Online marketing communication potential
Priorities in Danish firms and advertising agencies

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Abstract
Purpose – The paper seeks to indicate where resources should be directed to utilize online marketing communication (OMC) further, including the identification of the diversity of OMC adoption, prioritization and future potential.

Design/methodology/approach – A conceptual model of prioritization and potential of OMC, specified as a structural equation model is developed. Research data are collected from both Danish advertising agencies and major companies, and based on these data the model is estimated by using partial least squares (PLS).

Findings – The adoption of OMC by companies, as opposed to advertising agencies, is rather diverse. Companies should take responsibility for the holistic utilization of OMC, as well as the development of holistic prioritization methods. Special attention should be given to online relationship communication, as this discipline is the primary driver of confidence in future potential, and online interactive communication, which has the largest potential for improvement.

Research limitations/implications – The research is based on a single geographic market (Denmark), and its transferability to other markets can be questioned. The geographical constraint also means that the sample is limited.

Originality/value – The paper presents original findings for online marketing communication planning and prioritization, and thereby adds to a green field that lacks both theory and practical recommendations.

Keywords Marketing communications, Internet, Business planning, Mathematical modelling, Least square approximation, Denmark

Paper type Research paper

Introduction
The internet has had a tremendous impact on many processes in companies. Marketing is probably one of the areas most affected due to the possibilities offered in online communications (Krishnamurthy, 2006; Krishnamurthy and Singh, 2005; Sheth and Arma, 2005). Thus, online marketing communications (OMC) has grown to be an important part of a company’s promotional mix (Adegoke, 2004). Whereas OMC in its early days was limited to mainly the implementation of corporate websites, greater possibilities exist today. As the literature shows, OMC today consists of multiple activities (Jensen and Jepsen, 2006; Jensen and Fischer, 2004; Strauss et al., 2003; Roberts, 2003). In this paper, answers to the following questions are therefore considered:

(1) How diverse is the adoption of OMC?
(2) Are some disciplines prioritized more than others?
In answering the questions, there is a need to estimate multiple endogenous constructs simultaneously in the same system, each construct with multiple indicators; therefore, a structural equation modeling approach is used (Bagozzi, 1980; Fornell, 1982) in developing the conceptual model. Further, partial least squares (Wold, 1974) is used for estimating the model. Compared to LISREL (covariance structural modeling), PLS offers minimal requirement of sample size and residual distribution (Chin, 1998b). The model strives to examine how the overall priority of OMC is impacted by different OMC disciplines. Moreover, the model includes offline marketing communications (MARCOM), as it is believed to influence the priority of OMC. Further, usage of methods for OMC prioritization is included as a construct as it is believed to have a positive impact on both the current priority as well as the confidence in future potential. It is argued that the problem could be answered from measurement data both where the demand for OMC is and where it is in fact used. Two models are therefore estimated using research data collected from both major Danish companies and Danish advertising agencies. The double research approach is applied to indicate whether there are any major differences in the companies’ resource allocation compared to the demand among advertising agencies, and eventually to answer whether companies can rely on the agencies pushing a holistic OMC approach or whether the companies themselves should take responsibility for holistic utilization of OMC. Research data from Denmark is used to achieve results least limited by technological constraints. With an average European broadband adoption of 14 percent (first quarter 2006), Denmark is, by nearly 30 percent, the European Union country with the highest adoption (European Competitive Telecommunications Association, 2006). Using the historical growth rates, it will take a couple of years before the European average catches up with the Danish penetration.

Hypotheses describing the relationships between the different constructs have been developed; however, the estimations of the final models are explorative, including all significant relations. In the final section of the article the findings are reviewed and important managerial implications and areas for future research are pointed out.

Formulation of model and constructs
The conceptual model for firms and advertising agencies is illustrated in Figure 1. Based on the literature review, seven independent constructs and three dependent constructs have been defined. The ten constructs are measured using the 29 questions listed in Table I. The hypothesized causal relationships between these constructs are described in Figure 1.

Exogenous constructs
Online marketing communications. Integrated marketing communication (IMC) has generally been accepted as a profound and correct way of executing marketing communication. Both the general IMC literature as well as the more specific online literature recognize that OMC also includes multiple activities (Belch and Belch, 2004; Duncan, 2002; Jensen and Fischer, 2004; de Pelsmacker et al., 2001; Pickton and Broderick, 2004; Kitchen and de Pelsmacker, 2004; Strauss et al., 2003; Roberts, 2003).
Based on the above-mentioned literature, 13 communication tools have been deduced which below have been divided into five OMC disciplines. No distinct categorization of IMC exists, and the framework first proposed by Delozier (1978) has been under constant development. The categorization is inspired not only by IMC literature but also by the way that online activities are generally used and categorized by practitioners.

The first discipline, online advertising, consists of three primary indicators:

1. *Display advertising* (Q1), i.e. banners, pop-ups and interstitials, has proven to be very competitive to offline advertising (Briggs, 2002; Nail, 2002; Swinfen-Green, 2002).

2. *Search engine optimization* (SEO) or *search engine marketing* (SEM) (Q2) can be subdivided into two categories, i.e. organic and paid optimization. Organic SEO refers to achieving good search rankings for a website without paying for it. Search engine algorithms use different parameters to assign websites a certain rank. Search engine algorithms are held secret and the organic SEO discipline therefore involves trying to figure out the parameters. Paid SEO or search engine advertising (SEA) may be best known in the form of Google Adwords but also other services such as Overture, which manages SEA for Yahoo and MSN, are available (Seda, 2004). Whereas organic SEO may give permanent high ranking and traffic from search engines, SEA is a rather short term, but a very fast way to generate traffic. Smith (2005) shows in a European Jupiter Research Report that paid search, on average, exceeds display advertising as the most predominant online advertising format.
<table>
<thead>
<tr>
<th>Activity</th>
<th>How important is the activity for your MARCOM efforts?/What is the demand for the activity?</th>
<th>Scale</th>
<th>CR</th>
<th>Index/mean</th>
<th>Advertising agencies Index/mean</th>
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<tbody>
<tr>
<td><strong>Online advertising</strong></td>
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<td>0.89</td>
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<td>0.82</td>
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<tr>
<td>Q1 Online display advertising, e.g. banners or video advertising</td>
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<td>A</td>
<td>30</td>
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<td>Q2 Search engine optimization/marketing</td>
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<td>A</td>
<td>55</td>
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<td>Q3 Online affiliate programs</td>
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<td><strong>Online relationship communication</strong></td>
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<td>Q4 E-mail direct marketing</td>
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<td>Q5 Online situation or location-based services</td>
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<td>16</td>
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<td>Q6 Online e-learning towards sales staff, distributors or customer</td>
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<td><strong>Online interactive communication</strong></td>
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<td>Q7 Online competitions, coupons, samples or lotteries</td>
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<td>A</td>
<td>20</td>
<td></td>
<td>32</td>
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<td>Q8 Campaign sites (microsites), e.g. towards specific target groups</td>
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<td>A</td>
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<td>Q9 Online games</td>
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<td><strong>Online PR</strong></td>
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<td>Q10 Online PR and media relations</td>
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<td>Q11 Online viral marketing</td>
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<td>Q12 Mobile marketing via SMS and MMS</td>
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<td>10</td>
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<td>Q13 Mobile phone homepages (WAP or 3G)</td>
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<td>A</td>
<td>5</td>
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<td><strong>Offline personal communication</strong></td>
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<td>0.84</td>
<td>67</td>
<td>0.88</td>
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<td>Q14 Offline direct marketing (postal or phone)</td>
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<td>A</td>
<td>61</td>
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<td>Q15 Offline personal sales supporting activities</td>
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<td>79</td>
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<tr>
<th>Offline mass communication</th>
<th>How important is the activity for your MARCOM efforts?/What is the demand for the activity?</th>
<th>Scale</th>
<th>CR</th>
<th>Companies Index/mean</th>
<th>Scale</th>
<th>CR</th>
<th>Advertising agencies Index/mean</th>
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<tbody>
<tr>
<td>Q16 Offline advertising (TV, radio, print, cinema or outdoor)</td>
<td>A</td>
<td>46</td>
<td>0.80</td>
<td>58</td>
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<td>Q17 Offline sponsorships</td>
<td>A</td>
<td>36</td>
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<td>Q18 Offline point-of-purchase marketing</td>
<td>A</td>
<td>41</td>
<td>34</td>
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<tr>
<td>Priority of OMC</td>
<td>Online communication has high priority in our marketing activities/When we advise our clients online communication has high priority</td>
<td>B</td>
<td>66</td>
<td>0.82</td>
<td>62</td>
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<tr>
<td>Q19 Online communication has the same level of priority as offline/When we advise our clients online communication has the same level of priority as offline</td>
<td>B</td>
<td>54</td>
<td>74</td>
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<tr>
<td>Q20 How large a share of your total MARCOM budget is used online?/How large a share of your total turnover comes from online MARCOM?</td>
<td>C</td>
<td>37</td>
<td>65</td>
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<tr>
<td>Q21 To what extent do you follow the advice from your media, advertising, or web agency to use online MARCOM?</td>
<td>D</td>
<td>45</td>
<td>48</td>
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<tr>
<td>Future potential of OMC</td>
<td>How do you expect that your usage of OMC will develop over the next five years?</td>
<td>E</td>
<td>88</td>
<td>0.83</td>
<td>94</td>
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<tr>
<td>Q23 How large a share of your total MARCOM budget do you expect will be used online in five years?/How large a share of your total turnover do you expect will come from OMC in five years?</td>
<td>C</td>
<td>68</td>
<td>75</td>
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<tr>
<td>Methods for prioritization of OMC</td>
<td>We use a well documented method for prioritization of OMC</td>
<td>D</td>
<td>40</td>
<td>0.85</td>
<td>56</td>
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<td>Q25 To what extent do you use the following criteria to prioritise OMC?</td>
<td>D</td>
<td>36</td>
<td>52</td>
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<tr>
<td>Q26 ROI (return on investment) calculations and comparisons</td>
<td>D</td>
<td>45</td>
<td>40</td>
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<td>Q27 Calculations of reach, frequency and contact price</td>
<td>D</td>
<td>62</td>
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<td>Q28 Documentation about the target audiences media preferences and habits</td>
<td>D</td>
<td>63</td>
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<td>Q29 Past experiences/effect measurements with a specific activity</td>
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**Notes:** A: 1 = not important at all/no demand, 5 = very high importance/very high demand. B: 1 = strongly disagree, 5 = strongly agree. C: 1 = less than 5 percent, 11 = more than 90 percent. D: 1 = never, 5 = always. E: 1 = much less used, 5 = much more used
With affiliate programs (Q3), a link to the marketer’s website is placed on a host business’s site. The host earns a commission whenever a visitor clicks the link and carries out a transaction with the sponsor (Papatla and Bhatnagar, 2002). Affiliates are commonly paid based on the number of leads converted into customers, pay-per-conversion, or by number of leads referred, i.e. pay-per-lead (Libai et al., 2003).

Online relationship communication, the second discipline, also relates to three indicators:

(1) Direct e-mail (Q4) might be the one OMC tool that has had the highest penetration among marketers. Compared with offline direct marketing, online direct marketing allows customization, personalization, and niche targeting in a much more flexible, easier, quicker and cheaper way (Kitchen and de Pelsmacker, 2004). A Yesmail study showed that e-mails sent with no targeting and personalization had close to a 5 percent response rate, while the response rate for messages containing seven or eight personalization elements increased to 15 percent (Customer Interface, 2002; Taylor and Neuborne, 2002). Along the same line, a study by Ansari and Mela (2003) made e-mail customization based on click stream information (CSI) that the user leaves behind when, for instance, using a firm’s webpage. Response rates could be increased by more than 60 percent by customizing e-mail using this information.

(2) Context-based services (Q5) involve location- and time-based services, i.e. direct messages that are not only customized in content but also according to a specific situation. For instance, Strauss et al. (2003) gives the example of receiving a promotional message on your mobile device from your favourite restaurant while driving by it. Permission and acceptance are core issues that are fundamental to solve in connection with context-based services; respect of user privacy and clear opt-in will be the path to follow (Barnes and Scornavacca, 2004; Kavassalis et al., 2003).

(3) E-learning (Q6) is to a great extent replacing face-to-face classroom instruction in a growing number of businesses (Schweizer, 2004). Learning management systems (LMS) can include any kind of multimedia content, synchronous as well as asynchronous communication, all linked together and personalized (Li et al., 2005). Therefore e-learning is seen as a relationship communication tool.

Three indicators to be categorized as online interactive communication were found:

(1) Online competitions, coupons, samples, contests and sweepstakes (Q7) can be used to boost sales and encourage involvement and repeated access (Pickton and Broderick, 2004). According to Kitchen and de Pelsmacker (2004), more than 30 percent of the web population use online coupons. A 2003 Jupiter Research report states that 52 percent of online adults regularly participate in contests and sweepstakes (Whitney, 2003). In its essence these online promotions demand a high degree of interactivity from the user.

(2) Microsites (Q8) are smaller websites developed for a specific purpose such as a product launch or specific campaign (Kitchen and de Pelsmacker, 2004). The
The overall aim of microsites in comparison to corporate websites is not information but rather to involve the user by means of a high degree of interactivity.

(3) Third in this category is the usage of online online games (Q9). Even though the usage of online games in relation to OMC often is often referred to as “advergaming” (Lee, 2003; Garcia, 2004), here it is understood as a tool much more related to generating interactivity with the user than advertising is traditionally considered to be. By its nature, gaming demands a high degree of interaction and involvement and thereby does not only generate awareness and preferences, it also increases the engagement with the brand (Garcia, 2004). The stereotype of a typical online gamer is a socially withdrawn male with limited sex role identity. However, research by Griffiths et al. (2003) argues that this characterization might be misunderstood. Executed appropriately, an online game provides an elaborate and engaging interactive brand experience (Lee, 2003). Being able to use online games for a variety of target audiences supports the outlook by Garcia (2004), which foresees that online games will become a standard part of OMC.

The third discipline, online PR, is described by two indicators. To begin with, Macleod (2000) mentions five best practice parameters that should be considered when implementing online media relations (Q10):

1. supply time-critical information (e.g. financial information) in real time;
2. apply a “net-friendly”, not corporate, tone of voice;
3. enable full transparency and openness with data and content;
4. monitor and evaluate non-corporate views on the firm; and
5. monitor and evaluate individuals’ views expressed in communities.

For the majority of journalists, the internet is the most important research resource. Therefore, a comprehensive and updated virtual press center (VPC) that is easy to use is an important OMC tool (Haig, 2000).

Secondly, viral marketing (Q11) is deliberate spreading of a message through online word-of-mouth (Barratt, 2001). Viral marketing can be carried out by multiple “agents” (e.g. e-mail, streaming video and audio, games, programs, websites, pictures or simple documents). E-mail is used on a regular basis by most of the online audience and is therefore an obvious choice for viral marketing. Owing to its narrative capabilities, video is of course also an obvious carrier of viral content.

Mobile communication, the fourth discipline, can be explained by two indicators. Even though SMS (Q12) was not intended for heavy personal communications or for mobile marketing, its adoption has been explosive. SMS has already proven its effectiveness as an OMC tool, both as an individual element and integrated with, for example, TV (Rettie et al., 2005), and multimedia messaging (MMS) (Q12): both of the latter have also started to be adopted quickly (New Media Age, 2005).

In contrast to the slow adoption of the mobile internet in Europe and USA, the mobile internet has been adopted heavily in Japan (Ishii, 2004). As companies begin to realize the advantages of mobile communication, i.e. mobile websites (Q13), and technology matures, a faster diffusion will be seen in the coming years (Reynolds, 2003, Steinbock, 2003, 2005).
Offline marketing communications. Based on the current IMC literature (Belch and Belch, 2004; Duncan, 2002; Kitchen, 1999; de Pelsmacker et al., 2001; Pickton and Broderick, 2004; Delozier, 1978; Kitchen and de Pelsmacker, 2004), all mentioned offline communication disciplines have been reviewed. In line with the general accepted notion, all disciplines were grouped into two main constructs, each ultimately measured using the following indicators:

1. offline personal communication, measured by direct marketing (Q14) and personal sales (Q15); and
2. offline mass communication, measured by advertising (Q16), sponsorships (Q17) and point-of-purchase communications (Q18).

Endogenous constructs

Priority of OMC. The priority of OMC is constructed of four questions in the case of the companies and three questions in the case of the advertising agencies. Common for the two categories are two general questions about the priority of online communication in general (Q19) as well as compared to offline communication (Q20). Further, one question measures the amount of OMC included in the total MARCOM budget (Q21). In addition, the questionnaire to the companies included a question measuring to what extent the advertising agencies advice to use OMC is followed (Q22).

Future potential of OMC. Only two indicators measure the future potential of OMC: one related to the question about OMC budget in the present priority of OMC (Q24), and one of a more general character related to the expected development of OMC in the next five years (Q23).

Methods for prioritization of OMC. No silver-metric or holistic quantitative planning devices for integrated marketing communication prioritization exist (Ambler, 2003), either online nor offline. It is therefore suggested that this construct should be measured using one general question (Q25) and five specific questions related to the most common prioritization devices. The five specific measures were derived from interviews with experts in the industry and from the literature, as mentioned briefly below. The interviews included media planning agency professionals, communication consultants and marketing and media managers from major companies.

ROI (return on investment) (Q26) or even ROMI (return on marketing/media investment) has been widely adopted primarily as a tactically evaluative metric (Lenskold, 2003; Powell, 2003). Further, more advanced methods involving econometrics have found their way into ROI measurement (Cook, 2004; Hollis, 1994; McDonald, 2004; Saunders, 2004).

Where ROI is evaluative, and therefore a retrospective metric, reach and frequency (Q27) is a planning tool. Even though reach and frequency planning is mostly applied to advertising (Hansen et al., 2001; Leckenby and Ju, 1989), the principle has also been applied to a wider range of media (Kim and Leckenby, 2003; Leckenby and Hong, 1998).

As with much other planning, the target audience’s preferences are naturally also of great importance when it comes to communications planning. Early studies have in fact shown that consumers have clear attitudes and preferences towards media (Larkin, 1979; Stephens, 1981). Therefore, the target audience’s media habits and preferences (Q28) are seen by practitioners as a very important prioritization criterion (Saunders, 2004).
As is the case with ROI and brand equity, the results of prior activities are, unsurprisingly, often important criteria for prioritizing future activities. Therefore all collected experiences and previously conducted effectiveness measurements (Q29) are, and should naturally be, used as prioritization criteria. The measurements and evaluations of individual media effects include a variety of metrics (e.g. recall, recognition, clicks, response or purchase; Hansen et al., 2001).

ROI, as mentioned above, is in fact a marketing performance measure and not directly a prioritization device. In recent years there has been an increased interest in measuring marketing performance, and both academics and practitioners have tried to identify the most valuable marketing performance measures, among these are brand awareness, consumers’ associations, preferences, customers’ perceived quality, satisfaction and loyalty, sales, market share, sales trend, distribution, profit, gross margin and customer profitability (Ambler, 2003; Ambler et al., 2004; Ambler and Puntoni, 2003; Barwise and Farley, 2004; Clark, 2002; Glazier et al., 2004; Marketing Leadership Council, 2001). These performance measures are used to document the effects of marketing activities and how marketing activities can contribute to the company’s financial performance (Ambler, 2003; Rust et al., 2004; Rust et al., 2004). Moreover the interest in marketing performance measurement is also founded in the need to use relevant measures for improving marketing resource allocation (Glazier et al., 2004), which is the pivotal issue in this setting, e.g. performance measures used as methods for prioritization of OMC.

Development of hypotheses
Following the traditions of IMC, five OMC disciplines are argued for above, all together including 13 activities. It is believed that OMC cannot be reduced to one single discipline, and that the priority of OMC therefore needs to be considered and prioritized at a higher and more holistic level. Evidently, the priority of the five sub-disciplines should together form the composite “priority of OMC”; it is expected that this is already the case today.

**H1.** The priority of online MARCOM is determined by multiple OMC disciplines. On the one hand, it could be argued that offline and online MARCOM substitute each other, and on the other hand it could be argued that companies that already have potential to utilize marketing (offline) would adopt and see the possibilities in OMC more easily. Whatever stand one takes, there is a causal relationship between offline MARCOM and the priority of OMC. It is believed that this relationship is negative since new communication possibilities alone will not encourage larger marketing budgets.

**H2.** The usage of offline MARCOM is negatively related to the priority of online MARCOM. Besides the direct impact of both online and offline MARCOM on the priority of OMC, the usage of systematic methods for prioritization is expected to have a direct and positive effect. For example, the conscious and systematic usage of OMC prioritization methods should naturally lead to a higher priority of OMC.
H3. The usage of systematic methods for prioritization has a positive effect on the priority of OMC. It is evident that the adoption of systematic methods for OMC prioritization is determined by the usage of OMC itself. For example, only if there is a use for OMC is there a need to prioritize it. Offline MARCOM is also expected to have a positive effect, both due to the fact that the indicators included also have their relevance within offline MARCOM, and because the usage of offline communication will only strengthen the need to prioritize between online and offline communication.

H4. The usage of systematic methods for OMC prioritization is determined by the usage of both online and offline MARCOM. The current priority of OMC is obviously expected to explain the confidence in future potential (i.e. current prioritization of OMC is an indicator for an immediate potential as well as insights into the area). Further, the usage of OMC prioritization methods is expected to affect the future confidence in OMC, again using the argument that the usage of methods should hopefully give positive insights into the potential of OMC.

H5. The confidence in future OMC potential is affected positively by the current priority of OMC.

H6. The confidence in future OMC potential is affected positively by the use of methods for prioritization of OMC.

Method
The advertising agencies from which the data was collected are all listed in The Danish Central Business Register. Advertising agencies with more than five employees count 278 in total. Cleaning the database for redundancies and misplacements resulted in a total population of 231. A total of 129 agencies responded to the questionnaire, equal to 56 per cent of the population.

In November 2005, the person in charge of planning, strategy or account relations at the advertising agencies were contacted by phone. If this person was unreachable the receptionist was asked to forward the message. When an agency agreed to participate, an e-mail with a link to an online questionnaire was forwarded. An incentive was given, namely the possibility to sign up for a free descriptive report based on an analysis of the data. After two weeks a reminder e-mail was sent out.

Major Danish companies, i.e. with more than 200 employees, were drawn from the CD-direct databases (based on The Danish Central Business Register). The total number of companies included was 781. However, when cleaned for redundancies and misplacements, etc., the total came to 674. A total of 273 answered the questionnaire, equivalent to a response rate of 41 percent.

Initially, companies were contacted via mail in December 2005 requesting the person in charge of marketing to answer an online questionnaire. However, this resulted in far fewer than 100 respondents. Therefore, in January 2006 all companies were contacted by phone asking for the person in charge of marketing. If the person was unreachable, his or her e-mail address was requested. Consequently, an e-mail with a link to an online questionnaire was sent to all companies from which an e-mail address had been obtained. To increase the response rate, an incentive was given,
namely the possibility to sign up for a free descriptive report based on the data analysed.

The companies sample was checked for homogeneity based on specific background variables, including turnover, number of employees, title of respondent, and industry sector (B2B, B2C, wholesale, consulting or other services, and others). Overall discrimination using the OMC variables as independent variables and B2B versus B2C as dependent variable was checked with discriminant analysis as well as logistic regression. No significant overall discrimination was found. Further, the data was divided into two clusters using the SPSS two-step cluster approach: evaluating the above-mentioned background variable, no larger deviations were found between the two groups.

The questionnaire was constructed with all measures but two being evaluated on a five-point Likert scale. The two questions relating to the present and future budget amount allocated to OMC were asked on an 11-point scale but afterwards recoded into a five-point scale. The original questionnaire included 41 indicators and five background questions; after the initial component analysis and the validation of the model, 29 of the indicators were used (Table I).

Structural educational modeling (SEM) with partial least squares (PLS) was used due to its minimal requirement of sample size, residual distribution as well as exploratory suitability (Chin, 1998b). For the estimation of the structural equation model, the software SmartPLS (see http://smartpls.de) was used. Initially, a series of principal component analyses with Varimax rotation were carried out. Here all the indicators of the independent as well as dependent latent variables were used. Common recommendations (e.g. Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) > 0.6; significance of Bartlett’s test, communalities > 0.5, loadings > 0.5) and minimal cross-loadings were taken into consideration (Hair et al. 1998; Malhotra and Birks, 2006). Factors were judged based on the eigenvalue criterion as well as scree plot indication. Finally, for reliability an analysis based on Cronbach’s $\alpha$ was applied on the different factorial groupings. Any indication of competing models compared to the model hypothesized in Figure 1 was taken into consideration and applied to further analysis in the PLS estimation.

As noted previously, the PLS estimation was carried out in an exploratory manner and included all possible relations; these were then removed based on the hierarchical principle (i.e. eliminating one relation at the time, always taking the relation with the worst significance level, and then re-estimating the model). This procedure was carried out until all relations were significant at the minimum 0.05 level. In the PLS estimation, missing values were removed on a case-wise basis.

The significant models were judged based on the four criteria proposed by Hulland (1999). Item reliability was judged on strong outer loadings, meaning at least $>0.60$ and ideally $>0.70$ (Chin, 1998a). Convergent validity judged based on the composite reliability (CR) measure developed by Fornell and Larcker (1981), using the 0.70 threshold proposed by Nunnally (1978). In this case, composite reliability is superior to alpha since it does not assume tau-equivalence. Discriminant validity was judged upon the criteria that the variance shared between a construct and its measures should be greater than the variance shared between other constructs, demonstrated by the square root of the construct’s average variance extracted (AVE) being significantly greater than the correlations with other constructs. Model goodness of fit was evaluated on the
$R^2$ of all dependent constructs expecting at least at moderate $R^2$ equal to at least 0.33, as proposed by Chin (1998b).

**Results**

*Estimation of the model*

The estimated models are shown in Figure 2 for the companies and in Figure 3 for the advertising agencies. No significant causal relation is found from the construct “mobile communication” for the companies, and therefore it is not included in the model. As for the advertising agencies, “Online interactive communication” and “Online PR” are not included. They had no significant impact on any other variable in the model. The path correlations are unstandardized impacts, i.e. direct effects of a one-point change in an explanatory construct. The indices shown inside the construct circles are the means on the individual measures weighted by their outer weights. All are transformed from the original scale onto a 0-100 scale. All online disciplines perform rather weak (low indexes), also compared to offline MARCOM. This is due to the fact that OMC is still in its early phase of adoption. The advertising agencies perform better than the companies on all endogenous constructs, thus meaning that the agencies overall find OMC more important than the companies do. Further, methods for prioritization of OMC also score higher among the agencies than in the companies. The performance of “future potential of OMC” is high in both models but highest among the agencies, indicating a strong confidence in OMC. The reliability, validity, and goodness of fit of

![Diagram of model](image-url)

**Figure 2.** The estimated model of prioritization and potential of OMC for major Danish companies

**Notes:** Asterisks denote *p* < 0.05; **p** < 0.01; ***p*** < 0.001
the models are discussed below. Further, the results in relation to the proposed hypotheses are elaborated on. Finally the discussion focuses on the results in relation to the research questions set up in the Introduction.

Validation of the model

Item reliability based on outer loadings was satisfying; the companies were all above 0.70. However, two of the advertising agency measures were below 0.70 but above Chin’s (1998a) minimum criteria of 0.60, namely 0.65 and 0.67. Convergent validity was, as shown in Table I, far above the threshold with all composite reliabilities (CR) significantly above 0.70 (Nunnally, 1978).

Satisfying discriminant validity was demonstrated by the square root AVE of the constructs being significantly higher than the inter-construct correlations, as shown in Tables II and III.

The model goodness of fit was evaluated on the $R^2$s of the dependent constructs. For the firms an $R^2$ of 0.53 was found for “methods for prioritization of OMC”, 0.60 for “priority of OMC”, and 0.37 for “future potential of OMC”. For advertising agencies 0.42 was found for “methods for prioritization of OMC”, 0.52 for “priority of OMC” and 0.38 for “future potential of OMC”. All $R^2$ indicating reasonably solid explanations and good overall fit based on the 0.33 moderate $R^2$ criteria used by Chin (1998b).
<table>
<thead>
<tr>
<th></th>
<th>Online advertising</th>
<th>Online PR</th>
<th>Online interactive communication</th>
<th>Online relationship communication</th>
<th>Offline personal communication</th>
<th>Offline mass communication</th>
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<th>Future potential of OMC</th>
<th>Priority of OMC</th>
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<td>0.64</td>
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Notes: Diagonal entries are square root of AVE; Off-diagonal entries are inter-correlations among the constructs.
Table III. Discriminant validity for advertising agencies

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<tr>
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<th>Online relationship communication</th>
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<td>Priority of OMC</td>
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</table>

Notes: Diagonal entries are square root of AVE; Off-diagonal entries are inter-correlations among the constructs
Evaluation of the hypotheses

Even though not all suggested constructs could be validated in the two models, there was for both models multiple OMC disciplines that positively determined the overall priority of OMC. H1 is therefore accepted. For the companies, online advertising has the strongest direct impact closely followed by PR, relationship and interactive communication. In contrast, the advertising agencies see relationship communication as the most important driver for the overall priority of OMC. The advertising agencies show a surprisingly strong negative impact of mobile communication. This could indicate that mobile communication is not seen as a part of OMC, but instead is perceived as compensatory to the overall OMC priority.

It can be concluded that OMC priority is derived from a range of disciplines, and not only from the usage of simple websites. The results indicated that advertising agencies primarily take care of the relationship marketing discipline and to some extent advertising, whereas online PR and interactive communication is handled by the company itself, or at least not at the advertising agency.

H2 was confirmed as the advertising agencies had both personal and mass offline communication impacting negatively on the priority of OMC, whereas only mass communication had significant impact in the companies’ model. With regard to the priority of OMC, it is important to understand that offline MARCOM is compensatory to OMC disciplines (negative impact). A high general (offline) activity level will therefore not give higher priority on OMC; instead online communication needs to establish its own priority through focus on OMC disciplines.

H3 could only be confirmed for the companies, whereas no significant relation was found for the advertising agencies. Whereas advertising agencies have a higher usage of systematic methods (index 56 compared to 43 for companies), they do not seem to believe that it has an impact on the overall OMC priority. Hence the advertising agencies’ recommendation of OMC, and consequently the budget share of OMC, is not expected to be related to the usage of systematic prioritization methods, whereas the companies believe that the usage of systematic methods is in fact related to the overall OMC priority. Maybe agencies that want clients to prioritize OMC should reconsider the methods that they use and their approach in general.

H4 was confirmed in the sense that online advertising, online relationship communication and offline mass communication all had an impact on the usage of systematic prioritization methods in both models. Offline mass communication is maybe the field with the most existing quantifiable and systematic planning tools, and a positive relation was therefore expected. Strong offline planning traditions will therefore also impact on the usage of online methods. Online advertising contributed with the strongest impact in both models; again this is a measurement and planning “friendly” discipline. Further online relationship communication also gives a strong impact; once more this area has strong traditions on response and ROI measurement and planning, etc. Not surprisingly, PR and interactive communications do not have any impact; however, this is at the same time an indication for the need for more holistic prioritization methods.

H5 was confirmed as the current priority of OMC had a highly significant and strong impact on the confidence in future OMC potential. As expected both companies and advertising agencies that have an existing high priority of OMC will also be likely to have confidence in future OMC potential.
H6 could only be confirmed in the advertising agencies model. This indicates that usage of systematic methods will have an impact on the confidence in future OMC potential. In the companies model some indirect effects were found; however, surprisingly there were not any significant direct effects indicating that the companies’ usage of systematic methods itself will not result in confidence in future OMC potential.

In addition to the hypothesized impacts on the confidence in future potential of OMC, impact from offline personal communication and online relationship communication were also found direct in the companies model. This is seen as a further result of the confidence in OMC’s strong personal communication capabilities. The stronger the usage of personal communication in the overall mix, the stronger confidence in OMC’s future potential.

**Additional results**

Table IV summarizes the unstandardized direct and indirect effects of a one-point improvement in the driving variables on the dependent variables for the companies and advertising agencies. For example, the total effect of offline mass communication on priority of OMC is calculated as follows:

\[-0.15 + (0.22 \times 0.28) = -0.09.\]

As Table IV illustrates regarding the priority of OMC, the adoption of OMC at the company level is rather diverse, only mobile communication is not represented. Whereas the advertising agencies’ approach is narrower, it seems as they primarily rely on the comprehensive relationship capabilities of OMC and to some extent on advertising. This could either be a direct result of the clients’ demand or maybe more likely a lack of a holistic approach. Hence, companies that want to utilize the full and more holistic potential of OMC either do not seem to include their advertising agencies or the agencies do not have the competencies. As a result companies need to take responsibility themselves for holistic and full utilization of OMC. The above is only further supported by the total negative impacts. Where the companies only have a small negative impact from offline mass communication, there is strong negative impact from mobile communication, offline personal communication and offline mass communication among the agencies. Thus one could assume that the agencies think in budgets, and “competing” disciplines are therefore perceived as compensatory, whereas the companies have a more holistic attitude.

The total effects on companies’ priority of OMC and the performance indices are shown in Figure 4. The performance indices are calculated as the means of the individual measures weighted by their outer weights and then transformed from the original scale onto a 0-100 scale. With the objective to utilize OMC further, you would seek variables with a low performance (e.g. possibility for improvement) and at the same time reasonably high impact. Most OMC disciplines have rather low performance scores; however, online interactive communication, in particular, seems to fulfill both requirements, having both low performance and high impact. Companies would therefore gain from further prioritizing interactive elements as games, microsites, competitions, coupons, samples, contests and sweepstakes.

The total effects on methods for prioritization of OMC are similar to the direct effects. That offline mass communication has a strong impact seems obvious, since this
<table>
<thead>
<tr>
<th>Method</th>
<th>Companies</th>
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<td>0.16</td>
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<tr>
<td>Offline mass communication</td>
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<tr>
<td>Methods for prioritization of OMC</td>
<td>0.12</td>
<td>0.28</td>
</tr>
</tbody>
</table>

Table IV. Major Danish companies: total unstandardized direct and indirect effect of a one-point improvement in the driving variables on the dependent variables.
is where media planning arises from. Further, both online advertising and online relationship communication are fields that resemble offline disciplines a great deal and at the same time have existing metrics for measurement and planning. However, as discussed above, companies especially need to utilize OMC, and more peripheral disciplines as well as the usage of methods are important for this development. Therefore, as noted earlier, companies should emphasize the development of more holistic prioritization methods for OMC.

Regarding the confidence in the future potential of OMC, the advertising agencies to a large extent seem to follow the same pattern as for the exiting priority of OMC. The companies, however, seem to make a clear shift from online advertising being the predominant driver to online relationship communication being predominant. This shift from mass to more relational/personal communication is further supported by a direct impact from offline personal communication. Hence, the confidence in future potential of OMC is strongly driven by relationship communication, and consequently that this discipline is meeting its expectations. Fortunately online relationship communication performs rather weakly (index 33 compared to index 67 of offline personal communication) and there is therefore significant room for improvement.

**Conclusions, limitations and managerial implications**
All hypotheses are accepted in at least one model. The priority of online MARCOM is determined by multiple OMC disciplines; however, a more diverse range of disciplines is adopted by the companies. The usage of offline MARCOM is negatively related to the priority of online MARCOM, and offline and online communication are therefore compensatory: the tendency is by far the strongest for agencies. Maybe more surprising is that in the advertising agencies model mobile communication is not seen
as a part of OMC, but instead as compensatory to the overall OMC priority. The usage of systematic methods for prioritization has a positive effect on the priority of OMC, but only in the companies. Offline mass communication has a positive impact on the usage of systematic methods for OMC prioritization, properly related to the heritage of using systematic methods within offline mass communication. As expected, the present priority of OMC positively affects the confidence in future OMC potential. And also methods for prioritization of OMC positively affect the confidence in future OMC potential; surprisingly, however, in the companies’ model only indirect effects were found.

Where the companies prioritize a wider array of activities, the agencies do not seem to deliver the full OMC package, but primarily take care of relationship marketing discipline and to some extent advertising. Companies should therefore take on the responsibility of utilizing the full and holistic potential of OMC. They simply cannot expect that advertising agencies have holistic competencies. Moreover the agencies’ approach to online versus offline prioritization unsurprisingly is very much compensatory and disintegrative.

With the exception of online interactive communication, the companies prioritize all OMC disciplines almost equally. Still with a relatively high impact on the priority of OMC, it seems as online interactive communication would be the discipline to further prioritize, for example elements such as online games, microsites, competitions, coupons, samples, contests, and sweepstakes.

In the advertising agencies model the confidence in the future potential of OMC follows the same pattern as for the existing priority of OMC. The companies, however, make a clear shift from online advertising being the predominant driver of existing priority to online relationship communication being predominant in the future. With the rather weak performance of online relationship communication, there should be significant room for improvement.

Offline mass communication has a strong impact on methods for the prioritization of OMC. This seems obvious as this is where media planning originates. Also online advertising and online relationship communication are fields that much resemble offline disciplines and at the same time have existing metrics for measurement and planning. However, as discussed above, companies need to take on the responsibility and utilize the holistic potential of OMC, and therefore be on the outlook for more holistic prioritization methods.

This research is based on one single geographic market, and the generalization to other markets might be questioned. Therefore further research needs to address this issue. The geographical limitation has also meant a limited sample and consequently uncertainty in relation to sample size. Furthermore the author would like to emphasize the need for further work within concrete and practical methods for holistic prioritization of offline and online MARCOM.

References


New Media Age (2005), “MMS and WAP use increases although ads fail to catch on”, *New Media Age*, December 8.


About the author
Morten Bach Jensen is a Senior Business Researcher at the Danish industrial pump manufacturer Grundfos. He is also affiliated as an Industrial PhD Fellow with both The IT University of Copenhagen and Copenhagen Business School. He has worked for the past twelve years in marketing at major industrial companies, in teaching and academia as well at a major consultancy firm. Morten holds a BSc in Engineering and an MSc in IT. Morten Bach Jensen can be contacted at: mb7@itu.dk

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