

ASSESSING THE EFFECTIVENESS OF WEBSITES AS AN INTERACTIVE BUSINESS COMMUNICATIONS TOOL

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For any business to be able to sell their brands, for example a product or a service or to increase their organization's recognition amongst consumers, some form of communication with an audience must take place. This communication can either be business-to-business (B2B) or business-to-consumer (B2C). Generally the objective would involve a business marketing their brands or themselves in the expectancy of performing a business transaction for a profit.

The Internet has the capability to bring the relationship between a business and a consumer closer together. For contracting organizations it is an opportunity to increase company and brand awareness by making information available online in a practical and appropriate manner to a global audience. This then becomes a contractor's first act of e-business, the process of doing business using electronic, rather than traditional media.

This paper will describe the process of assessing the effectiveness of websites as an interactive business communications tool. It will explore issues such as effectiveness criteria, target audiences, good design practice, efficiency of back office systems and content provision.

Keywords: contracting, e-commerce, e-marketing, internet, website.

INTRODUCTION

Websites are more than a shop window for a construction business. If designed and managed effectively, they are an opportunity to create a powerful brand and sustainable stakeholder loyalty. The company website has to be viewed as part of a strategic cybermarketing (Bickerton *et al.* 2000) plan. Much of construction would seem to fall within the b2b e-commerce marketplace, but a considerable section of the Industry i.e. property development or homes may also learn from successful business-to-consumer (b2c) approaches.

As with any on-line business marketing, cybermarketing or e-marketing applies the basic principles of marketing but utilizes non-traditional approaches. The use of Internet technology has expanded rapidly, computers are becoming faster, software and speeds of connection are more sophisticated (Tapscott 1998). However, these technological improvements are not as important as the need for businesses born on the Internet or that have moved into e-business (such as construction companies) to focus squarely on the customer. Their behaviour and preferences matter even more on the Internet than in more traditional environments.

The customer is far more in control. On-line it is they that choose to visit a company's website or type in the 'URL' into the top line of their web browser. Web-ads and

banner promotions are small and the customer has total freedom to click on the advert to reveal more product details, or not.

The emphasis on the "customer first" philosophy is even more important. Internet promotion to the customers, and indeed, broader business stakeholders must be designed to entice users. They must perceive a level of satisfaction, and value in the experience, to induce them to buy the company's products, services or information and become loyal to the "brand".

Websites as an integral marketing and promotional tool

Traditional marketing was never "just about " advertising and selling. Indeed, this debate has consumed many authors and practitioners over many years. Before any business can start to promote its products and services, it needs to have researched itself and its market environments (Green and Tull 1977). To quote Kotler (1984), 'marketing research is the systematic problem analysis, model building, and fact finding for the purpose of improved decision making and control in the marketing of goods and services".

On-line marketing uses the same research techniques centred around secondary (or desk research) and primary (own research) into market size and demand, level and quality of competition, present use of products, pre-testing, post-testing and evaluation of promotional activities etc. Internet technology can make research easier, and a company information system more effective, but the data generated from a range of internal and external sources needs to be kept up to date (Cronin 1995). The company Intranet is a powerful internal communications tool but can also make it easier for businesses to maintain the system and share vital data across the organization (Hagel and Armstrong 1997).

Promotional decision making is part of the marketing mix of the business. Traditional forms include;

- advertising, aimed at creating awareness of benefits and availability of the product and existence of suppliers.
- sales promotion, direct marketing, personal selling and merchandising aimed at encouraging sampling of the product and repeat business.
- public relations establishing and maintaining a good corporate and product image.

The Internet is a unique promotional medium. Traditional promotional techniques generally involve a "one-to-many" approach and give little opportunity to consumers to communicate with the supplier. In contrast, the net is highly interactive and does not operate in real time. The consumer has more choice and more control. A very distinct and customer sensitive approach is required which makes life easy and more rewarding for them.

The basic principles of advertising (AIDA) still apply (Bickerton *et al.* 2000). Web presence needs to get the attention of users, gain their interest, stimulate their desire in the offering and finally get them to take action, generally in the form of making a product purchase. Another useful approach is the DAGMAR model; defining advertising goals for measured advertising results. This requires ensuring awareness of the brand or company, comprehension and understanding of its products and benefits, customer conviction of the claims made of benefits and again, action towards the purchase.

On-line, these well-established models may be applied using the electronic technologies available. Posting a banner advertisement on a busy website will achieve user awareness of the business. The user then needs to be encouraged to "click through" to more detailed information on the product or service offering. Convincing Internet users of the claims made about a product requires credible testimonial and proof. The action stage will include some form of request to the supplier for more information such as promotional literature, inspection of the product or demonstration. Finally a purchase by the user will need some e-commerce facilitation, i.e. catalogues, shopping cart, secure on-line payment and customer service facilities.

Constructing a brand on-line

Initially, companies that had not established brands but who were first on the Internet were able to build a reputation. This is increasingly difficult due to the flood of businesses entering the e-marketplace. What is required is use of a combination of an on and off-line marketing techniques. Companies can use direct mail, broadcast and print media, billboards and telesales. Bickerton *et al.* (2000) refer to jungle.com who used amongst other tactics, bus advertisements and sales promotions to get users to register on their site.

Once established on-line a company has new tools in developing a customer relationship through interaction with the business and the site. In contrast to traditional brand management the Internet offers extensive personalized communication tools to solve problems and degrees of detailed information on services and products.

In the design of a site the business needs to identify how customers/users would like to interact, what will be an effective customer relationship on--line, how two-way communication can be developed and maintained and what on-line experience will improve perceptions of the brand. Solutions to these issues will enable a company to understand usage of the website and the reputation of the brand and how this can be refined in the long term.

Bickerton *et al.* (2000) identify four key issues when designing a site;

1. first impressions must immediately add value and ensure positive perceptions of the brand and service quality.
2. responsiveness to on-line requests is an indication of service. It must be faster than traditional communication tools as the Internet is perceived to be an immediate medium. Customers will be reassured if a business responds quickly that if they have any problems with the service or product the business will act speedily in finding solutions.
3. technological quality of the site is essential. out-of-date links or screens that don't work sends out a very negative message.
4. understanding of the user/customer and the way they buy is imperative. Site must be simple to use and allow the customer maximum freedom. The business will have to recognize that some customers will still want to use traditional forms of communication at some point.

Website design content and management issues

There are three essential dimensions to website design and management (Plant 2000);

- content
- format

- access

Users want quickly assumable information and data. They want the ability to navigate easily to gain a clear understanding of the sites progression to more detailed information. The key is to match the user's psychological, demographical and technological sophistication profile with the sites initial and subsequent impact. There must be a balance between information provision to the customer and information collection by the business on visitors. The aim must be to develop customer-site interaction to use connections to move the customer towards the "sell". The content and design of the site must build relationships with customers that lock them in to a site by offering continual advice for example.

AIMS OF THE RESEARCH

The aims and objectives of the research (Cox and Preece 2000) were to:

- Establish a method by which to assess the effectiveness of web sites as an interactive marketing communications tool in construction.
- Validate this system with a sample of practicing construction professionals
- Implement the survey of the web sites of the top fifty UK contractors using the established system and factors identified
- Rank order the contractors according to the factors

METHODOLOGY

The following gives a detailed account of the methodology employed to undertake the research for this paper. To date no research has previously taken place within the UK construction industry evaluating contractors web sites as a means of marketing communication.

Parameters of Research

Before undertaking a review of the top fifty UK contractors web sites it was necessary to define the main parameters of the research and what activities could be considered crucial to a web site when being used as a medium for marketing.

The main thrust of the research considers and evaluates the current status of the top fifty UK contractors web sites. Marketing via the Web is like no other marketing medium. It is a global opportunity to increase company and brand awareness at minimal cost and it is also capable of instantaneously responding to a request on a one to one basis. The following factors were therefore included; the Ease of Contact and Response Rates via a contractor's web site and a review of any subsequently received responses by evaluating the Quality and Content of Postal Responses. Hence with the addition of the actual review of the web sites, three main categories were devised, which were weighted in order of relevance to the research as indicated below in Table 1 Categories.

Locating the Web Addresses

The first stage of the research involved compiling a list of all the top fifty UK contractors web site addresses. Primarily this involved using the main commercial search engines available on the Web such as Yahoo, Alta Vista, Freeserve, Webcrawler and the likes. Unfortunately this eventually became somewhat a fruitless and time wasting exercise as not all of the top fifty UK contractors web addresses

could be easily identified by this method. Attempts were then made to hypothesise what a contractor's web address may be. For instance Wates Construction was found to be www.wates.co.uk. This method although not orthodox in its wider application helped reduce the list of fifty by a significant amount.

Table 1: Categories

Category	Weighting
Ease of contact and response rate	15%
Web site review	75%
Quality and content of postal response	10%
TOTAL	100%

However there still remained a sizeable amount of web addresses to identify. Having exhausted all common methods of identifying web addresses, apart from that of carrying out an extensive review of all trade publications, it was decided to telephone the remaining contractors head offices and ask for their web addresses. This proved to be successful. However the stumbling block here was where and how to obtain the remaining contractors telephone numbers in an easy and simple manner. The logical solution was to revert back to the Internet and use the resources available to obtain the numbers. In this instance it was to log on to the Yellow Pages web site, www.yell.co.uk and use their directory listing. This method proved to be successful and the list of fifty was completed, identifying those contractors with web addresses and those without.

It is worth commenting at this point that at present there is a construction portal, which lists some of the top fifty UK contractors web addresses. However at the time of this research this list appeared to be somewhat negligible.

Ease of Contact and Response Rates

As part of the research for this survey it was decided that in addition to reviewing the top fifty UK contractors web sites that it was necessary to review and test the methods available for interacting with each contractor via their web sites.

The review and subsequent analysis involved logging onto each contractors web site and identifying an appropriate means of communication with the contractor via the Internet. For the purpose of this survey these means of communication were limited to email addresses and user enquiry forms. Concise notes were made on each contractor's available methods of communication. A scoring system was devised with points being gained for the type of method or methods available.

Having established this data, each contractor was then contacted individually using their identified method of communication via the Internet. A simple and concise request was sent complete with the user's name and email address.

The date these requests were sent was recorded and on receipt of any postal responses the date of arrival was noted accordingly in order to calculate how long it took a contractor to respond, if at all. The response rates were then incorporated into the survey by establishing a scoring method that rewarded prompt replies. After a period of 28 working days had elapsed from originally contacting the contractors all of the information received was then evaluated for its relevance of content and quality.

As commented, included within this request was the user's email address. This allowed each contractor, if so required, to respond immediately to the user regarding their request. Any such responses received via the user's email address were noted

accordingly and integrated into the overall ranking system depicting the “Ease of Contact and Response Rate” for each contractor. The scores accumulated for this section were then integrated into the final overall-ranking performance summary making up 15% of the final score.

WEB SITE REVIEWS

Establishing a Review Criterion

The next stage of the research was to establish a criterion method reflective of what client teams may be looking from a contractor’s web site and the kind of information they are most interested in obtaining. Initially this involved carrying out a detailed literature review of current text on web site design and content, key areas of marketing as well as identifying specific content relevant to construction clients. Eventually five sections with one subsection were identified, as shown below.

- Accessibility
- Design
- Content, incorporating online information
- Interaction
- Contactability

Each of these sections contained a compliment of predetermined issues in no particular order of merit. To ensure that these issues reflected a general attitude of what customers are looking for in a web site, selected construction professionals and academics were asked to rank order these issues as they perceived them. These professionals and academics were from various backgrounds including architects, quantity surveyors, project managers, consultants, private clients, university professors and postgraduate university students. On collation of these results a mean rank was established for each section along with an appropriate scale of measure. Each section was then given a percentage weighting which eventually helped determine 75% of the final overall-ranking score, to create a rank order of the top fifty UK contractors web sites and back office systems overall performance.

Having established this criterion method for reviewing web sites, the next stage of the research was to commence reviewing the top fifty UK contractors web sites. In order to ensure that the review was carried out on an equitable basis a maximum of 25 minutes was allocated to review each contractors web site. It was felt that within this 25 minutes it should be possible for a user to extract all the required information from a web site. Any longer may begin to detract from the usefulness of the exercise and potentially fail to provide a genuine representation of the amount of time a user would spend on pulling information from one web site. To ensure consistency in the reviewing processes no more than ten web sites were reviewed in any one day. Key notes were made on each contractors web site including good and bad points, all of which would eventually be analysed to help formulate a best practice model and / or guidance notes for UK contractors when using a web site as a means of marketing.

Validation of Web Site Reviews

In the main, the web site reviews undertaken could be considered to be particularly subjective. For this very reason and to ensure that the research did not become the opinion of one person, selected professionals including an architect, a client consultant and a marketing specialist were given a compressed version of the original criterion

evaluation method and asked to rank order fifteen specified web sites. These rank orders were then compared back to the original more detailed web site reviews to check for consistency. In addition, these professionals were also afforded the opportunity to comment on any of the web sites they reviewed. Any such comments were also compared back to the original notes made when reviewing the web sites to check for consistency in opinions. It is envisaged that this validation process provided a beneficial degree of creditability and validity to the final results.

Quality and Content of Postal Responses

Having completed the review of the web sites and validated the subsequent results, there remained one further activity to complete before an overall-ranking performance summary could be established. To complete the remaining 10% of the overall performance score it was necessary to evaluate all of the company brochures received for their quality and content. To do this a simple and concise scoring system was developed. Primarily it concentrated on the formality of the response, i.e. whether or not a letter or compliments slip was included.

Secondly the scoring system assessed the content of each company brochure. The headings under which points were scored were the same as those already established for the subsection used within the web site review covering online information. As these headings had already been ranked and commented on by professionals and academics they again provided a true representation of the sort of information construction clients are interested in. However unlike in the web site review, no order of merit was applied and each heading carried equal points.

Final Overall-Ranking Performance

On completing the review of the postal responses the remaining 10% of the overall-ranking performance score was added to the previously completed 90%. This then gave a total score for the overall performance of the top fifty UK contractors web sites and back office systems, which was then in turn ranked in ascending order. (See Table 2). The results were then compared to the top fifty UK contractors turnover ranking order as at the end of January 2000 (Contract Journal, February 2000). Subsequently from the research it was possible to firstly identify where the current benchmark is for UK contractors web sites and their back office systems as a medium for marketing. Secondly, what activities need to be considered by contractors if their web site is to be effectively used as a marketing communication tool.

OVERVIEW OF RESULTS

Having established the top fifty UK contractors correct web addresses it was necessary to simulate the process a user may undertake in trying to locate the contractor's web addresses through the use of a search engine, thereby identifying the best and worst performers. The majority of users when online have a specified objective and it is thought that on average a user's attention span when looking for information is between 7 to 8 seconds. Therefore if a web address is to be located within such a small time period it not only has to be top of the list of matches but also be of relevance to what the user is looking for. If this is not the case many users

Table 2: Overall-Ranking Performance

Ranking No.	Turnover No.	Company	Ease of contact and response rate	Web site review	Quality and content of postal response	TOTAL
			15%	75%	10%	
1	25	Galliford	10.7%	60.0%	8.8%	79.5%
2	32	Alfred McApline	12.9%	52.9%	6.9%	72.6%
3	9	Kvaerner	9.6%	57.7%	5.0%	72.3%
4	1	Carillion	11.8%	54.3%	6.3%	72.3%
5	16	Birse	11.8%	54.9%	5.0%	71.7%
6	10	Gleeson	10.7%	59.0%	0.0%	69.7%
7	27	Try	15.0%	46.9%	5.6%	67.5%
8	28	YJL	9.6%	48.3%	8.1%	66.1%
9	5	Kier	13.9%	49.6%	2.5%	66.0%
10	20	Bowmer and Kirkland	12.9%	52.0%	0.0%	64.9%
11	6	Laing	4.3%	56.6%	2.5%	63.4%
12	3	Mowlem	9.6%	46.2%	6.9%	62.7%
13	42	Jackson	12.9%	43.3%	5.0%	61.2%
14	46	Thomas Vale	9.6%	41.5%	9.4%	60.5%
15	34	Dean & Dyball	10.7%	44.7%	4.4%	59.8%
16	11	Sir Robert McApline	10.7%	44.6%	4.4%	59.7%
17	4	Balfour Beatty	6.4%	50.1%	3.1%	59.7%
18	2	Bovis Lend Lease	7.5%	48.3%	3.1%	58.9%
19	15	Tilbury Douglas	7.5%	50.8%	0.0%	58.3%
20	12	Taylor Woodrow	9.6%	44.5%	3.8%	57.9%
21	7	HBG Construction	8.6%	43.6%	5.6%	57.8%
22	30	Llewellyn	9.6%	41.8%	6.3%	57.7%
23	14	Costain	11.8%	45.5%	0.0%	57.3%
24	21	Miller	7.5%	48.8%	0.0%	56.3%
25	48	David McLean	7.5%	41.8%	6.9%	56.2%
26	36	Sisk	5.4%	46.4%	4.4%	56.1%
27	44	Hochtief	10.7%	39.9%	5.0%	55.6%
28	29	Edmund Nuttall	7.5%	46.6%	0.0%	54.1%
29	31	Amey	7.5%	46.0%	0.0%	53.5%
30	13	Morgan Sindall	9.6%	42.5%	0.0%	52.1%
31	8	Morrison	5.4%	45.9%	0.0%	51.3%
32	18	Wates	4.3%	46.3%	0.0%	50.6%
33	23	Willmott Dixon	9.6%	34.1%	5.0%	48.7%
34	50	Totty	4.3%	42.3%	0.0%	46.6%
35	22	Sheperd	4.3%	41.7%	0.0%	46.0%
36	17	Mansell	4.3%	41.5%	0.0%	45.8%
37	43	SOL	7.5%	35.8%	0.0%	43.3%
38	19	Ballast Wiltshire	1.1%	41.6%	0.0%	42.7%
39	37	Fitzpatrick	4.3%	37.9%	0.0%	42.2%
40	39	Clugston	1.1%	37.8%	0.0%	38.9%
41	47	Dean & Bowes	0.0%	2.9%	0.0%	2.9%
42	24	Norwest Holst	0.0%	0.0%	0.0%	0.0%
43	26	Allen	0.0%	0.0%	0.0%	0.0%
44	33	Henry Boot	0.0%	0.0%	0.0%	0.0%
45	35	Melville Dundas	0.0%	0.0%	0.0%	0.0%
46	38	Geoffrey Osbourne	0.0%	0.0%	0.0%	0.0%
47	40	Midas Construction	0.0%	0.0%	0.0%	0.0%
48	41	Styles & Wood	0.0%	0.0%	0.0%	0.0%
49	45	EBC	0.0%	0.0%	0.0%	0.0%
50	49	Higgins Group	0.0%	0.0%	0.0%	0.0%

simply about their search and look at others means by which they can obtain the information they require, which may result in a competitor's web site being accessed. At then time of the research it was found that 70% of the top fifty UK contractors web addresses could not be identified using commercial search engines.

A fifth of the top fifty UK contractors do not have a web site, or their web site is currently under construction or they are en masse failing to promote its existence. The average scores for each area of research undertaken and the average total score are all below half, which some professionals may translate as a 50% loss in potential business.

A person's first impression can have a lasting impression. For this reason, when reviewing the top fifty UK contractors web sites, varying degrees of design were observed all of which were presumably trying to make an impression on the user, some good some bad. It is however possible to identify which of the top fifty UK contractors web sites were at the top of the scale and which were at the bottom. In the main the top fifty UK contractors with web sites have appropriate and adequately designed web sites. However there are some web sites that serve no purpose than to frustrate a user, which can be the cause for a user to look elsewhere for their information. However in contrast there are some web sites that have been designed and formatted appropriately, achieving a good balance between quality and sophistication. These designs are adequate enough to convey some creativeness and the layout is appropriate so that all the various functions and sections are clearly visible

Incorporated within a web site design is its functionality - web usability. The majority of the top fifty UK contractors with web sites have included some feature of site navigation into their web site design. This is usually at the minimum a menu option by which a user can access the various sections of a web site. If a web site is to be used as a means for marketing it is a fundamental aspect to ensure that the user can find this marketing information with ease.

One of the principal differences of the Internet compared with other forms of marketing is that it has increased the opportunity for interaction with the customer. Consequently if a web site is used effectively as a means of marketing it is capable of bringing the relationship between a business and a consumer closer than any other marketing medium has ever been capable. This form of interaction needs to be adequately designed to not only encourage the user to pull information from a web site, but also be seen as an opportunity to encourage a user to directly interact with a contractor via their web site. Currently this form of interaction for the top fifty UK contractors is limited to the use of email or automated user enquiry forms.

CONCLUSIONS

The Internet and its usage have brought about a new culture amongst businesses. Growth of the Internet is beyond the original expectations of its creators as it is forecasted that e-business will become commonplace in years rather than decades. This electronic marketplace is opening up new sales channels on a global scale; businesses are no longer restricted by physical distances. The Internet is providing access to a wider audience allowing small and medium sized firms to compete as never before. However the main challenges of the Internet for UK contractors when utilizing their web sites as a marketing communications tool is not only to ensure its

application is relevant, but also to recognize the need to market each individual consumer personally and on a global scale.

This will require the development and implementation of new marketing plans that embrace this new tool for marketing communications. The major share of power now rests with the consumer, what some marketers refer to as the third phase of marketing - consumer domination. As change is the only constant, consumer demands of a web site will increase the more they become accustomed with this new technology. It is information that invites comparison and honesty in communications that will provide a competitive edge and commercial success for an organization.

Market communications is an integral part of any organizations corporate communications strategy and it is often consumers who are the best judges of the best businesses and subsequently their web sites. For this reason and in consideration of the findings of the research which attempted to replicate the actions of a consumer many of the top fifty UK contractors web sites have a long way to go before they attain the levels provided by the current benchmark. A consumer's experience of a web site must be pleasurable and one that they may want to tell their peers about. Therefore a web site not only needs to contain the quality and depth of information client teams are looking for, it also needs to be usable and to have a fully functional back office system in place, something which many of the top fifty UK contractors have failed to recognize.

The majority of the top fifty UK contractors' efforts to embrace the Internet in almost any form are slow. The momentum this research has achieved must now be maintained if the whole of the construction industry, not just the top fifty UK contractors, is going to effectively embrace the opportunities of e-business for the benefit of both contractors and consumers alike. The powers of this technology will undoubtedly continue to increase and provide new challenges, but its application must remain relevant and at present for UK contractors this means marketing of their organization and brands on a global scale through a web site.

As the construction industry is at the embryonic stage of change as far as the Internet is concerned every effort should be made to move forward strategically. A culture of development and implementation of strategies that allow a consumer to become more involved in the selling process is required. A web site has the capability of providing immediate feedback from a consumer on both the activities of a business and a business's web site. The challenge for a business is to then respond appropriately to this feedback, for example provision of more relevant information on a web site. The content of this feedback may require serious changes in the structure of some organizations in order to satisfy consumer demands. Every organization must recognize the potential of the Internet and without delay start to integrate its usage into their existing customer systems and business plans.

If the hype surrounding the Internet is to be believed, in that it is shaping the future of business to business and business to consumer exchanges, then integration of the Internet into an organization's corporate communications strategy must take place. This will then provide the catalyst for change and the movement forward that appears to be so desperately required. Decisions must be made to react appropriately to these changes otherwise businesses will risk their commercial future and may be left somewhat behind their competitors.

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