

CONSTRUCTION CONTRACTOR'S PERSPECTIVE ON WEB-BASED ADVERTISING OF PUBLIC SECTOR CONSTRUCTION CONTRACTS

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Despite a number of articles on the legal issues surrounding web-based advertising and e-procurement very little has been published on the softer issues surrounding its introduction. This paper seeks to fill that knowledge gap by identifying whether this is desired from a contractor perspective. The seventy contractors surveyed showed that contractors were in favour of advertising construction contracts electronically, publishing the status of these, showing who has won the contracts after the competition has been completed and were supportive of the integration of an e-mail notification system being built into the website. Cost and time savings, a central repository for contract advertisements, the flexibility improvement and improved visibility are identified as the drivers towards the introduction of such a system. The results show that 80% of contractors are satisfied that all investigated aspects of a web-based contract advertisement site for construction contracts under the European threshold would be beneficial. They are aware of the benefits, not only to them but also to the client. This paper also reports the results of a SWOT analysis: (strengths; weaknesses; opportunities and threats) to web-based advertising of contracts. The strengths identified in the SWOT analysis far outweigh the weaknesses and the opportunities overshadow the threats.

Keywords: advertising, contracts.

INTRODUCTION

Egbu *et al.* (2003) suggest that knowledge management is vital for organizations considering e-business initiatives. Knowledge management overcomes many of the softer e-procurement issues such as culture, social, organizational and human barriers. However, Forrest (1999) states that 80-90% of IT investments do not meet their performance goals. This performance gap is rarely caused by the technology itself. Performance failings can be attributed to little attention being given to human and organizational factors determining the outcome of information technology (IT) improvements. Irani and Love (2002) found evaluation of IT investment tends to be a major challenge and suggest that decision-makers should now move away from the confines of rigid capital budgeting processes and investigate a full spectrum of issues.

The European Union has set a value of £3.6 million on public procurement works which must be advertised via an Official Journal of the European Union (OJEU)

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notice (Euro Information Centre 2006) from 31 January 2006. Northern Ireland, in a similar way to the rest of the UK, has traditionally advertised government construction contracts below this figure through the local press. However, the Office of the First Minister and Deputy First Minister (2005) has recently suggested that public sector organizations should make more use of the internet as an alternative to classified advertising.

Despite a number of articles on the legal issues surrounding web-based advertising and e-procurement (Bain and Subirana, 2003; Weitzenbock, 2002) very little has been published detailing whether web-based advertising is desired from a contractor perspective.

METHODOLOGY

Within Northern Ireland seven government departments are represented on an “E-procurement Strategy Working Group” established in 2003 to investigate e-procurement solutions. Representatives from Department of Regional Development (DRD) Roads Service Northern Ireland (RSNI), Department of Regional Development (DRD) Water Service and the Northern Ireland Housing Executive (NIHE) were primarily concerned with construction procurement. RSNI was selected as the case-study organization for this study as it was one of the first government organizations to implement a system of electronic procurement in 2001.

RSNI is responsible for over 24,800 kilometres of public roads together with about 8,200 kilometres of footways, 6,000 bridges, 254,000 streetlights and 370 public car parks.

The RSNI’s register of contractors was used to formulate a complete list of 70 contractors who had registered an interest in road works over the past four years. Fifty of these contractors responded to the survey. The character of the sample ensured all sizes of companies were represented. Figure 1 shows a breakdown of responding organizations by company size based on the number of employees within the organization.

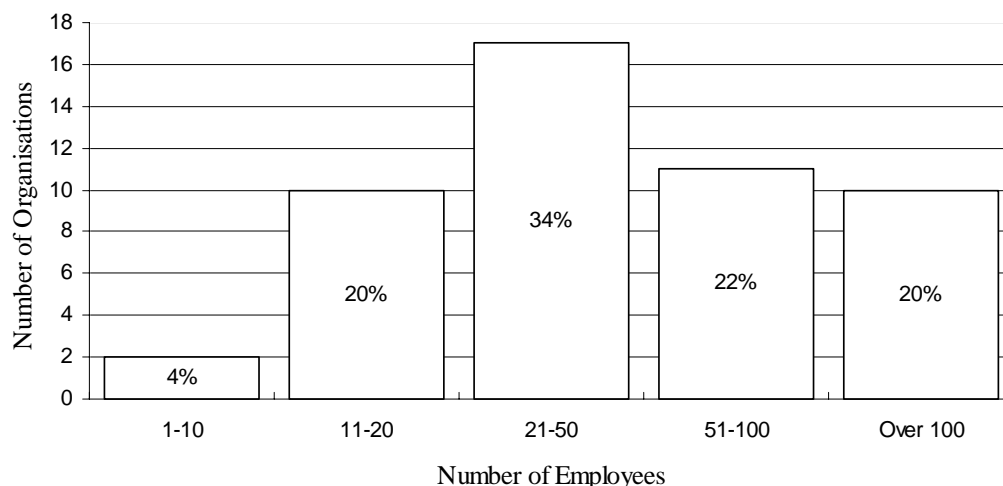


Figure 10: Breakdown of Responding Organizations by Company Size

A substantial literature review on e-procurement was carried out to identify relevant studies into web-based advertising in the construction sector. This identified criterion of web-based advertisements for investigation. While the literature review identified reports on the legal aspects of web-based advertising, few studies concentrated on the desire or otherwise of those in the industry to have such a system implemented.

The format, aims and objectives of the web-based survey were communicated to each of the companies via a short telephone briefing. This was also used to act as part of an initial contact pre-notification for the web-based survey. PHP surveyor™ (a system similar to that described in Solomon (2001)) mounted on a website was then used to conduct the survey. This package provided the interface for the collection of responses. Data recorded through the interface was captured to a SQL query-enabled database. The web-based interface allows direct entry of data by the respondents; this reduces common errors in data entry prevalent in the use of standard inputs. The web-based survey received a 73% response rate, therefore surpassing the representativeness and bias levels for surveys (Eysenbach 2004).

CONTRACTS ADVERTISING

The UK Government brought into effect the Local Government Act for England and Wales in 1988. This required public sector construction contracts to be advertised by law for the first time. In this document, Clause 4(4) stipulated that the advertisement had to be placed in at least one newspaper.

The 'Modernizing Government' White Paper (1999) shaped the government's reform of the public sector by introducing accessibility to government services and ensuring an increased level of quality. The paper stated that government would look at the internet as a means of providing services. The intention was that the internet should take its place alongside more innovative use of the telephone, the call centre and the paper document, but not replace them.

The Office of the First Minister and Deputy First Minister (2005) published a review of government advertising in Northern Ireland. In this review, Clause 3.1.6. suggested that the Internet could be used as an alternative to classified advertising for procurement. Web-based advertising would commence with a composite stage which would result in advertisements being placed in the newspapers pointing the reader to a website for details. This composite stage would then be phased out and superseded by full web-based contract advertising.

However, despite these advances in the documentation governing construction contract advertising on websites, no research has been published regarding how those 'government clients' in construction i.e. the contractors view these advances. This paper seeks to fill this knowledge gap.

Electronic advertising of construction contracts

The idea behind advertising construction contracts on the internet is to provide a central repository for advertisements, which increases visibility through 24 hour access seven days per week. The principle is to produce cost and time savings yet improving communication within the industry.

Figure 2 shows that contractor's were massively in favour of using a website to advertise construction contracts. Of those who responded, 82% intimated that they would prefer such a system to be fully implemented. Direct individual responses indicated they would like RSNI to proceed in the same manner as Department of Regional Development (DRD) Water Service and the Northern Ireland Housing Executive (NIHE).

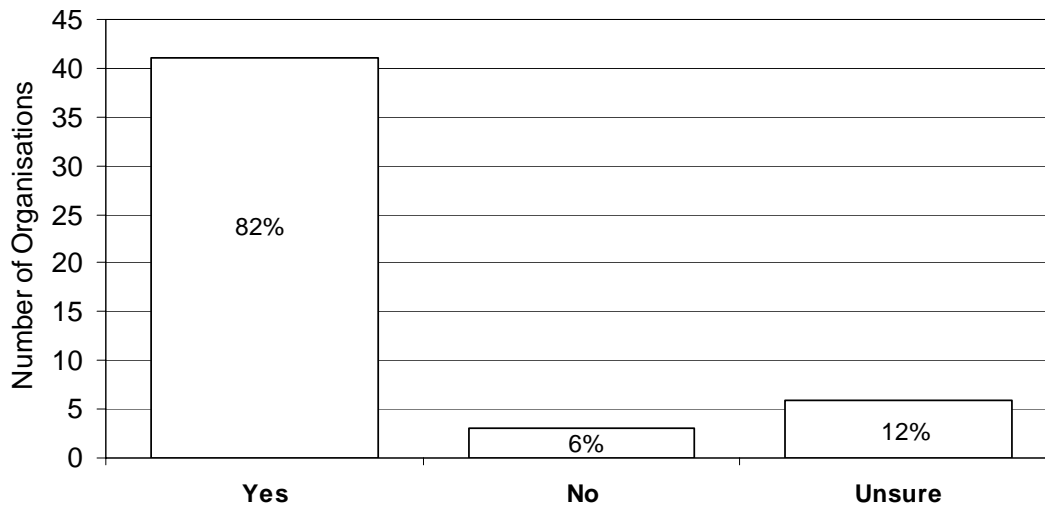


Figure 11: Views on preference for Contract Advertising on a website

Reasons as to why contractors would like to see contracts advertised on a website varied. Contractors were in favour of a single reference point where they could go to access all tenders. One suggested that this would be an even more positive development if the contracts were classified. A single portal advertising all Government contracts in Northern Ireland was suggested in 2006 by the E-procurement Strategy Working Group. This single source could produce time savings for companies trying to locate and keep informed of government contracts. Eight companies who completed the survey suggested it would decrease the possibility of advertisements being missed.

Those against electronic advertising (6% of the sample), cited the following as reasons for unfavourably viewing web-based advertising of contracts; “it would be just as easy to see the adverts in tendering magazines”, “not everyone in the firm had time to access the internet”, and that “they did not have the necessary IT personnel”

Publishing the status of construction contracts on a website

Some public sector websites already publish the status of the contract procurement process. In Australia, Northern Territory Government (2006) and New South Wales Department of Commerce (2006) subdivide their websites into future, current, closed and awarded tenders. As a tender moves through the procurement process the contract moves between these sections. This increases the visibility of the procurement process and allows contractors to plan resources such as personnel and time.

Publication of the progress status on a website is preferred by 80% of the respondents. They cite improving communication, openness and transparency as the main reasons.

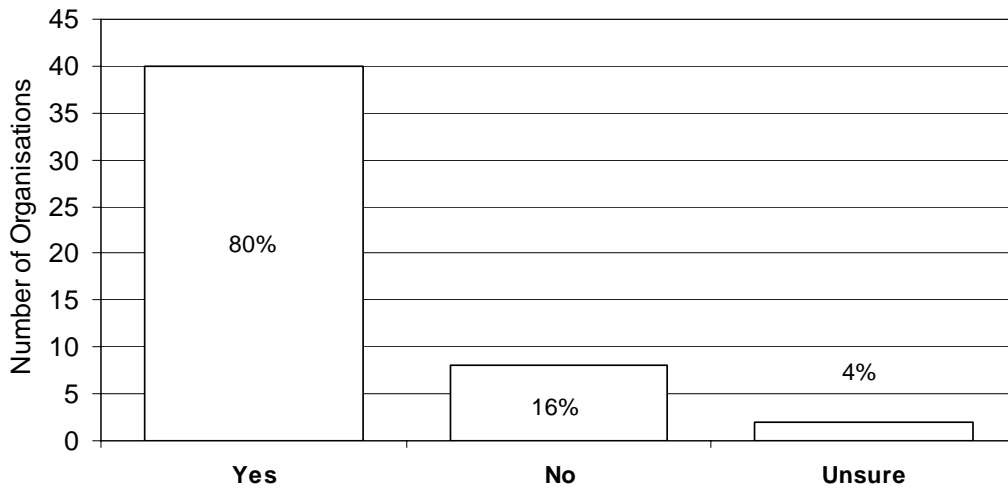


Figure 12 Preference on publication of the Status of Contracts on a Website
 Those against the publication of the progress status on a website regard this information as a breach of confidentiality in contract award and suggest that publishing it would give competitors too much information. However, the information relating to whether a tender is at first (pre-qualification) or second stage (Quality /Price evaluation) or awarded can not be deemed as confidential as all parties who are interested and have tendered for the work will have already been notified. Perera *et al.* (2006) show that one of the most important drivers for e-procurement is ‘Improved Communication’. Publishing the status of contracts on a website improves communication during the procurement process.

Publishing successful bidders of construction contracts on a website

The third question in this section related to the publishing of winners of contracts on a website. The literature review identified this as being extensively used as a method of publishing contract award data worldwide (Australia - Northern Territory Government, 2006; New South Wales Department of Commerce, 2006; UK - North East England Regional Development Agency Website, 2007; Buy Wiltshire, 2007; Canada – Merx, 2007; Hong Kong – Official Receivers Office, 2007). The European Journal is another good example of this.

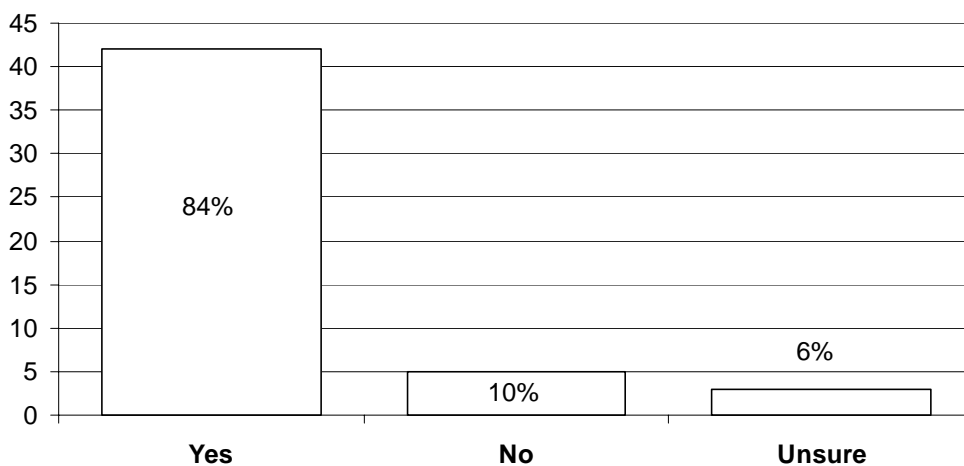


Figure 13 Preference for electronic publication of award of Contracts on a website
 Again contractors were predominantly in favour of publishing the winners on a website. Figure 4 shows they considered that it is acceptable to publish the results in the interests of transparency and freedom of information. Some suggested that this would be useful to them in order to benchmark against other contractors and in

gauging market conditions. They also suggested that there was less likelihood of the information being lost through misplacing the paper notification. Those against publishing the names of contract winners on a website state confidentiality as a major concern.

E-mail notification of construction contracts

The final aspect of research conducted related to the use of an e-mail notification system. This system notifies those signed up to the website of any changes to the website. This may be in the form of information, contracts or award notices added. Websites such as North East England Regional Development Agency Website (2007) and the Tendermatch website Tracker system (2007) are examples of where this process of e-mail notification is used. Contractors register by signing up for an online update. This is performed by means of a mailing list. This list automatically e-mails those on the list with the notification message declaring the relevant information or advertisement upload. The tracker system, advertising European works contracts is one such system which can be signed up for and automatically tracks the advertisements which relate to the respective firms.

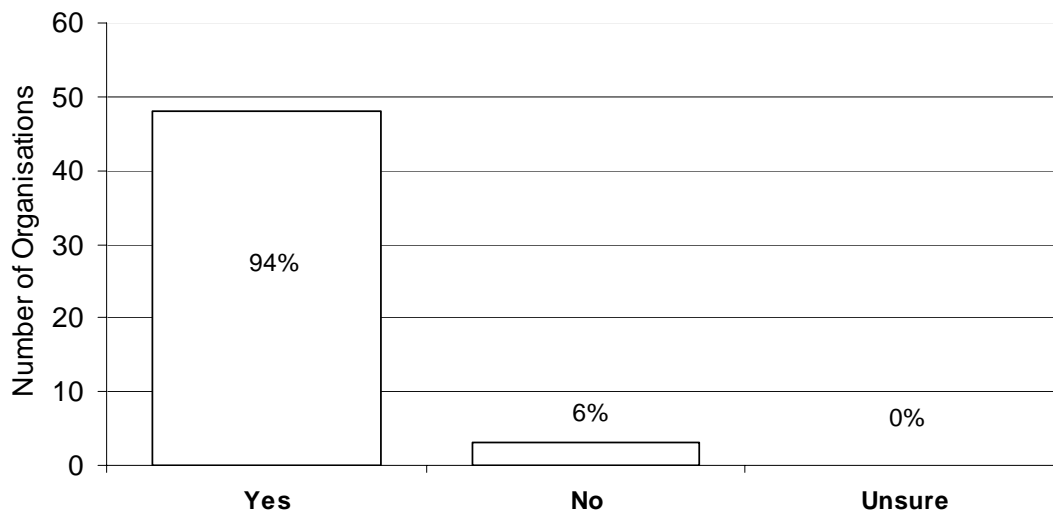


Figure 14 E-mail notification of Contracts Advertised on a Website.

Figure 5 shows 94% of Contractors were positive regarding the implementation of such a system. Only three were against it. Of these three two were small firms who had highlighted a deficiency in IT capability.

SWOT ANALYSIS OF WEB-BASED CONTRACT ADVERTISING

Table 1 below indicates the Strengths Weaknesses Opportunities Threats (SWOT) analysis of Web-based Contract Advertising for RSNI. The implications are analysed in the following sections.

Table 6: SWOT Analysis of Web-based Contract advertising

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Cost and Time savings 2. Central place for Contract Advertisements 3. Not limited to when a external source - newspaper - can publish 4. Improved visibility through universal 24 hour access 5. Improves Communication 6. Links to Freedom of Information (FOI) site 7. Moderated by Senior officer 8. Guaranteed to go live when required 	<ol style="list-style-type: none"> 1. Relies on internet access 2. What happens when the server is down? E-mail is normally saved but time for documentation issue may be passed before it gets up and running again. 3. If Authorized Officer(s) are on leave advertisements can not be published.
Opportunities	Threats
<ol style="list-style-type: none"> 1. Can be adopted for all types of advertising ie Road Closures etc. 2. Is not limited by type of Contract ie will work for Design Build Finance Operate DBFO contracts etc. 	<ol style="list-style-type: none"> 1. Cultural adverse reaction within the company 2. Resistance to Change 3. Security Issues regarding changes to Advertisements

Strengths

The major strength in Web-based Contract advertising is its cost effectiveness. An example of a typical newspaper advertisement by the case study organization (Figure 6) would result in a cost of £1494.49 per night at the 2005 rates for placement in three newspapers – Belfast Telegraph, Newsletter and the Irish Times. (See Figures below)

Belfast Telegraph	£694.50
Irish News	£397.00
Newsletter	<u>£402.99</u>
Total	£1494.49 per night

This amounts to £28,500 for the RSNI contracts section alone per year. Once movement to a website has taken place this would be the expected saving per year without time factors taken into account.

Publishing on a website is in the control of the website administrator and this will result in greater flexibility as to when the advertisement can go ‘live’. The time limit that the advertisement is visible will also rely on the administrator. This will result in increased value for money and increased visibility as the advertisement will not be restricted to three days which is current Roads Service policy. Moderation by a senior officer within the organization will result in increased quality control of the content of the advertisements.

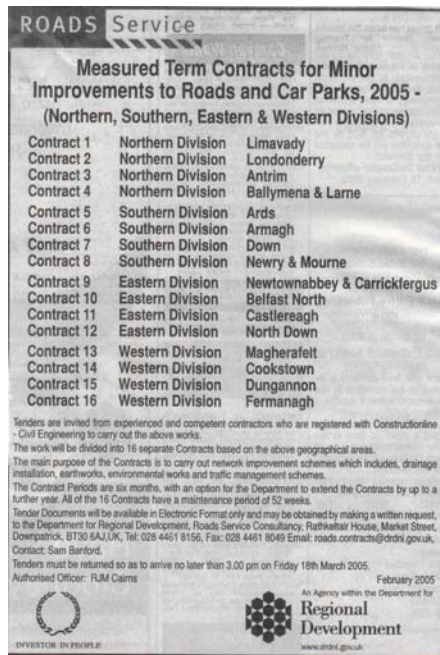


Figure 15: Typical Works Contract Advertisement

Weaknesses

Northern Ireland statistics, NISRA (2005) show increased Personal Computer (PC) ownership (61%) and increased internet usage from home (53%) in Northern Ireland. This has increased from 52% and 43% respectively. However, there is a sizeable proportion of the population who do not have this access and would therefore be at a disadvantage. With Northern Ireland being the first region in Europe with full broadband coverage and the UKonline initiative providing the public with free access to the internet at specified points the impact of lack of access is somewhat mitigated.

The other two weaknesses are technical concerns. Server uptime can be maintained through backup servers but will be a difficulty for organizations who do not have this facility. Problems with the availability of personnel can be mitigated through the manipulation of leave or work arrangements.

Opportunities

External opportunities exist for any type of construction advertisement including the buying of goods and services. All different contract types can be catered for such as advertisements for Design Build Finance Operate (DBFO) schemes.

Threats

A threat exists in that the website will normally be administered centrally within a company, resulting in a loss of control by the various outlying offices and may produce an adverse reaction when the procurement function is centralized. There may also be a resistance to change from the way it has been done in the past. Security from hackers may also prove problematic. Advertisements should be protected online from editing or deletion.

CONCLUSION

In Northern Ireland contractors are satisfied that their interests will be fully served by web-based advertisement of construction contracts under the European threshold. 82% of the contractors surveyed desired that a system for advertising contracts was

implemented in order to acquire the benefits of a single point of access for contracts from RSNI which was accessible 24 hours per day, 7 days per week.

There was also 80% support for the status of the contract to be published as it progresses through the procurement process. 84% considered that RSNI should follow other international procurement sites and publish award notification on the internet. Over 90% of contractors also supported the notification system identifying changes to the website in terms of information or new notices be implemented.

The above indicates that they are aware of the benefits web-advertising can bring, not only to them but also to the client. This paper identified the strengths, weaknesses, opportunities and threats to the system. The identified strengths in terms of cost and time savings, increased visibility, links to other government initiatives such as Freedom of Information, and control more than compensate for the identified weaknesses of relying on internet access, server reliability and operational issues. The strengths identified in the SWOT analysis therefore far outweigh the weaknesses and the opportunities overshadow the threats.

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