attitudes. Until then, relying on such measurement is only conjecture.

The objective of this research is to determine whether visit duration serves a proxy of Web surfer's preferences towards the Web portal content. An individual-based brows-

ing behavior tracking methodology is employed and a set of experimental Web pages were designed on the theoretical basis of conjoint analysis to accurately measure visit duration by individual consumers. We will begin by examining various ways of measuring Web portal consumer behavior. Next we will consider the importance of content on the Web portal. An examination of this relationship may answer the question of whether visit duration is indicative of marketing effectiveness on the portal. The marketing effectiveness variable under consideration is portal content, with site design operating as a control variable.

## BACKGROUND

### The Association between Web Portal Behavior and Consumer Attitude

With traditional advertising, marketers measure two aspects of effectiveness, consumer behavior and consumer attitude (i.e., psychology). Behavior is measured through impression, reach, effective reach, frequency, effective frequency, cost per millennium (CPM), duplication, gross rating points for overall media reach/frequency analysis, and attitude through recall, checklist, brand attitude, purchase intention, recall, and over time. This task is accomplished by self-report style questionnaires or by focus groups, as listed in the meaning and measure sub-columns shown in the *Measuring Advertising Effectiveness in Traditional Media* column of Table 1.

In recent years, industrial and academic researchers have identified a number of variables for Web behavior measurement. These include exposure (CPM and flat fee), click through rate, interactivity, and outcome variables for banner advertisements and target communication. Such measures incorporate the price structure of Web portal based advertising (Novak & Hoffman, 1998). Currently, exposure models, based upon CPM or flat fees applied to site exposure or banner advertisement exposure, are the prevailing approach in

*Table 1. Measuring the effectiveness of marketing communication in traditional media and in the Web portal environment*

Measuring Web Portal Behavior					Measuring Advertising Effectiveness in Traditional Media	
Conversion Process on the Web Portal (Berthon et al., 1996)		Web Advertising Hierarchy of Effect (Hoffman & Novak, 1998)			Hierarchy of Effects (Lavidge & Steiner, 1961)	
Meaning	Measure	Meaning	Measure		Meaning	Measure
Surfers	Awareness Efficiency	Awareness	Exposure	Flat Fee Click-Through	Awareness	Gross Impression Reach Effective Reach Frequency
Aware Surfers	Locatability/ Attractability	Passive Interest				
Hits	Contact Efficiency					
Active Visits	Conversion Efficiency	Active Interest	Interactivity	Visit Frequency Duration Time Browsing Depth	Knowledge Liking Preference Belief	Effective Frequency CPM Duplication Gross Rating Points Recall
Purchases	Retention Efficiency	Purchase	Outcome/ Performance		Purchase	Checklist
Repurchases		Retention			Repurchases	Brand Attitude, Purchase Intention Recall Over Time

Web media pricing. Fees based upon the click-through rate are also in use. Here the advertiser pays for actual clicks on a banner advertisement that leads to the advertiser's target advertisement. In addition, interactivity measures are based upon the time spent viewing an advertisement, the depth or number of pages of the target advertisement accessed or the number of repeat visits to the target advertisement (Ghose & Dou, 1998). Outcome measures focus on the number of purchases made (Moe & Fader, 2001). As for the relationship between Web marketing communication and Web portal consumer attitude toward site content, Berthon et al. (1996) proposed a Web portal site efficiency measure and a comprehensive conceptual framework of marketing communication on-line. In that framework, five measures of Web portal marketing communication based on certain Web portal behavior variables are defined, a summary of which is given in Table 1. As the table shows, those measures are similar to the four measures proposed by Novak and Hoffman (1998).

## Visit Duration and Consumer Preference

For marketers, a message delivery strategy intended for consumers needs to consider the information content of the communication and the creative form of the message. Most of the literature exploring the effectiveness of Web portal marketing communication focuses only on the creative form of the Web portal rather than on its content (Bucklin & Sismeiro, 2003). The difference between exposure, click-through and interactivity depends on the content of the Web

portal pages, and not only on the creative form. It is more meaningful to measure the effectiveness of Web portal marketing communication based on interactivity measures of Web portal consumer behavior rather than on exposure or click-through (Novak & Hoffman, 1998). Novak and Hoffman's (1998) definition concerns interaction, based on the time spent viewing an advertisement, the depth or number of pages of the target advertisement accessed, or the number of repeat visits to the target advertisement. In Berthon et al.'s (1996) research, a visit compared to a hit implies greater interaction between the surfer and Web portal pages. It may mean spending appreciable time, in completing a form, querying a database, and requesting further information. However, some researchers argue that visitors spend less time per Web portal visit session because they are familiar with the Web portal site (Johnson et al., 2003). In addition, Bucklin and Sismeiro (2003) suggest that page visit duration is affected by the visitor's involvement and time constraints. Therefore, whether increased visit duration corresponds with increased positive attitude towards a Web portal site requires more empirical evidence.

## Method of Measuring Web Behavior

While measurement in traditional advertising is conducted by self-report style questionnaires, measurement of Web behavior is conducted by server-centric and/or client-centric consumer behavior measures. The server-centric measurement technique, Web traffic analysis, analyzes server log files that record user browsing activity. A browser requesting a

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