

# Implementation Techniques of Search Engine Optimization in Marketing Strategies Through the Internet

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**Abstract:** The number of internet users around the world continue to grow and will continue to grow along with advances in communications technology. Communication technology which is now headed to the fourth generation (better known as 4G), allowing access into the rapidly growing information technology. Marketing media products and services not just print and electronic media. Nowadays marketing is also using the internet. Internet media is a choice for sellers of goods and services to increase sales. To make a website visited by many internet users are not just build a good interface only. Web sites that serve as a medium of marketing must be built with the correct rules, so this website can be optimized as a marketing media. The good rules in building website as a marketing media is how the content of the website indexed in search engines like google. Why is google, because 83% Internet users around the world using Google as its search engine. Search engine optimization, better known as Search Engine Optimization (SEO) is an important rule in order to more easily search the internet site with keywords pengguna we want.

**Keywords:** SEO, Search Engine Optimization, Internet, Internet Marketing, Google, Search Engine

## Introduction

Information technology combined with the communication technology to collaborate to make internet access (interconnection networking) becomes easy and inexpensive. The combinations of these two technologies are more familiar with Information and Communication Technology (ICT) makes a medium that is very familiar with today's modern society.

In today's information age is characterized by easy search and access of information, especially the internet become one of a marketing medium. Marketing using the Internet is effective and can also reduce the cost compared with the television media, for example. Not only that, in addition to the relatively low cost also extended its reach to the rest of the world.

The survey results show growth in Internet usage in Indonesia continues to increase. In 2012, the penetration of Internet usage in urban Indonesia reached 24.23% (MarkPlus, 2012). This represents tremendous potential, especially when compared with the total population of

Indonesia reached 260 million and also a very large number when compared to the penetration of the Internet in countries around Indonesia. Both in Southeast Asia and Australia.

What is the problem of internet marketing today? The problem is if someone searches for a keyword in the search engines, whether of our website will appear on the first page of the search engines? How to bring our website to the first page of search engines? For that we need to learn Search Engine Optimization (SEO).

How important is SEO in internet marketing? If the businesses that rely on the Internet (online business), then the answer is very important. Also be important if businesses are looking for other markets through the internet penetration.

Looking through the Internet is not just a market to sell via the internet. But much more than that is how to attract visitors as many come to our website. If likened to an offline store, the strategic location that havemany peoples will make it famous for goods and services it sells.

## Literature Review

### Marketing

In his book *Essentials of Marketing* Jim Blythe, said that marketing is the term given to all activities that occur between organizations/companies with customers. This is a fundamental concept of a marketplace, where buyers and sellers come together to trade (or exchange) are mutually beneficial (Blythe, 2005).

Two other terms of marketing the most widely used are:

- Marketing is the management process that identifies, anticipates and meets the needs of customers in an efficient and profitable. (UK Chartered Institute of Marketing)
- Marketing is the process of planning and implementation of the concept, pricing, promotion and distribution of ideas on goods and services to create exchanges in order to meet the needs of individuals and organizations. (American Marketing Association)

### Internet Marketing

Internet marketing is also known as digital marketing, web marketing, online marketing or e-marketing. In a book written by Alex Trengove Jones, Anna Malczyk and BustinBeneke entitled *Internet Marketing; A highly practical guide to every aspect of internet marketing* says:

“Internet marketing-often called online marketing or e-Marketing-is essentially any marketing activity that is conducted online through the use of internet technologies. It comprises not only advertising that is shown on websites, but also other kinds of online activities like email and social networking. Every aspect of internet marketing is digital, meaning that it is electronic information that is transmitted on a computer or similar device, though naturally it can tie in with traditional offline advertising and sales too (Jones *et al.*, 2011)”

So every marketing activity conducted online by using internet technology is internet marketing. It includes online activities such as email and social networking.

Differences between internet marketing and traditional marketing is that internet marketing is more reasonable, less expensive, faster and reach more customers and a great way for businesses who want to enter the local and international markets (Mirzaei *et al.*, 2012).

### Google Search Engine

In 1996 Larry Page and Sergey Brin, Stanford University students begin to develop a backrub. It is a new concept introduced search engine manufacture. It is the forerunner to the birth of Google (GI, 2010).

The search engine Google became most famous search engines on the internet. Based on a survey conducted in the project of the Pew Internet Search Engine Use 2012 to March 2012 says:

“Google continues to dominate the list of most used search engines. Asked which search engine they use most often, 83% of search users say Google. The next most cited search engine is Yahoo, mentioned by just 6% of search users. When we last asked this question in 2004, the gap between Google and Yahoo was much narrower, with 47% of search users saying Google was their engine of choice and 26% citing Yahoo (Purcell *et al.*, 2012)”

### How Google Works

Google runs on a distributed network of thousands of cheap computers and can perform parallel processing quickly. Parallel processing is a method of computation in which many calculations can be performed simultaneously, significantly speeding up data processing (Price and Sherman, 2001). Google has three important parts:

- Googlebot, a web crawler that finds and retrieves web pages information, such as contents, meta tags, title and so on (Farahmand *et al.*, 2011)
- Google Indexer, indexing of every word on every page and stores the resulting index in a large database
- Query processor, which compares the search query by a user to index and recommend documents that are considered most relevant

### What is Search Engine Optimization (SEO)

SEO is a series of processes carried out systematically in order to increase the volume and quality of traffic through search engines to a particular website by utilizing the mechanism of action or the search engine algorithms. The goal of SEO is to place a website on the top position, or at least the first page of search results based on specific keywords targeted. There are over 200 different parameters used by Google to calculate a page's rank (Evans, 2007). Logically, the web site that occupies the top position in search results have a better chance to get visitors.

In line with the growing use of the Internet as a business medium, SEO needs have also increased. Being at the top of search results will increase the chances of a web-based marketing company to gain new customers. This opportunity is used a number of parties to offer search engine optimization services to companies that have a base in the internet business (GI, 2010).

## Objectives and Benefits

The purpose of this study is to determine how to design a good internet site so that if someone searches for items by entering a keyword into the Google search engine, it is expected that the website will appear on the first page of Google.

By appearing on the first page of the Google search engine, then the website will most likely get a lot of visits.

The more visitors, the more likely the occurrence of transactions for goods/services sold on the website.

## Results

### Domain Name Selection

The initial step in internet marketing is quite important is the selection of a domain name. Because the selection of an appropriate domain for goods and services to be marketed very influential on the internet search. Why is it important?

First, it is important to predict the number of words or keywords that will be typed or clicked by the user of a domain name. Second, the selection of appropriate domain will make users more accustomed to do with the products/services to be typed and clicked.

In the principle, any domain name that is most closely with keyword search then it would be displayed by the Search Engine at the top position.

Microsoft and the University of Stanford in his research Domain Bias in Web Search, proving that the selection of an appropriate domain will increase the user's search by 25 (Jeong *et al.*, 2012). Similarly, research conducted by SEDO (2011).

In this case study is the creation of websites to sell chocolates (*coklat*) online, with domain selection pondokcoklat.com.

### Keyword Selection

The next step is to determine the keyword of the main keyword. The main keyword is *coklat* (chocolate). Next determine the keywords derived from the *coklat* keyword.

Determination of the right keywords will help many users to come to our website. In the book *Internet Marketing; A Highly Practical Guide to Every Aspect of*

*Internet Marketing* in chapter I say the right keyword selection will promote and ensure your web online to the right people (Jones *et al.*, 2011).

Google provides the tools that we can use to predict how many internet users typing the keyword "*coklat*". This is important because this is where we can estimate how much the user the opportunity to come to our website. For information, from the Dictionary of Indonesian, writing the correct word for *coklat* is "*cokelat*". But try to compare if the entered keywords into the planner, which is the most many words in the user type in Google search engine.

Now we try to enter the keyword "*coklat*" and "*cokelat*" in the Keyword Planner (<https://adwords.google.com/ko/KeywordPlanner>). Previously we also specify that only the marketing area is Indonesia.

From the result, keyword "*coklat*" is estimated at 9,900 users and "*cokelat*" only 2,400 a month only. See also the level of competition they are still low. That is a chance to get users coming to our website from the number of users and the degree of competition is enormous.

After making sure that the keyword *coklat* is better than *cokelat* though correct in Indonesian is *cokelat*, then we look for the keyword derivative of *coklat* itself.

From keyword planner we get there are 566 derivatives of the keyword "*coklat*". Because pondokcoklat.com do not sell or do not use all the keywords, so we must choose keywords which correspond to products sold or articles that will be made later.

The first derivative select keywords we consider to be the main keywords that we select are: PondokCoklat (Cottage Chocolate), tokocoklat (chocolate shop), coklatkesehatan (chocolate's health), coklat praline (chocolate pralines), anekaoklat (a variety of chocolate), coklat dark (dark chocolate), coklat import (imported chocolate), minumancoklat (chocolate drinks).

### Meta Tag

Meta tag is the description from the website which consists of a few main keywords. Meta tag description is important because Google will use it as a description of the web page. Adding description Meta tags for each web page is a good practice when Google cannot make a good description on our website (GI, 2010).

Meta tags that we use is "*TokoCoklat, PondokCoklat.com. Kami menjualanekacoklat, coklat import, minumancoklatmasukcoklatkesehatan /terapi.*" (We use Indonesian language in meta tags because we use derivatives keyword from "*coklat*" in Google Keyword Planner. Meta tag in English is "*Chocolate Shop, PondokCoklat.com. We sell a range of*

chocolate, imported chocolate, chocolate drinks including chocolate health/therapy.”).

### SEO on Page

SEO on Page is maximal optimization on the website itself. Some criteria of SEO on Page are:

#### Selection of SEO Friendly Templates

Many existing templates either free or paid. We are using a paid template because of the features for the online shop is very complete. We use WPTOKO version 3.1. It is based on Wordpress template.

#### Use of Meta Tags

As discussed earlier, will be placed the metadescription as a meta tags so that Google easy to make a good description for our website.

#### Fix Permalink in Posts

By default permalink in the post is using numbers. That number should be changed to keywords as found earlier in the keyword planner. For example like this: <http://pondokcoklat.com/56748> converted into <http://pondokcoklat.com/coklat-silverqueen-bites-almond>. Try unique permalink that does not same as similar products sold in other online stores. Because Google prefers unique permalink.

#### Use of Keywords in Product Page or Article

The selection of the right keywords will be implemented in the posts on the web page. So in every page should be contain one or more keywords from Google Keyword Planner

#### Keyword Placement

There are some guidelines in the use of SEO keywords:

- The title of the product or article posts must use the keyword
- The article link must contain the keyword
- Meta tag/meta description must contain the keyword
- The first paragraph of article must contain the keyword
- And use a unique image that has been alt tag using the keyword

#### Use Unique Images

In the rules of SEO to get high scores use unique images. So do not use the images found on internet, but use the images created by yourself.

In [pondokcoklat.com](http://pondokcoklat.com), almost all product images using our photos, except for articles and some product only.

### Speed Up Web Page Loading Time

The template that we use is wptoko version 3.1. Wptoko is quite fast loading template. We also hosting it at HostGator, one of the hosting service that is fast enough. The images that we use also use images with a small size due to avoid long loading time.

### The index Number Generated

To see the existing indexes on a live web just type the command “site: xyz.com” on Google search engine. By entering the command “site: Pondokcoklat.com”, the index gained as much as 211 index. The more index is better.

### SEO Score

How SEO score of a web [pondokcoklat.com](http://pondokcoklat.com)? Many free tools are available which can be used for calculating the SEO score of a web.



Fig. 1. SEO Score for [pondokcoklat.com](http://pondokcoklat.com)

Let's see the results of calculations from <http://whois.domaintools.com/>.

Seen from Fig. 1, SEO score from pondokcoklat.com is 91%. Excellent value, meaning pondokcoklat.com has been made with the correct SEO rules.

#### Visits Traffic Analysis

Based on the results of flag counter that we use on the web to calculate the amount of visitors. Domain name pondokcoklat.com purchased on February 22, 2013. Figure 2 shows at July 2013, only 4 months from purchased date, unique visitors per day is

between 87-190. This traffic is pure from SEO implementation. We are not using backlink or advertisement.

#### Position in Google Search Engine on Certain Keyword

Although not on the first page (using default Google search settings: 10 items per page) but pondokcoklat.com position on the keyword "coklatdelfi" (tested on July 31, 2013) was already in position 22. It has been very good considering the age of the web has not even 4 months.

## This counter has been viewed 35,81

Page: < 1 2 3 4 5 >

Date	New Visitors
July 19, 2013	159
July 18, 2013	190
July 17, 2013	188
July 16, 2013	157
July 15, 2013	161
July 14, 2013	142
July 13, 2013	127
July 12, 2013	156
July 11, 2013	134
July 10, 2013	150
July 9, 2013	151
July 8, 2013	113
July 7, 2013	97
July 6, 2013	87
July 5, 2013	118
July 4, 2013	142
July 3, 2013	104
July 2, 2013	121
July 1, 2013	107
June 30, 2013	107

Fig. 2. Visitors per day

## Conclusion

From the results of research on the application of Search Engine Optimization (SEO) on Website creation can be summed up as follows:

- The design of good websites in accordance with the rules of SEO can increase visitor traffic in a relatively fast (a few months)
- With high visitors to online stores that use SEO, can increase sales of goods/services
- This research is based on current Google SEO algorithm. If Google change the algorithm, maybe the result will be different

## Author's Contributions

All authors equally contributed in this work.

## Ethics

This article is original and contains unpublished material. The corresponding author confirms that all of the other authors have read and approved the manuscript and no ethical issues involved.

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