

# International Journal of Research in Marketing Management and Sales



E-ISSN: 2663-3337  
P-ISSN: 2663-3329  
[www.marketingjournal.net](http://www.marketingjournal.net)  
IJRMMS 2022; 4(2): 40-47  
Received: 20-06-2022  
Accepted: 25-07-2022

**Nektarios Stylianou  
Makrydakis**  
Department of Business  
Administration, University of  
West Attica, Athens, Greece

**Ioannis Skopeteas**  
Department of Cultural  
Technology and  
Communication, University of  
the Aegean, Mytilene, Greece

## Analyzing E-shop onsite optimization factors in the context of E-commerce search engine optimization

**Nektarios Stylianou Makrydakis and Ioannis Skopeteas**

**DOI:** <https://doi.org/10.33545/26633329.2022.v4.i2a.111>

### Abstract

Search engine optimization of e-shops by using onsite optimization factors is an important part of the search engine marketing process and in particular of SEO category. Onsite optimization process is used by e-shops to improve their ranking in search engine results. Onsite optimization techniques convert and upgrade e-shops, make them more competitive and increase the chances of attracting internet users and converting leads into customers. This study focuses on the appropriate factors to be carried out within webpages code and content management systems of e-shops in order each webpage to achieve higher ranking position on search engine result pages. Search engine optimization is a major pillar of digital marketing and in this context the paper reveal and underline all important factors any e-shop has to implement so as to take viable ranking position on search engine results which lead to visiting of appropriate target groups and convert them into customers. In this paper researchers defined the term onsite optimization, explains its role in the ranking of search engines, reviewed previous studies on using techniques onsite optimization and stated recommendations for better use of these factors. The literature review indicated that the effective implement of onsite optimization improves overall search engine optimization strategy of e-shop which reflects higher ranking position and better cash flows.

**Keywords:** Onsite optimization, SEO, E-shop, search engine marketing

### Introduction

Any search engine research appear a large number of results consisting of organic and paid results. Organic considered to be the «natural» results and the best answer to any user's «question». For these results, websites and e-shops do not pay or have any costs (Meola, 2016) <sup>[17]</sup>. On the contrary, paid results refer to advertisements. In Google, the largest search engine, search engine results pages (SERP) consist of organic results, paid advertisements, featured snippets, knowledge graphs, local packs, image results, video results, twitter results, top stories, google shopping results. E-shop webpages that appear in high ranking position in the organic results achieve higher click trough rate which implies more potential customers (O'Neill, Curran, 2011) <sup>[23]</sup>.

Search engine optimization (SEO) is the process of optimizing e-shops and refers to all actions to make them friendly to search engines in order to optimize ranking of organic results for specific words or key phrases (Zhang, Cabage, 2017) <sup>[45]</sup>. SEO is the process that involves the design and content of online store in order to get a better ranking in organic results from which a large number of visitors come (UplandKapost, 2014) <sup>[39]</sup>. The well-known in digital marketing international organization Wordstream emphasizes that search engines hardly rank an e-shop webpages in the first positions of the organic results while following a strict series of specific algorithmic criteria and factors in order to present the best possible answer to its «search query» for any keyword. Page rank algorithm of Google is used to recognize the importance of websites in levels of 1-10 of which 10 represents best score and value between 7-10 shows that such an e-shop is very important (Srivastava, Kshatriya, Rathore, 2017) <sup>[38]</sup>.

According to Search Engine Land (2017) <sup>[33]</sup>, the use of keywords is a determining factor in optimization, while the placement of keywords in the content of web pages, in the title tags and in the url must be done diligently to be effective. Optimizing an e-shop is a necessary function of digital marketing and consists of two parts, onsite optimization process and the offsite optimization process. The first concerns the actions that take place within e-shop webpages, while the second those that take place outside on other websites and affect the final ranking.

**Corresponding Author:**  
**Nektarios Stylianou  
Makrydakis**  
Department of Business  
Administration, University of  
West Attica, Athens, Greece

The process of onsite optimization is a laborious and time-consuming process that must be implemented by e-shop managers and consists of a series of actions, processes and projects. The results of onsite optimization are decisive for the ranking of an e-shop in the context of e-commerce and it takes enough time to be reflected in search engines results (Khan, Hassan, Zarif, Rabbani, 2021) <sup>[14]</sup>.

E-business has several challenges and one of them is attracting visitors to e-shop. Online store optimization is important, to attract targeted visitors and potential leads customers. During the creation of an e-shop and even after, is important to implement optimization actions to increase webpages traffic and this process is dynamic and requires constant updating. Just as a physical store faces difficulties if is located in a place where is difficult to be visited by customers, the same happens in e-commerce if an online store doesn't appear on search engine results. Onsite organically optimizing an e-shop for search engines it usually reflects higher ranking position and thus more potential customers.

In this context, is considered very important to study and reveal all organic optimization factors have been emerged from previous researches.

### Definition of onsite optimization

Research has revealed that a significant part of e-shop visitors come from organic results of search engines such as Google. In particular, 23.6% of sales in online stores are linked to organic results (Insider, 2016) <sup>[17]</sup>.

The optimization of e-shop depends first of all on the actions taken by its administrators within webpages or onsite, a process known as on site optimization or on page optimization. Search engines use dozens of criteria and factors for the final ranking of e-shops and Google uses at least 200 key factors (Ahrefs, 2018) <sup>[3-4]</sup>. A cornerstone of onsite optimization strategy is the process of finding the keywords or phrases that internet users type to find content related to a business' online store. This is only the basis on which a methodically organized series of technical actions for onsite optimization is taking place, such as management of meta tags, heading tags, internal links and URL's.

Onsite optimization has crucial role and this is proven by research that has shown that there is a direct correlation between the ranking of e-shop webpages in the search engine results and the internal optimization (O'Neill, Curran, 2011) <sup>[23]</sup>.

### Onsite optimization factors

#### Keywords research

Keywords or phrases that customers type in search engines are being detected by the digital marketing department or web developer and strategically placed in the front end of e-shop webpages, in the content that appears on the users' screens, but also in the back end, in administrative e-shop environment that consists of html code and does not appear on customers' screens but only on search engine spiders.

Internet users choose specific keywords that are often different from the «official» terminology used by businesses (O'Neill, Curran, 2011) <sup>[23]</sup>. For example, a legal services company that has online buying services posts content related to legislation, but potential customers will rarely and hardly use such legal terms as keywords in search engines. The result is unsatisfactory webpages traffic. Therefore, the identification and utilization of the appropriate keywords is a crucial factor for onsite optimization processes.

The process of mining keywords that are most often used by customers and potential customers for a product or service involves actions in which information is drawn from huge amount of information databases such as Google Keyword Planner which is one of the largest bases since it gathers all traffic information of the largest search engine. Finding tens or hundreds of keywords from applications such as Google search console, semrush, moz and kwfinder with demographic and geographic analysis data ensures that the appropriate keywords for each e-shop will be identified and thus ensure content quality and customer growth.

#### Title tag

One of highly concerns is the improvement of the title of any webpage of e-shop by placing keywords on them (Moz, 2019) <sup>[18-22]</sup>. The title is useful for both users and search engines and usually appears above or below the url address of each webpage, while also including some keywords. It is the first piece of information about the content of each e-shop and must be comprehensive, descriptive, clear, unique and spelling correct. Ideally, the most effective title tags are about 10-70 characters long including spaces. Writing the right title is a process that should be done for each webpage, not just the home page. Each e-shop webpage has different content, usually a different product and is more effective to use unique keywords on title tag (O'Neill, Curran, 2011) <sup>[23]</sup>. Experts at Ahrefs (2018) <sup>[3-4]</sup> point out that the most common mistakes made by e-shops is to form title tags that do not correspond to the content of the webpages, containing many keywords, title tags are long or on the contrary are empty, use a copy of the title of the home page for every webpage. E-shop title tags should be written in html code and usually in the head point as below:

```
<Html>
<Head>
<Title> title of webpage </title>
</head>
</html>
```

#### Meta tags

Meta tags are part of html code that contain meta data for each e-shop webpage. Each meta tag is defined with the command NAME where the name of the information is written and with the command CONTENT where the content of the webpage is noted. Their content is not displayed on the front end of the webpages, it is not displayed to e-shop visitors, but is indexed by search engines (Knaak, 2014) <sup>[15]</sup>.

#### Meta description

Meta description indicates the content of the respective e-shop. According to Yoast (2019) <sup>[43]</sup>, is stated that while a short sentence is used in the title, two to three sentences or even a short paragraph are placed in the description which contains keywords and states the content of the webpage. A successful description is one that conveys the content of e-shop webpage in a few sentences, without using keywords in quotations or copying from other similar webpages. According to Moz (2017) <sup>[18]</sup> the suggested size by Google is 160-180 characters and the maximum as 300 characters. Search engine spiders «read» the description when crawling and indexing the webpages of e-shop and often display it in the search engine results along with the url and title. Meta description command is also written in the head point of

html as below:

```
<Html>
<Head>
<Title>title of webpage</title>
<Meta name="description" content="description of webpage
with two or
Three sentences or a short paragraph">
</head>
</html>
```

### Meta keywords

Meta keyword command indicates the keywords that are representative for each e-shop webpage. Four to five words should be added, without language restrictions, even misspellings since the content of the tag is not displayed on the front end to the visitors of e-shop. The number of keyword searches and the relevance of each keyword to the content of e-shop are important elements for search engines ranking.

It is preferable to add specialized words-phrases to the specific tag, the so-called long tail keywords, a phrase that users type and consists of more than three words and not the short tail keywords which are more general and consist of one or two words. Long tail keywords are better and describe more accurately the content of the webpages and have more chances to be typed by online users (Poongkode, Nirosha, 2015) [26]. Short tails that are more general, reach bigger but untargeted traffic target groups with dubious results and with a high probability of increasing the bounce rate, the rate of abandonment of e-shop by random visitors. The command code must be written as follows:

```
<Html>
<Head>
<Title> title of webpage</title>
<Meta name="description" content= "description of
webpage with two or three sentences or a short paragraph">
<Meta name="keywords" content="3-5 key words-phrases
that refer to the webpage separated by commas">
</head>
</html>
```

In recent years, guidelines have been published by search engines such as Google, which emphasize that the meta tag keyword will not be taken into account in the calculations of the algorithm for ranking the webpages because the abuse of the keywords by the administrators has been observed, the so-called keyword stuffing which is considered misleading or even spam. Keyword stuffing is one of the factors targeted by Google's sub-algorithm Penguin by ranking lower e-shops and websites that violated the rules. However, careful tag completion enhances the quality of an e-shop even if keywords are not counted for ranking as much as in previous years. Another factor that supports the above decision for the completion of specific Meta keywords is the existence of several search engines. Web developers and digital marketers often exclusively follow Google's rules, but in the context of an integrated SEO, other search engines should also be taken into account such as Bing, Yahoo, Baidu, Ask, Aol, Duck Duck Go, Wolfram Alpha, Yandex, WebCrawler, Search, Dogpile, Ixquick and Excite. These search engines use their own algorithms and a significant number of customers come through them.

### Robots meta tags

Robots meta tags, the parameters that define the content are

index, no index, follow and no follow. The index determines whether the contents of the e-shop webpages can be used by search engines for detection and indexing, and the follow determines whether search engines are allowed to follow the links on the webpages. If the tags are not filled, the search engines consider the index and follow to be valid and scan according to the following procedures. In case there is a webpage with a product that has either been removed or does not wish to be temporarily sold by the e-shop, it is necessary to use the no index and no follow commands.

### Heading tags

Heading tags of e-shop webpages help search engines to take into account and determine the content of the webpages. Advanced web ranking (2018) [1] found that headings are described as HTML header tags, head tags and heading tags. There are six hierarchically structured headings h1 to h6 with h1 being the most important for SEO and in webpage code they are marked as follows:

```
<h1>heading 1</h1>
<h2>heading 2</h2>
<h3>heading 3</h3>
<h4>heading 4</h4>
<h5>heading 5</h5>
<h6>heading 6</h6>
```

According to the Search Engine Journal (2018) [29-30], the hierarchy of heading tags must be strictly followed, the next heading from h1 should be h2 and not h3, while the random use of heading tags does not optimize webpages. The correct way to specify headings is as follows:

```
<h1>Original heading</h1>
<h2>Subheading paragraph 1</h2>
<h3>Subparagraph 1 heading</h3>
<h2>Paragraph 2 subheading</h2>
<h3>Subparagraph 2 heading</h3>
<h2>Paragraph 3 subheading</h2>
<h3>Subparagraph 3 heading</h3>
```

### Domain name

Domain is the name of the e-shop and it has an important role for e-shop success and its ranking in search engines. Moz (2019) [18-22], states that the choice of the domain name of an e-shop is usually identified with the brand and well-known brands in the market keep the same name in the domain because it is possible that this is also the keyword with which users will search for the business. In cases where the brand is not widely recognizable, a secondary solution is to identify the domain with the business keyword activity.

The ideal domain name length does not exceed 15 characters, with the aim of being easy for users to remember, read and type, while in a domain consisting of two or three words, hyphens between the words because even today they are to some extent considered spam. An important ranking criterion, is also the TLD (top level domain, it is the ending of the domain name) of e-shops which determines important parameters of its nature with a safer solution using the geographical area in which a business is located for example ".fr" for France and ".de" for Germany and avoiding endings like .info, .cc, .ws and .name which are popular with spammers.

Also, maintaining the domain and avoiding changing it positively affects S.E.O. (Matosevic 2015) [16], because the age of an e-shop is proportional to the ranking position. In the first 20 results of search engines rarely there is a new e-

shop with a lifetime of less than one (1) year. In the context of choosing an ideal domain for each agency and organization it is useful to ensure that alongside the domain, the same name is available on social media handles in order to build a homogeneous branding. Apps like "Namevine" check between potential domain names and social media handles.

### Url

Each webpage has its own url address which is usually an extension of the home page. Patel (2019) <sup>[24-25]</sup> states that webpage addresses with descriptive content and user-friendly are those that search engines evaluate more favorably than others that contain symbols and letters. According to the Search Engine Journal (2017) <sup>[28]</sup> url address should not be long because it makes it difficult for the user to type and search engines evaluate short, logical and simple addresses more positively, ideally consisting of 1-3 keywords, being unique for each e-shop webpage, do not contain session IDs and if there is more than one word a hyphen (-) is needed between them (Moz, 2019) <sup>[18-22]</sup>.

Regarding the grammar of the keywords that make up the url, is recommended that they should be in English or in the respective language written with latin characters because browsers do not «read» correctly certain languages with non-latin characters. According to EConsultancy (2015) <sup>[17]</sup> e-shop url's should make sense so that if a potential customer reads a url on search engine results he will be able to understand the webpage content.

### Content

Content of e-shop webpages usually includes texts, images, audio and video, with search engine spiders reading it and giving better ranking to those with unique content (Confetto, Covucci, 2021) <sup>[8]</sup>. The text of each webpage should contain the appropriate keywords whose density is also an onsite optimization factor with an ideal density, ranging between 1-4% of all words. Keyword density above 4% looks «suspicious» to search engines, while not taking into account so-called stop words such as, the, why and yes (Wordstream, 2019) <sup>[40-42]</sup>. In the latest update of Google's algorithm, the optimal amount of words for a webpage is calculated at 2,500 words for all details about a product of e-store.

Also duplicate content is useful to be as little as possible within e-shops. Duplicate content means having the same content on several webpages but accessing it from several different url's. It is a frequent phenomenon in e-shops a product to belongs to several subcategories of the menu and due to this fact search engines do not know which webpage to display among those with duplicate content and therefore e-shop must feed the search engines with the appropriate information. This particular problem is addressed by using master urls or canonical urls. Master url is often used for each product or service webpage and this is the method commonly used by large e-commerce websites. Canonical url defines a webpage as the one that e-shop wants search engine to link to when index products. Canonical url qualifier tells search engines, "Yes, I know there are many pages, but I want you to use this page." Finally, it is noted that Google's individual Panda algorithm, according to its operation, rewards e-shops with high-quality content webpages while reducing the positions of poor-quality webpages.

### Images

Search engines consider as an important factor of SEO the optimization of images and this is evident from the presence of the images menu in search engine results and their appearance in organic search results. A large percentage of traffic from search engines to e-shops comes from image results for which it follows the same ranking process. E-shops' product images and photos are a key component of any e-shop content. The S.E.O. process that enhances the ranking of images is called image optimization, is very important specially for e-shops and includes the following stages which are intended to help the search engines to «understand» the category of images.

Image title: Michiel Heijmans (2019) <sup>[12]</sup> notes that the title should be written with keywords from the webpage containing the image. Title of image is not taken into account by search engines when it comes to ranking the e-shop but it is taken into account when it comes to ranking the image itself. It is also useful for the client, who mouse over and read the title of the photo.

Product image file name: Image file names should contain descriptive keywords - for example, the image for a "Shoe" could be named "shoexxx.png".

Image alt tags (alternative attribute): browsers do not display a product image due to incompatibility or other problems, in these cases the description of the image (alt text) is displayed which is completed with keywords that describe the image. Alt text helps search engines in categorization (indexing) of webpages and in the ranking of the image. Within the html code it will be written as follows: ``

Caption: Appears below the image and briefly describes it. Search engine do not directly associate the captions with the ranking of e-shop webpages, but it helps it to connect the image with specific keywords and indirectly reduces the bounce rate.

Image size: Reducing the file size of the image contributes to the faster "loading" of the webpage, a determining factor for its ranking.

Storage format: Rutherford (2015) <sup>[27]</sup> argues that product and business photos should be saved as JPG files, while graphics should always be saved as PNG files with minimal Kilobytes to avoid slowing down the site.

### Sitemap

Sitemap is the «map» of webpages in which all of them are presented hierarchically and is mainly aimed at users experience so that they can easily find the section they are interested in and understand its structure. At the same time, it makes it easier for search engines to recognize the content of an e-shop by following the individual links between webpages. According to Search Engine Journal (2018) <sup>[29-30]</sup>, an html sitemap file helps users find what they are looking for, and an xml sitemap file helps engine spiders make correlations between the content of e-shop structure. The appropriate onsite technique concerning the sitemap are firstly to create a sitemap within e-shop, secondly to create an xml sitemap file and thirdly to declare it to the search engines.

**Error links**

It concerns the resolution of problems presented on e-shop such as links that do not lead to another page or other problems such as error 404 and «orphaned» pages which are webpages that do not have a sufficient connection within e-shop, there is difficulty in finding the webpage or it becomes a dead end and it leads nowhere. As Sickler (2019)<sup>[36]</sup> mention spiders crawling from point to point give degrees of quality and reliability when an e-shop always has "exits", internal links and easy access from one webpage to another.

**Interlinking**

In continuation of the previous section, the existence of internal links in e-shop makes it easier for users to seamlessly navigate between webpages and the same method is also used in the footer, at the bottom of e-shop which usually remains constant no matter where user navigate within it, in which is particularly useful to add links with keywords to busiest internal webpages.

**Webpage speed**

In the context of the strategic application of S.E.O. to enhance the online brand positioning (Ahmad, Mahdee, Bakar 2022)<sup>[2]</sup>, internet users wait about 4-7 seconds to "load" a webpage before abandon it. Is of high priority for search engines to count loading time of e-shop webpages in order to rank them in organic results. Moz (2019)<sup>[18-22]</sup> states that using light images and graphics, uploading videos to third-party applications such as Youtube or cloud and then embedding and displaying them next to e-shop products can maintain the size of e-shop in as few megabytes as possible.

**Mobile responsiveness**

Mobile responsive e-shop means to be designed and adapted to every mobile device screen and every browser, having all the functionalities as on a computer screen. Increasing use of smartphones and corresponding information searches through them activated the Google algorithm, which improves the ranking order for webpages that provide a positive experience to those who search from mobile devices such as smartphones and tablets, while on the contrary it ranks negatively those that are not compatible with mobile screens (Search Engine Land, 2015)<sup>[32]</sup>.

The most recent change of Google Mobilegeddon algorithm is about webpages being mobile-friendly by rewarding those that use mobile-friendly code. An e-shop may have different ranking in Google when search coming from desktop or mobile. The algorithm improves the ranking order for e-shops that provide a mobile friendly experience to those searching from mobile devices while on the contrary it ranks lower those that are not compatible with mobile versions. The algorithm scans each page on e-shop, checking for loading times, responsive design elements, and mobile best practices. The main things to pay attention to are text sizes that are readable without zooming, content that fits the screen without zooming and finger size for spacing links. Flash has to be avoided because it is not commonly supported on mobile devices (Gautam, 2019)<sup>[11]</sup>.

**Accelerated mobile pages**

Search engines are trying to improve mobile web performance. As mentioned, search engines rank higher

webpages that improve their performance when adapted to mobile device screens. An e-shop can improve speed by using accelerated mobile pages which is a modernized version of html, css and javascript. Using AMP, mobile webpages load 30x faster, using 8x less data than a non-AMP page.

**SSL security protocol**

Search engines positively reward e-shops that have an increased degree of security. The use of SSL (secure sockets layer) protocol enhances the security of buyers and their personal data helping e-shops to get a higher ranking position. Secure sockets layer is an onsite optimization software and a protocol that provides security when transmitting sensitive data over the internet. SSL based on methods of encrypting the data exchanged between two devices, usually computers, establishing a secure connection between them through the internet using TCP/IP (Transfer Control Protocol / Internet Protocol) protocols. SSL take place before TCP/IP and after high-level applications. After the changes made in 2017 in the algorithm of Google and Firefox, e-shops are encouraged to adopt https and install an SSL for security reasons. An SSL certificate gives a slight edge in ranking in search results and is a sign of trust for e-shop customers and leads customers to complete a purchase or provide their personal information.

**Schema**

Moz (2019)<sup>[18-22]</sup> supports that major search engines like Google, Bing, Yandex and Yahoo created Schema.org, which contain all the schema tags that webmasters can use in order all search engines to interpret and rank each information in the same way. Html tags usually provide information to browsers and by extension to search engines how to display a piece of information. For example, <h1>Avatar</h1> helps the browser to display the text "Avatar" in a heading one (1) format. But html tag does not give any information about what this text means. "Avatar" could refer to the 3D movie, or it could refer to a type of product and this makes it more difficult for search engines to intelligently display relevant content to a user. Therefore in the context of onsite optimization the use of schema tag in some cases necessary (Alifi, Hayati, Wonoseto, 2022)<sup>[5]</sup>.

**Voice search**

20% of search queries in the mobile app of search engines are done vocally with the process of voice searches. According to Neil Patel (2019)<sup>[24-25]</sup>, whom the Wall Street Journal has named as a top influencer in internet matters and Forbes has ranked him among the 10 best marketers, search engines already give more weight and positively evaluate e-shops that can better respond to voice searches and have adapted their algorithms to better "learn" the user's language and pronunciation each time they perform a voice search (Bajorek, 2020)<sup>[6]</sup>.

**Direct e-shop visits**

Direct visits to e-shop, the so-called direct hits, are an important SEO factor, especially for e-shops that contain keywords with a large monthly search volume from the users of search engines. Essentially, search engines, rank as more important webpages that users directly type their domain into the browsers. E-shops with small domains and with a recognized brand name are favored. This is

confirmed by a research carried out by Semrush (2017) [35], which is one of the most reliable sources of statistics and analysis, according to which a number of factors affecting the ranking of e-shops is direct traffic to it. The appropriate onsite optimization actions with the selection of an appropriate domain and content are more effective when they are combined with offsite optimization actions such as online and outdoor advertising in cars, in newspapers, on television channels that increase the visibility of the domain and therefore e-store awareness and direct traffic.

### **Average time on e-shop**

Average time spent by visitors on e-shop is a critical factor for ranking between first positions of search engines. The optimal dwell time is 250 seconds or over 4 minutes. The higher the monthly search volume for a keyword, the more the time spent on the e-shop affects the search results. The rich content of e-shop is a factor that usually increases the customer's time on pages and includes exchanges such as useful and impressive content, videos and testimonials for products (Hmdy, 2021) [13].

### **Pages per session**

According to search engine journal, the number of pages an average user visits before leaving an e-shop has a decisive role in ranking with an optimal performance of at least 3, 5 pages per visit. To achieve this goal, one page e-shops should be avoided and product content should be present and navigate in a simple and easy way.

### **Bounce Rate**

Bounce rate is the indicator that reveals the percentage of users who visited an e-shop but eventually abandoned it without visit other webpage (Cai, Liou, 2021) [7]. When bounce rate is low, it means that most visitors are interested for e-shop, they do not abandon it easily, they derive useful information and return to it when they are searching for related products or services (Search engine journal, 2019) [31]. The most common bounce rate factors are attracting random users without really being interested and eventually abandoning it, e-shop contains keywords that are either not related to the product or are chosen incorrectly, generic keywords are used, e-shop has poor interface or has outdated content. The best ways to deal with it are to focus on a smaller but higher quality – targeted audience, choose niche keywords and long tail phrases.

### **Server location**

Location of the server that hosts an e-shop is another factor that affects ranking. Loading speed of e-shop webpages is a very important factor for visitors and has been proven that the closer the server is to the audience or a specific target group the faster is the loading of webpages (Semrush, 2015) [34]. Therefore, depending on where the largest volume of customers comes from, it is useful to choose accordingly the location of the server.

### **E-shop breadcrumbs**

Breadcrumbs are small texts, which are usually located at the top of e-shop webpages and show the path followed by customers. The most common are behavioral breadcrumbs, e-shop structure breadcrumbs and historical breadcrumbs. Is useful to add this parameter in e-shop because they improve the customer experience, increase the chances a customer to

find the product is looking for and reduce the bounce rate (Yoast, 2018) [44].

### **White hat optimization**

Most search engines have guidelines and rules for e-shop managers and suggest them appropriate factors and techniques to increase onsite optimization. E-shops that comply with these guidelines apply white hat optimization and are ranked according to engine rules (Wordstream, 2019) [40-42]. Despite guidelines, many cases have been observed that e-shops, either out of ignorance or deliberately, try to «cheat» search engine spiders in order to achieve a better ranking, applying techniques that are not acceptable, the so-called black hat techniques (Duk, Bjelobrk, Carapina, 2013) [9]. Search engines are constantly adding new elements to their algorithms to find these e-shop and in some cases remove them from their results either temporarily or permanently, which is a significant blow. There have been cases where e-shop managers unknowingly use black hat techniques during onsite optimization. The most common black hat techniques to avoid are:

Keywords stuffing, occurs when writing texts or descriptive paragraphs with many keywords that are repeated constantly and may not make any sense to the customer. The only purpose is to have plenty of words to fool the search engine spiders.

Doorways, refer to webpages that were built in such a way and with content that is unrelated to the rest of the content of e-shop, the purpose of which is to achieve a very good ranking based on what internet users are looking for so that they click on them.

Redirectors, is when user chooses to click on a doorway page it directly directs him to the home page of e-shop. Of course, the content of the website is completely different from what the user is looking for.

Invisible texts, were invented by some webmasters to get better rankings in search engine results. They created texts full of keywords in white letters on a white background so that they could not be seen by users but read by search engine spiders. The same «cheating» can be done with.php files in cooperation with css and should be avoided by administrators.

### **Conclusion**

Onsite optimization has a lot of factors that affect performance and ranking of an e-shop on search engines results. In this article, researcher discussed some important issues related to the optimization factors of e-shops for better ranking on search engine results. The literature review showed that webpages can be optimized by intervention on webpages code. Marketers and web developers can improve search engine ranking of an e-shop implementing targeted actions within it. This means that managers need support and ongoing training in understanding algorithmic optimization factors. The review revealed that when onsite optimization factors used properly can have many advantages to businesses and customers. In addition, the literature review showed that the use of on-site optimization techniques hold a significant share in the effectiveness of e-commerce. In summary, the findings of this literature review revealed that online stores should improve their search engine ranking in order to attract more targeted customers and one of the key pillars of this process is onsite optimization factors.

**References**

1. Advanced web ranking. Meta Tags in 2019: Why are They Important in SEO; c2018. <https://www.advancedwebranking.com/blog/meta-tags-important-in-seo/>
2. Ahmad UF, Mahdee J, Abu Bakar N. Search engine optimization (SEO) strategy as determinants to enhance the online brand positioning F1000 Research. 2022;11:714.
3. Ahrefs. Dwell Time: Is it really a ranking; c2018. Factor? <https://ahrefs.com/blog/dwell-time/>
4. Ahrefs. How to Craft the Perfect SEO Title Tag; c2018. <https://ahrefs.com/blog/title-tag-seo/>
5. Alifi M, Hayati H, Wonoseto M. Relational Data Model on The University Website with Search Engine Optimization. International Journal on Informatics for Development. 2022;10(2):112-121.
6. Bajorek J. Voice in the Roaring 20's: Platform Disruption, Multimodal, and Voice SEO (Adobe XD Ideas). Society of digital agencies; c2020.
7. Cai Z, Liou H. Beauty matters: reducing bounce rate by aesthetics of experience product portal page. Industrial Management & Data Systems; c2021.
8. Confetto M, Covucci C. Sustainability-contents SEO: A semantic algorithm to improve; c2021.
9. Duk S, Bjelobrck D, Ćarapina M. SEO in e-commerce: balancing between white and black hat methods. Conference: Information & Communication Technology Electronics & Microelectronics (MIPRO), 2013 36<sup>th</sup> International Convention on; c2013.
10. Econsultancy. A complete guide to SEO for university; c2015. Websites. <https://econsultancy.com/a-complete-guide-to-seo-for-university-websites/>
11. Gautam A. Mobile Search Engine Optimization, International Journal of Scientific Research in Computer Science Engineering and Information Technology; c2019.
12. Heijmans M. Image SEO: Optimizing images for search engines; c2019. <https://yoast.com/image-seo/>
13. Hmdy A. On-Page SEO Research; c2021. DOI:10.13140/RG.2.2.32504.78089
14. Khan T, Hassan I, Zarif I, Rabbani M. PR-SEO: An innovative Approach for Product Ranking in E-commerce. International Conference on Advances in Electrical and Computer Technologies ICAECT 2020: Advances in Electrical and Computer Technologies; c2021. p. 127-135.
15. Knaak R. Metatags and keywords as comparative advertising. Journal of Intellectual Property Law & Practice. 2014;9(9):770-777. DOI:10.1093/jiplp/jpu1
16. Matosevic G. Measuring the Utilization of On-Page Search Engine Optimization in Selected Domain. Journal of Information and Organizational Sciences. 2015;39(2):199.
17. Meola A. Most online shoppers are using this one tool before they decide to buy, Insider; c2016. <https://www.businessinsider.com/most-online-shoppers-are-using-search-engines-before-they-buy-2016-4>
18. Moz. SEO Learning Center. On-Site SEO. Meta Description; c2017. <https://moz.com/learn/seo/meta-description>.
19. Moz. Domains what are domains; c2019. <https://moz.com/learn/seo/domain>
20. Moz. Page Speed; c2019. <https://moz.com/learn/seo/page-speed>
21. Moz. Schema.org Markup; c2019. <https://moz.com/learn/seo/schema-structured-data>
22. Moz. Title Tag. What is a meta title tag; c2019. <https://moz.com/learn/seo/title-tag>
23. O'Neill S, Curran K. The Core Aspects of Search Engine Optimization Necessary to Move up the Ranking, International Journal of Ambient Computing and Intelligence. 2011;3(4):62-70.
24. Patel N. How to Optimize for Voice Search: 4 Simple SEO Strategies; c2019. <https://neilpatel.com/blog/seo-for-voice-search/>
25. Patel N. How to Create SEO Friendly URLs; c2019. <https://neilpatel.com/blog/seo-urls/>
26. Poongkode J, Nirosha V. Increasing the Visibility of an E-Commerce Website in the Search Results of a Search Engine. International Journal of Engineering Research & Technology (IJERT); c2015, 3(15).
27. Rutherford - Econsultancy. A complete guide to SEO for university websites; c2015. <https://econsultancy.com/a-complete-guide-to-seo-for-university-websites/>
28. Search Engine Journal. The Ultimate Guide for an SEO-Friendly URL Structure; c2017. <https://www.searchenginejournal.com/seo-friendly-url-structure-2/202790/#close>
29. Search Engine Journal. How to Use Header Tags: SEO Best Practices; c2018. <https://www.searchenginejournal.com/header-tags-seo-best-practices/261835/#close>
30. Search Engine Journal. How to Use XML Sitemaps to Boost SEO; c2018. <https://www.searchenginejournal.com/xml-sitemaps-seo/266907/#close>
31. Search Engine Journal. 5 On-Site SEO Factors That Matter Most; c2019. <https://www.searchenginejournal.com/on-site-seo-factors/295357/#close>
32. Search Engine Land. Is Responsive Design A Ranking Factor; c2015. <https://searchengineland.com/responsive-design-ranking-factor-228464>
33. Search Engine Land. 7 most important SEO focus areas for colleges and universities; c2017. <https://searchengineland.com/7-important-seo-focus-areas-colleges-universities-275813>
34. Sem Rush. International Web Hosting Issues: Does Server Location Really Matter; c2015. <https://www.semrush.com/blog/international-web-hosting-issues-does-server-location-really-matter/>
35. Sem Rush. Ranking Factors 2.0; c2017. <https://www.semrush.com/ranking-factors/>
36. Sickler J. Content Marketing Institute. Thin Content: Why You Should Fix or Remove Low-Quality Web Pages; c2019. <https://contentmarketinginstitute.com/2019/10/thin-content/>
37. Site Map Usability, Jakob Nielsen's Alertbox, August 12, 2008, <http://www.nngroup.com/articles/site-map-usability/>
38. Srivastava S, Kshatriya S, Rathore R, Search Engine Optimization in E-Commerce Sites. International Research Journal of Engineering and Technology

- (IRJET); c2017, 4(5).
39. UplandKapost. UplandKapost, Liz O'Neill Dennison, Paid vs. Organic: Which Traffic Source Is Better; c2014. <https://kapost.com/b/paid-vs-organic-traffic/>
  40. Wordstream. Content Keywords FAQ: How to Use SEO Keywords for Content Marketing; c2019. <https://www.wordstream.com/blog/ws/2012/10/03/keyword-content-marketing-faq>
  41. Wordstream. Search Engine Marketing (SEM): What It Is & How to Do It Right; c2019. <https://www.wordstream.com/search-engine-marketing>
  42. Wordstream. White Hat SEO: How to Rank Without Breaking the Rules; c2019. <https://www.wordstream.com/white-hat-seo>
  43. Yoast. How to create the right meta description; c2019. <https://yoast.com/meta-descriptions/>
  44. Yoast. What are breadcrumbs and why are they important for SEO; c2018. <https://yoast.com/breadcrumbs-seo/>
  45. Zhang S, Cabage N. Search Engine Optimization: Comparison of Link Building and Social Sharing, Journal of Computer Information Systems. 2017;57(2):148-159.