How Will Online Affiliate Marketing Networks Impact
Search Engine Rankings?

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ABSTRACT AND KEYWORDS	
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Abstract

In online affiliate marketing networks advertising web sites offer their affiliates revenues based on provided web site traffic and associated leads and sales. Advertising web sites can have a network of thousands of affiliates providing them with web site traffic through hyperlinks on their web sites. Search engines such as Google, MSN, and Yahoo, consider hyperlinks as a proof of quality and/or reliability of the linked web sites, and therefore use them to determine the relevance of web sites with regard to search queries. In this research we investigate the potential impact of online affiliate marketing networks on the ranking of advertisers' web sites in search results. This article empirically explores how seven different affiliate marketing networks affect the rankings of the advertising web sites within web search engines. The field study followed intensively seven online affiliate marketing networks for twelve weeks after their launch. The results indicate that newly started affiliate networks effectively improve the rankings of advertising web sites in search engine results. Also, it was found that the effects of affiliate marketing networks on search engine rankings were smaller for advertising web sites operating in highly competitive markets. Another finding was that a growth in visitors coming from search engines was present as a result of the improvement of search engine rankings. Finally, the results indicate that cost-benefit metrics associated with affiliate marketing programs, such as the average marketing cost will decrease when the positive effects of affiliate marketing on search engine rankings are taken into account.

Introduction

Online affiliate marketing is a method of promoting web businesses in which a third party, an affiliate, is rewarded for every visitor, subscriber and/or customer it provides through hyperlinks (references to the web business) on his web site. It can be seen as a modern variation of the practice of paying finder's-fees for the introduction of new clients to a business. Compensation may be made based on a certain value for each visit (pay per click or CPC), registrant (pay per lead or CPL), or a commission for each customer or sale (pay per order or CPO).

In response to user queries, web search engines employ information retrieval algorithms to display links to Web pages deemed relevant to the query. Most search engines (including the most popular ones as Google, MSN, and Yahoo) confirm analyzing the presence and characteristics of hyperlinks on the world wide web to determine the relevance of a URL (Uniform Resource Locator) to a specific search query [4]. The underlying reason for this is that links to a web site are considered an indication of quality, relevance and/or reliability of the web site linked to.

Affiliate marketing networks typically exist of one single advertising web site (the advertiser or merchant) and multiple affiliated web sites with hyperlinks to the advertiser's web site (the affiliates). Given the importance assigned to hyperlinks by search engines, affiliate marketing networks – or more precisely the hyperlinks on affiliates' web sites – might positively influence search engines' assessments of advertisers' web sites. However, little empirical research is done to investigate this relationship. This article empirically explores how affiliate marketing networks affect search engine rankings.

The Logic and Impact of Affiliate Networks

By offering rewards for the provision of visitors, leads and/or sales, advertising web sites will attract affiliates which will provide them with web site visitors. The higher the rewards offered to affiliates, the more affiliates will place a hyperlink on their web sites to provide the advertiser with web site visitors in exchange for previously defined rewards. Affiliates place hyperlinks on their web sites to provide the advertising web site with visitors for which they are being offered revenues [6, 8]. This leads to an increase in the number of inbound links of the advertising web site. Since web search engines analyze inbound

links to determine the relevance of web sites to search queries, the web site will be regarded as more relevant and therefore ranked higher within search results [2, 10]. Since users of search engines primarily notice web sites which are ranked high in the search results, the higher ranking of the advertisers' web site will increase the amount of traffic coming from search engines [1, 6]. Affiliates place hyperlinks on their web sites to provide web-based businesses with web site visitors. When the affiliate marketing network grows and the amount of affiliates increases, there will be a positive development in the total amount of web site visitors provided by affiliates [5, 7].

Typically, costs and benefits of affiliate marketing programs are measured on a constant basis and therefore well known. Currently however, only web site visitors provided directly by affiliates are being measured, as well as all related leads and sales [7]. When the effects of affiliate marketing on search engine rankings are also taken into account, the total amount of benefits (in terms of visitors, leads and/or sales) related to affiliate marketing will increase. Affiliate marketing can cause an increase in web site traffic coming from search engines. With regard to the estimated value of this increase, visitors coming from search engines will be less or more valuable depending on the type of web search performed. With regard to the typology of search queries developed by Broder [3], search engine users performing a transactional search query will be most valuable. Since the users are specifically willing to perform some web-mediated activity, chances are relatively high that the user's visit will result in a lead or sale.

The logic presented in this research is described in Figure 1. Based on this logic empirical research is carried out that will be described in the next section.
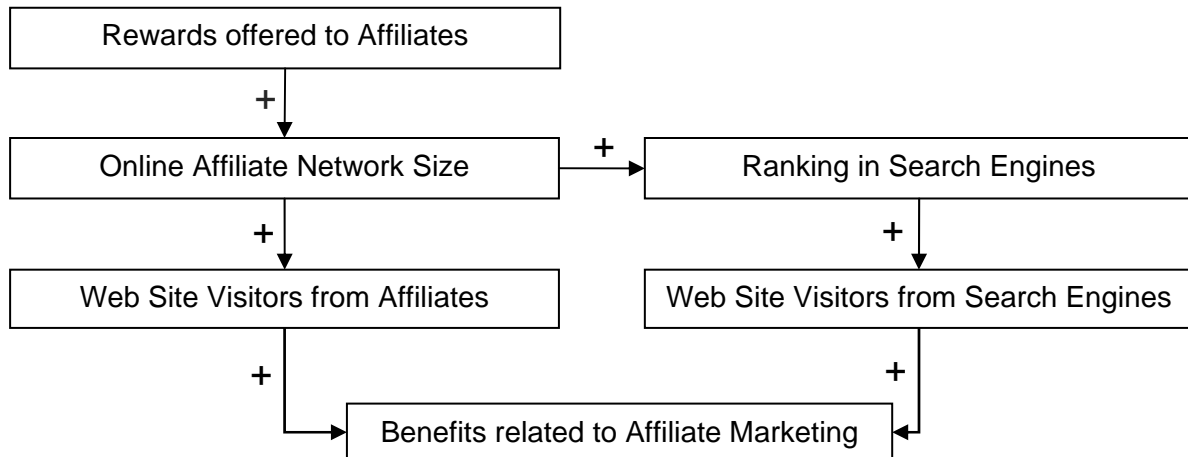
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┌─────────────────────────────────┐
│   Rewards offered to Affiliates  │
└─────────────────────────────────┘
                │
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│   Online Affiliate Network Size  │────────▶│    Ranking in Search Engines     │
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│  Web Site Visitors from Affiliates│         │ Web Site Visitors from Search Engines│
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Figure 1: The impact of online affiliate marketing networks

Seven longitudinal case studies

A longitudinal case study approach was used in the form a multiple case study of seven advertising web sites, which were monitored during the first twelve weeks in which they started to develop an affiliate marketing network [9]. The number of seven cases was chosen to have empirical data on web sites from various business sectors. This was important with the eye on the related differences in search queries entered within the search engines to find the web site. Additionally, since the affiliate marketing networks of seven different web sites would presumably not develop with the same speed, the choice for seven cases allowed insights in the importance of the size of the affiliate network for the registered effects on search engine rankings. The research period of twelve weeks was chosen to assure that all search engines' web crawlers had sufficient time to notice and register all new hyperlinks placed by affiliates. In this way it was made sure that the newly developed affiliate marketing networks would be noticed by all web search engines at the end of the research period. Empirical data were collected via the affiliate marketing broker M4N in the Netherlands. The M4N company provides advertisers and affiliates with a technical platform and administrational support for their affiliate programs. Seven web sites from various business sectors gave permission to analyze their newly started affiliate marketing programs during the first twelve weeks of its development. Additionally, the web sites granted access to historical and current data on web site traffic.

In order to measure the ranking of the studied web sites in web search engines, the search results for three relevant keywords in the ten most used search engines in the Netherlands were registered weekly. The number of three keywords was chosen since most of the web sites are designed for search engine optimization for a comparable number of two to five keywords [12]. Interviews with the participating advertisers were held to determine three keywords which were considered highly relevant to the web site. Since the ten most used web search engines in the Netherlands represent more than 95 percent of all performed web searches, the addition of more search engines would be of no much added value.

Information on the number of affiliates, the amount of visitors provided by affiliates and related costs, were gathered from the M4N Platform. The value of web site visitors were estimated using the opportunity costs to acquire visitors performing similar search queries from the Google AdWords advertising program.

Lessons Learned

In this section the empirical data are presented and lessons learned are presented.

Rewards and Size of Online Affiliate Networks

Table 1 presents the differences in the growth and size of affiliate marketing networks and shows these are not directly related to the rewards offered to affiliates. In fact, it appears that the market in which the web sites were active (business-to-business vs. business-to-consumer) is the most important factor explaining these differences.

Table 1: rewards offered to affiliates by advertising web sites and size of the newly developed affiliate marketing network at the end of the twelve week research period.

Case	Reward in cost per click (CPC)	Size Affiliate Network after 12 weeks in number of hyper links	Type of market (B2B / B2C)
1	€ 0,38	34	B2B + B2C
2	€ 0,31	37	B2C
3	€ 0,46	17	B2B
4	€ 0,38	44	B2C
5	€ 0,38	22	B2C
6	€ 0,46	11	B2B
7	€ 0,54	30	B2C

Figure 2 presents the growth and size for each of the investigated online affiliate networks. The most presumable explanation for the relative smaller affiliate marketing networks of cases 3 and 6 is the limited amount of web sites that can potentially apply as affiliate in the business-to-business market. This appeared to be the case when verified against all web sites that were made aware of the new rewards offered to affiliates: in the M4N network, less than 10 percent of all active affiliates are active in the business-to-business market. Consequently, we propose the first lesson.

Lesson 1: *The increase in the size of an online affiliate marketing network is positively influenced by the amount of potential affiliates active in the advertising web sites' business sector.*
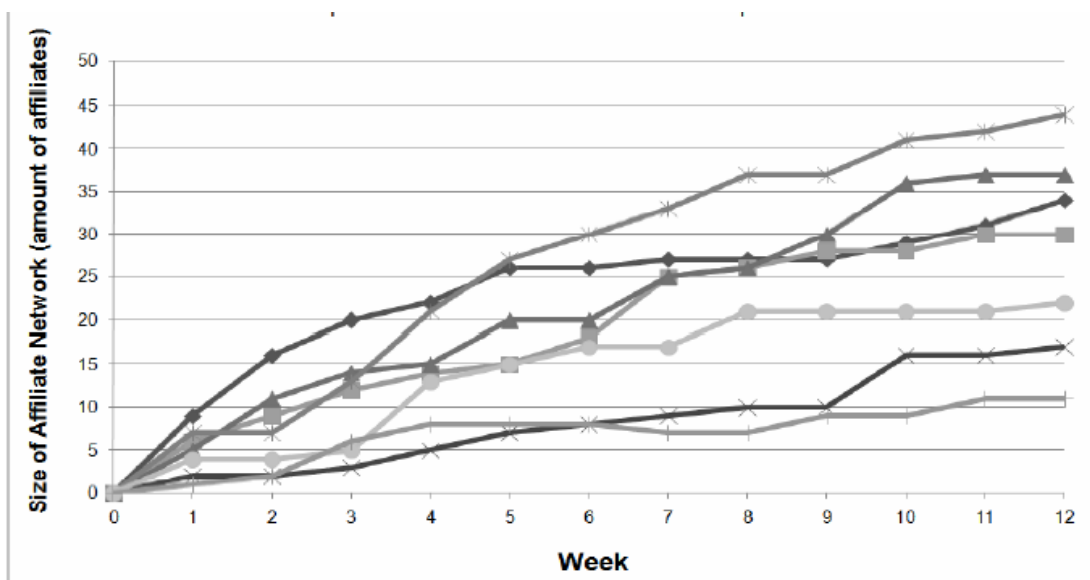

Figure 2: growth of the seven investigated online affiliate networks
in the first twelve weeks after their launch.

Ranking in Search Engines

For all seven cases, rankings equally improved. Moreover, the amount of very high rankings improved clearly: of all seven cases, no web site had any ranking in this category at the beginning of the research period. At the end of the research period, 4 out of 7 cases had a very high ranking on at least one of the three monitored search queries.

6

In one case, the web site's URL was listed 12 times in the top three search results within all thirty retrieved search results. Differences in measured values between the various case studies are remarkable in two ways. Firstly, the web sites with the largest affiliate marketing networks experienced the largest absolute improvement in overall search engine ranking scores. This finding is consistent with the research finding that an increase in the number of inbound affiliate marketing links will improve the search engine rankings of the advertising web site.

Lesson 2: *The development and growth of an affiliate marketing network improves the search engine rankings of advertising web sites.*

The second difference between the different cases regards to three web sites that experienced substantial increases in the category of very high rankings within their search results. Notably, these web sites were all active in the education and training sector. A possible explanation is found in the limited number of web sites (and thus potential affiliates) dealing with the specific topic of education and training. Hence, the limited amount of web sites could result in a lower degree of competition for top search engine rankings. More general, this finding implies that specific business sectors can be identified for which the effects of affiliate marketing on search engine rankings will be more or less than average, leading to:

Lesson 3: *The effect of affiliate marketing networks on search engine rankings is dependent of the level of competition in the advertising web site's business sector.*

Web Site Visitors
Since users of search engines are more likely to notice highly ranked search results, the improvement in search engine rankings was expected to have a positive effect on the amount of traffic coming from search engines. The empirical findings indicate that – for six out of seven cases – the amount of visitors coming from search engines increased over the research period.

Lesson 4: *As a result of the improved search engine rankings, the total amount of web site visitors coming from search engines will increase.*

In one single case the amount of visitors decreased. The conceptual model does not provide any explanation for this decrease. Since the search engine rankings effectively increased over the research period, the company was asked for possible explanations in an interview. The company then mentioned seasonal influences (interest for its products appears to be higher in wintertime) as the most probable explanation. Thus, it appears that seasonal influences also play a role when it comes to the total amount of web site visitors coming from web search engines. Therefore, a new lesson is developed.

Lesson 5: *The relationship between search engine rankings and the amount of visitors coming from search engines is subject to seasonal influences.*

Visitors from Affiliates

Every single affiliate will provide the advertiser with an additional amount of web site visitors per period of time. Hence, when web sites apply for affiliate and the size of the overall affiliate marketing network increases, this will positively influence the total amount of web site visitors coming from affiliates. The empirical findings clearly indicate a positive relationship between the size of an advertiser's affiliate network and the overall amount of web site visitors coming from affiliates. Nevertheless, in given weeks, some of the cases experienced a decrease in the total amount of visitors coming from affiliates, while at the same, the overall size of their affiliate networks increased. However, since these occurrences differed from case to case in various ways, there is no important reason to assume that these are related to a more general explanation.

Lesson 6: *An increase in the size of an affiliate network will positively influence the total amount of web site visitors coming from affiliates.*

Total Benefits of Online Affiliate Marketing

The total benefits related to affiliate marketing consist of all web site visitors coming directly from affiliates (1) and indirectly through the increase in visitors coming from web search engines (2). In current affiliate marketing programs, marketing costs per web site visitor (CPC), lead (CPL) and order (CPO) are determined by the total amount of benefits associated with all visitors coming directly from affiliates and therefore do not include the effect affiliate marketing networks have on search engine rankings and the related increase in visitors coming from web search engines. Yet, when the increase in

web site visitors coming from search engines is also considered part of the overall benefits associated with affiliate marketing, cost-benefit measures change and marketing costs per web site visitor (CPC), lead (CPL) or order (CPO) will decrease.
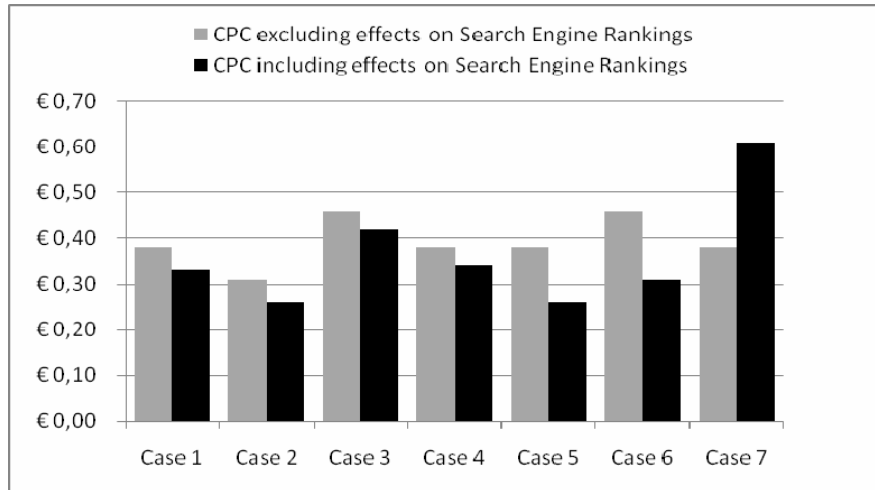

Figure 3: changes in marketing costs per visitor (CPC) when the effects of affiliate marketing on search engine rankings and related visitors coming from search engines are taken into account.

Figure 3 shows how the effects of affiliate marketing on search engine rankings impact the cost-benefit metric CPC over the complete twelve-week research-period. As has already been discussed, one of the research cases experienced a negative development in the amount of visitors coming from search engines as a result of seasonal influences. Hence, in this case, the effect on the CPC metric is negative. Since the decrease in visitors is presumably not related to the development of an affiliate marketing network, this case was left out for the cost/benefit analysis. Although the individual results vary, all other cases experienced a decrease in their costs per visitors. The extent of this decrease ranges from 10 to 30 percent for all distinctive cases.

Lesson 7: *Cost-benefit metrics of affiliate marketing (such as CPC, CPO and/or CPL) decrease when the positive effects of affiliate marketing on search engine rankings are taken into account.*

The value of additional visitors coming from search engines will vary depending on the intention of their visit. The search query used to find a particular web site is typically

related to this intention. Therefore, there is a relationship between the type of search query – informational, navigational or transactional [3] – and the value of web site visitors coming from search engines. Hence, this part of the research seeks to explore the value of the additional visitors coming from search engines based on the search queries that were used by visitors to find the web site.
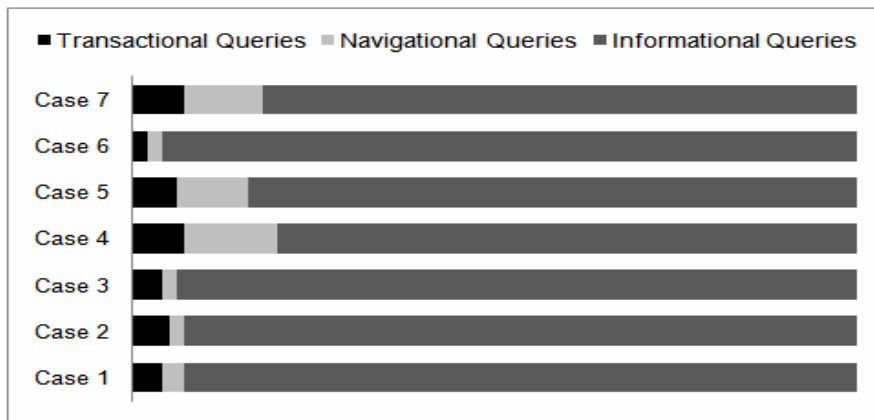

Figure 4: distribution of search queries used to find the various advertising web sites during the twelve-week research period.

Figure 4 shows the distribution of all search queries used to find the advertiser's web sites during the research period. For all cases, most of the search queries used to find the web site were entered to acquire some information assumed to be present somewhere on the internet. Transactional search queries accounted for 2 to 7 percent of all search queries, whereas the presence of navigational search queries differed from 2 to 11 percent, depending on the various cases. The relative high proportions of navigational search queries of cases 4, 5 and 7 are presumably related to the greater brand awareness of these web sites.

The results indicate that the acquisition costs of similar visitors from sponsored links varied substantially between the various cases. The most plausible explanation for this finding is that there are differences in the popularity and level of competition for specific keywords in advertisement space which influence the acquisition costs of web site visitors. Thus, all web sites operating in markets with highly competitive on-line communication channels experience higher costs when buying a similar amount of web site traffic from advertisement space within search engines. Therefore, the effect of affiliate marketing programs on search engine rankings may be more valuable for web

10

sites operating in markets where the acquisition of visitors from sponsored links is relatively high.

Lesson 8: *The value of additional visitors coming from search engines is determined by the competition in a web sites' specific business sector and the related demand for sponsored links in web search engines.*

Conclusions

This article presents a number of lessons that are useful for designers and users of online affiliate marketing networks. The results indicate that newly started affiliate networks effectively improve the rankings of advertising web sites in search engine results. Also, it was found that the effects of affiliate marketing networks on search engine rankings were smaller for advertising web sites operating in highly competitive markets. However, the concept of search engine rankings, although increasingly recognized as important, is not yet fully elaborated in theory. Additional research is required to further define this concept and to develop sound research methodologies to measure (changes in) search engine rankings. Also, by extending the amount of data or the length of the research period, the effects of affiliate marketing on search engine rankings can be determined more precisely in future research.

A second finding of this research was that a growth in visitors coming from search engines was present as a result of the improvement of search engine rankings. Nevertheless, this growth was not linear over time and in one single case a decrease was identified. The findings for this specific case were explained by the seasonal influences on the amount of visitors coming from web search engines. This has lead to the development of a new hypothesis on the relationship between search engine rankings and the total amount of web site visitors coming from search engines.

Thirdly, the results indicate that cost-benefit metrics associated with affiliate marketing programs, such as the average marketing cost per web site visitor (CPC), per lead (CPL), or per order (CPO) will decrease when the positive effects of affiliate marketing on search engine rankings are taken into account. In that manner, the CPC of the various cases in this study decreased with 10-30 percent when these effects were taken into

account. This result can instigate practical implications to merchants and affiliate marketing brokers, since the extent of the decrease is of such a size and importance that the effect can simply not be neglected.

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