PR-SEO: An Innovative Approach for Product Ranking in E-Commerce

By

Imrose Hasan
ID: 123-15-2118

This Report Presented in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Computer Science and Engineering

Supervised By

Masud Rabbani
Lecturer
Department of CSE
Daffodil International University

Co-Supervised By

Ahmed Al Marouf
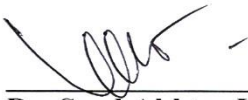Lecturer
Department of CSE
Daffodil International University

Daffodil International University
DHAKA, BANGLADESH
December 2019

i

APPROVAL

This Project titled **"PR-SEO: An Innovative Approach for Product Ranking Through E-Commerce site Searching"**, submitted by Md. Imrose Hasan, ID No: 123-15-2118 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on December 7, 2019

BOARD OF EXAMINERS

Dr. Syed Akhter Hossain   **Chairman**
Professor and Head
Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

Nazmun Nessa Moon   **Internal Examiner**
Assistant Professor
Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

Gazi Zahirul Islam   **Internal Examiner**
Assistant Professor
Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

Dr. Mohammad Shorif Uddin   **External Examiner**
Professor
Department of Computer Science and Engineering
Jahangirnagar University

ii

DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Md. Masud Rabbani** Daffodil International University. I also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.
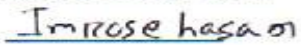
SUPERVISED BY:

Md. Masud Rabbani
Lecturer
Department of CSE
Daffodil International University

CO-SUPERVISED BY:

Ahmed Al Marouf
Lecturer
Department of CSE
Daffodil International University

SUBMITTED BY:

Imrose hasan

Imrose Hasan
ID: 123-15-2118
Department of CSE
Daffodil International University

ii

iii

ACKNOWLEDGEMENT

In the very beginning, we would like to convey our gratitude and thankfulness to the almighty for giving us the proficiency and capability along with all the blessings by virtue of which, it has been possible to implement this thesis and execute all the stages as per the planning efficiently.

In addition to this, it was an honor for us to have **Masud Rabbani**, Lecturer, Department of CSE, Daffodil International University and **Ahmed Al Marouf,** Lecturer, Department of CSE, Daffodil International University as our mentor for their constant support during my study. They have inspired us a lot to work in this project, his motivation encouraged us extremely to our project.

Besides, we really appreciate and would like to express our cordial gratitude to Prof. Dr. Syed Akhter Hossain, professor and head, Department of CSE, for his kind help and constant collaboration to successfully execute our thesis and also to other faculty member and staff of CSE department of Daffodil International University.

We would like to thank the authority of Daffodil International University for providing us a good environment and facilities such as computer laboratory to complete this project with software which we need during process.

We would like to thank our entire course mate in Daffodil International University, who took part in this discuss while completing the course work. Furthermore, we would like to thank to the parents who never doubted, constantly supported, and always loved us, to our team who have never any single problem to contribute to this project and all other of our friends and classmates at Daffodil International University who have supplementary support to my study efforts

ABSTRACT

This work proposes an approach for product ranking with SEO (PR-SEO). PR-SEO is such a way with which all the product in an E-commerce site can get a rank. Search engine optimization (SEO) is now become one of the most useable technique because of the e-commerce business. With the development of technology now a day's online shopping has become more attractive to all the users. To represent the product in front of all the user Search Engine Optimization (SEO) helps a lot by ranking the product. In recent few days, the Search Engine Optimization (SEO) becomes more popular because of only the e-commerce sites. Now in this era of digital marketing, all the e-commerce sites are in a competition because of their product for the product. For generating a new lead of organic traffic, all the e-commerce sites need to be available in the top search when a customer is willingly searching for it without this new lead of organic traffic will not be generated. This proposed product ranking with SEO (PR-SEO) mainly focuses on the SEO tactics for digital marketing as well as E-commerce sites.

TABLE OF CONTENTS

Contents   **Page**

LIST OF FIGURE

CHAPTER 01

INTRODUCTION

1.1 Introduction

Search engine optimization (SEO) is such a process which is mainly enhancing the quality and the quantity of traffic for a website. Google, Bing, and Yahoo, all the major search engine have their tactics for ranking a product or website. The priority of all the products is making through which are more relevant for the user. Webpage language, site structure to improve the site search performance all that task is done through the search engine. SEO is mainly a blueprint which is developing day by day as well as with the development of search engines. PR-SEO is one of the parts of SEO with which product ranking can be done easily.

All the companies that are dedicated to the search engine are in a strong position in the online world. Sooth to say, half of all the visitors who come to the website for searching something, they all use a search engine. So, for using and popularity of these search engine, most of the visitor does not come to their desire website directly, but via another web page. According to a survey from web indexes, it is considered that almost 4.5 billion client inquiries for a product on online come in a month. Nearly 2.3 billion dollars has been elapsed of the sells in e-commerce site all over the globe. From a survey, it is found that all over the world, at least 85% of customers are using Google as a search engine. Among all the users 33% users are directly going with the top result of Googles

SERP (Search Engine Results Pages), and another 75% result made on the 1st page of search result. This PR-SEO mainly elaborates on the working procedure of ranking a product in a search engine, which is primarily helped a product to be ranked. In this work working process, the A9 also the PageRank (PR) algorithm is described for the search engine. The methodology of a search engine is developed day by day with the development of the search engine. There are mainly three factors behind the ranking positions for search engine.
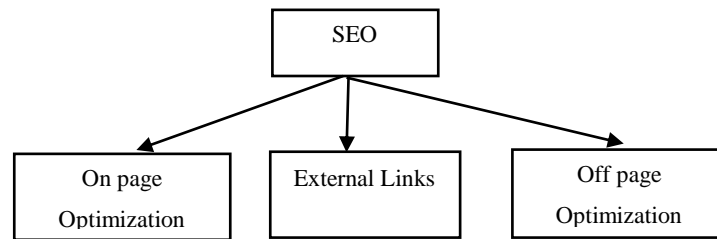
```
                    ┌──────────────┐
                    │     SEO      │
                    └──────────────┘
            ┌──────────────┼──────────────┐
            ▼              ▼              ▼
    ┌──────────────┐ ┌──────────────┐ ┌──────────────┐
    │   On page    │ │ External Links│ │   Off page   │
    │ Optimization │ │              │ │ Optimization │
    └──────────────┘ └──────────────┘ └──────────────┘
```

Fig. 1: Factors for good ranking.

The figure mentioned above shows the terminology of the base of SEO.

1.2 Motivation

Today's customers deem search engines to assist them realize everything from eating place recommendations to B2B software package suppliers. This means that in spite of what businesses offers, audience is probably going sorting out merchandise or services like on search engines like Google. And if one would like to draw in them to web site, He or She must need SEO. But if you've spent abundant time researching your choices with digital promoting, you've in all probability detected that before. That's why on this work, we'll make a case for specifically what makes SEO thus necessary.

1.3 Objectives

- Raw Traffic.
- E-Commerce Sales.
- Mindshare/Branding.
- Lead Acquisition & Direct Marketing.
- Reputation Management.
- Ideological Influence

2

1.4 Rationale of the Study

Search engine optimization (SEO) is that the method of generating additional organic (i.e. free, natural) traffic from sites like Google, Bing and Yahoo. When one hunt for one thing on Google, such as when one search for anything on google he/she will take to the search engine results page (SERP).A few years past, a study found that solely 4.8% of people who search build it to the second page of search results, and only 1.1% to the Page 3. This is reason it is said that the simplest place to cover a body is on page 2 of Google. Rank on the primary page matters likewise. An equivalent study found that the highest result grabs 32.5% of traffic on the average. The second result grabs solely 17.6%.The name of the theme, after that is to rank as high on the primary page of Google, Bing, Yahoo, etc. as it will easily be a search terms that one potential customers could be victimization.

1.5 Expected Outcome

SEO is such an optimization work which help to lifting the product ranking among all over the product into the online. Which indicates that the content is organized on page is extremely vital to SEO success .When shoppers are ready to quickly and simply find the items what they are searching for, they tend to pay longer time on website and look at additional pages, which might facilitate the website rankings. Site speed all regarding accessibility. Once the website is straightforward to navigate and everything moves quickly, shoppers don't have any cause for frustration. This suggests that they're probably to pay longer on the website.

3

1.6 Report layout

Here, in this paper, we have tried to divide this entire paper into five segments for the precise implementation and augmented explanation to make the concept more convenient in term of understanding. The initial segment has been decorated with the basic understanding and rationale of the study to portrait the expected outcome and the motivation behind the concept to assist comprehending easily. Later the second segment or chapter has been made with the Background for this concept and the summary of our research has been highlighted along with other relevant researches to get assistance from. Also the challenges and the field of errors faced during the research and implementation has also been added. The third one is the Research Methodology where we have tried to express the idea about the methodology of the research work and the stages we have needed to go through including Instrumentation for the researching work. In the fourth chapter, the ultimate implementation of the experiments and extensive discussions has been made regarding the methodologies for the comprehensive possibilities to finish the task successfully. And finally the gist of our research work and all the studies regarding the implementation for search engine optimization in product and the implication for further study has been displayed with precise and legitimate explanation to utilize the study and technique for further usability to enrich the implementation of SEO (search engine optimization) in ecommerce.

4

CHAPTER 02

BACKGROUND

2.1 Introduction

Product ranking through SEO is a good concept in the edge of digital marketing. Many of youth can be self-dependent with this work. Before many research work have been done on it one work proposed another framework which gave excellent execution in checking the aptitudes of SEO of the site and gave the steady data backing to continuous streamlining on web site and making web site advertising methodology. With the issues, the paper place ahead plan Methods for website optimization and summed up the improvement methodologies for web composition.

2.2 Related Works

The proposed work develop the idea and methodology, which develops also the development of search engine, and promotes the development of search engines at the same time. The major factors for good ranking positions in all the main search engines are

- On-page optimization
- External Links.
- Outbound links

Based on this 3 factors the proposed work developed the ranking of the website, which also develop visitors in the website also. Based on this work we mainly focused on product ranking into various website. Which also used to generate organic traffic as well into the website.

2.3 Research Summary

The present paper examines the effect of accepting and recording of search engines and positioning standards to get understanding of the highlights of web index calculations as often as possible utilized and proposes the improvement technique for the advancement of a site. This framework gave great execution in observing the aptitudes of SEO of site, and gave the steady data backing to progressing advancement on web index and making search engine promoting technique. With

5

the issues, the paper place ahead structure Methods for website optimization, and summarized the improvement procedures for web composition or design.

2.4 Scope of the Problem

This paper proposes a methodology for item positioning with SEO. PR-SEO is such a way with which all the product in an E-commerce site can get a position. Search engine optimization (SEO) is presently turned out to be one of the most usable system in view of the online business. With the improvement of innovation now a days web based shopping has become progressively appealing to every one of the clients. To speak to the item before all the client Search Engine Optimization (SEO) helps by positioning the item. Based on some feature analyze market , product details, analyze user, data cleaning and finally with the help of review this work help to rank for a product.

2.5 Challenges

This research is related with market analysis work so our main challenges that we faced during the time of data collection. We are targeted people of various age and analysis on their demand and way of choosing product. According to their age. For ranking a product and to generate an organic traffic to the page all the factor are needed. Except all the factors a good ranking for a product is not possible. To attract all the viewers to the product page all these factors are necessary.

6

CHAPTER 03

RESEARCH METHODOLOGY

3.1 Introduction

For ranking a product A9 algorithm is used .The A9 Algorithm is the framework which Amazon uses to choose how items are positioned in list items. It is like the calculation which Google utilizes for its indexed lists, in that it considers watchwords in choosing which results are most pertinent to the hunt and in this way which it will show first.

Not only is the algorithm there also some factors which are necessary for listing product.

- Relevancy to searched keywords
- Pricing
- Conversions
- Product listing completeness
- Stock supply
- Sales rank
- Reviews

Relevancy to searched keywords

Above all else, Amazon takes a gander at keyword relevancy. The objective is to give relevant product that match the keywords individuals search. Amazon just needs to incorporate important query items that will get individuals to click and purchase.

Pricing

Individuals are continually searching for the best arrangements on products. In the event that one need to rank well in the list products on Amazon, one should evaluate the items correctly. To get a thought on estimating, look at rival's listing for the same products keyword**.**

7

Conversions

Conversions are a major contributing component for ranking. Amazon needs to rank products higher that procure conversions and leave clients fulfilled. This guarantees individuals will change over, which is Amazon's definitive objective.

Product listing completeness

Perhaps the greatest mix-up that organizations make isn't finishing their item postings. Many will simply include goodies of data and distribute their products. On the off chance that one need to enable the item to rank better in the list items, one should make a full and data item posting.

Stock supply

In the event that one need to get to the highest point of the rankings and stay at the top, you should keep your items in stock. Amazon won't rank items at the top if clients can't promptly get them. It's debilitating for a client to tap on your posting and see they can't get the item for 10 days since it's out of stock

Sales rank

Amazon positions each item's presentation contrasted with other comparable contender items. On the off chance that you delve into the item subtleties and take a gander at the best seller rating, you will see a number for various classifications. This is your business rank.

Reviews

Surveys are critical with regards to positioning your page. Amazon needs to rank item pages most noteworthy that have great audits.

3.2 Research Subject and Instrumentation

The main objective of the research on SEO is to make it easier for use in almost every sectors of people. Also create a place for making self-employment. Which make a great contribution to eradicate the unemployment problem.

Instrumentation

- ➤ Black Box
- ➤ X-ray
- ➤ Scribbles
- ➤ Cerebro
- ➤ Refund Genie
- ➤ Inventory Protector

3.3 Data Collection Procedure

Product ranking SEO deploy some stratum for ranking a product. Like analysis about the audience, find out about the age range. The product details and review on the product based on market demand is required mostly as well as cleaning the data about the product and also about the audience, making category among the audience.
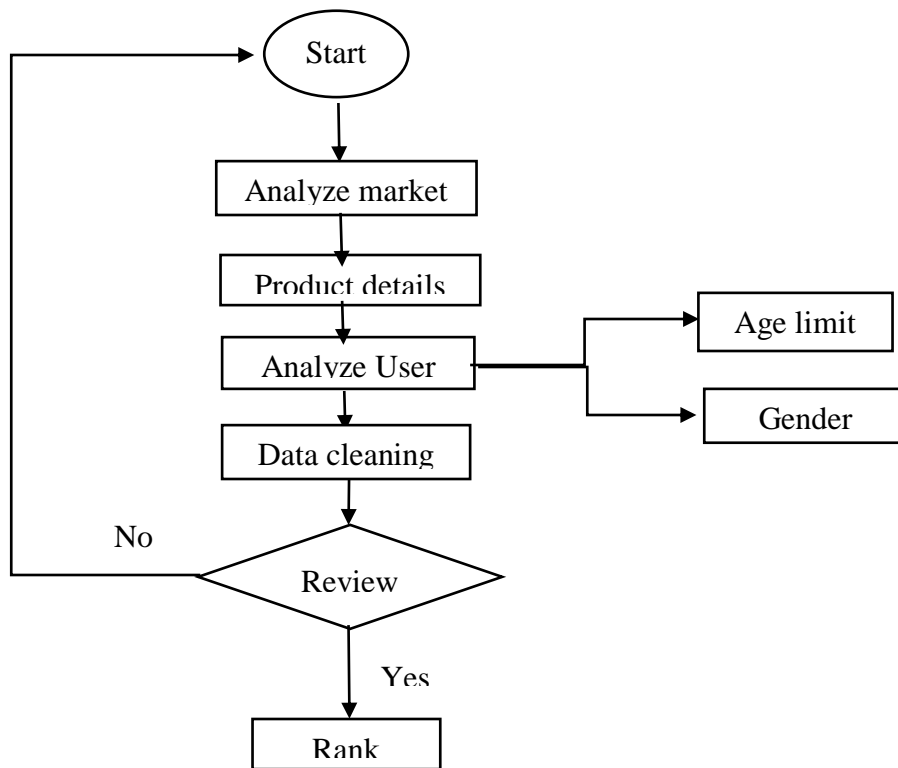
Fig. 3.3: Flow chart for ranking a product

9

The process which is shown in the above figure is described as follows:

Step 1: For deploying PR-SEO, at first, we need to analyze the condition of the market, such as the most demanded product for the market.

Step 2: After analyzing the market, the task is to collect the details of the product like the quality of the product, ingredients, price, and origin.

Step 3: After searching for a product, the task of targeting consumer comes. Need to target consumer according to their gender and age.

Step 4: All the data related to the product need to be specified as like as the need to be categorized for ranking the product.

Step 5: After that, the final and foremost task of PR-SEO is to review the all the category if the category is okay then the data is uploaded for the ranking product otherwise step 1 is followed again.

3.5 Implementation Requirements

For this research implementation we required

- ➢ Black Box
- ➢ X-ray
- ➢ Scribbles
- ➢ Cerebro
- ➢ Refund Genie
- ➢ Inventory Protector

Black Box

Black Box is your enchantment reflect for profound item look into. Access a huge database of more than 450 million items in seconds with cutting edge channels to locate a triumphant item

10

X-ray

Amazon Product Research, inside the Helium 10 Chrome Extension, helps give Amazon venders a bird's-eye perspective on a market as they peruse through Amazon. Open up Xray on an Amazon query items page or item page, to approve potential item openings that you're thinking about sourcing.

Scribbles

Scribbles ensures that significant catchphrases are never absent from a posting. Mechanize catchphrase association for titles, depictions, and visual cues. Improve any item inclining to expand natural traffic

Cerebro

Cerebro jumps profound into contender information to distinguish winning watchwords. Contrast various ASINS with uncover must-have information focuses, for example, evaluated watchword expression search volume, assessed wide catchphrase expression search volume, and that's just the beginning. Keep an eye on your rivals' best watchword methodologies and leave nothing to risk.

Refund Genie

Produce evaluated repayments for lost or harmed stock on Amazon that you probably won't have even thought about. Definite reports are immediately created making it a lot less difficult to submit repayment solicitations to Amazon.

Inventory Protector

Complete Amazon stock assurance. Keep coupon stackers from clearing out your stock by effectively setting greatest request restrains on every ASIN. Start ensuring your stock and your income today

CHAPTER 04

EXPERIMENTAL RESULT AND DISCUSSION

4.1 Introduction

Product ranking SEO for the most part expounds on the working strategy of ranking a product in a web site, which is essentially helped a product to be ranked. In this working process, the A9 additionally the Page Rank calculation is portrayed for the web site.

4.2 Experimental Result

Nowadays, E-commerce makes online business most popular among people all over the world. Many facts or criteria are standing behind the business product show online. People are always ready to get the best product online. Because of this, all the products need to go through the competition with another product. SEO has made that thing easier; with this, one product can be reached on the top of the list. PR-SEO deploy such an approach which at first target the visitors who have visited the website for buying the product. Targeting their age and also find out whether they are men are women. There is also another fact working or need to look at how many days the advertisement for that product need to run for users visit also determine the start and ending time for that advertisement. Below figure. 3 shows the analysis result of the audience for making product ranking.
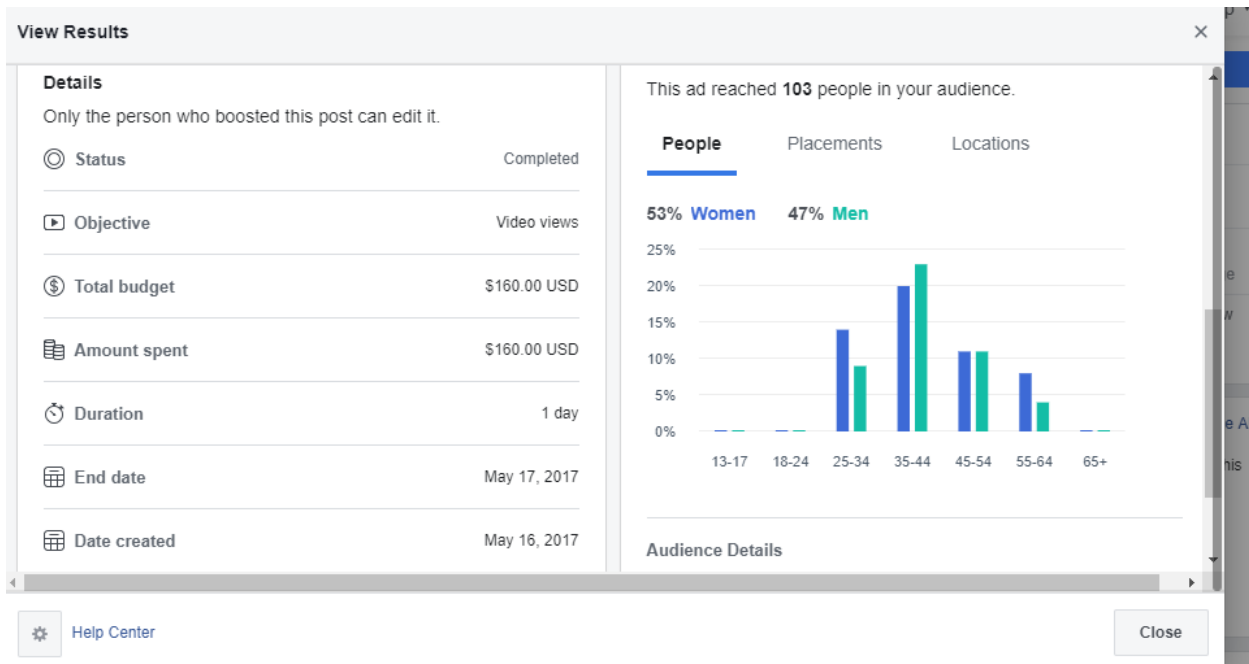
Fig. 4.2.1: Analysis audience.

After analyzing the targeting audience, then the fact related to selecting the location where that advertisement will run. Also, choose the audience criteria. Like which audience are getting the advertisement and also fixed that whether they are those people who are like the page of the product or not. The age limit of the audience also needs to be fixed here because the advertisement goes only those related age people. Below figure. 4 shows the analysis result of audience criteria and location for making product ranking

Fig. 4.2.2: Audience criteria and location selection.

After all this selection finally needs to analyze how many people will get that advertisement of that product and how many people visit with that advertisement and also determine how many clicks are on this advertisement. Below figure. 5 show the analysis status of audience response.

Fig. 4.2.3: Analysis the status of audience response.

4.3 Descriptive analysis:

For ranking a product at first need to combined some URL for promotions all these link could be either.

- Keyword base link,
- Pagebase link,
- Price link
- Brand link

In every social media there is an option with which it can be promoted or a product can be promoted through all these criteria of links. But in this work we only do a SEO for product without publishing it into the social media

4.3.1 Keyword base link:

Keyword base link mainly generated for searching any product through keyword. If any user search any product through keyword then he might get the searched product with top priority. For this reason it needs to generate a keyword base link for every product such that anyone can easily get the product with the help of searching through any keyword of the product. Below figure show the keyword base URL.
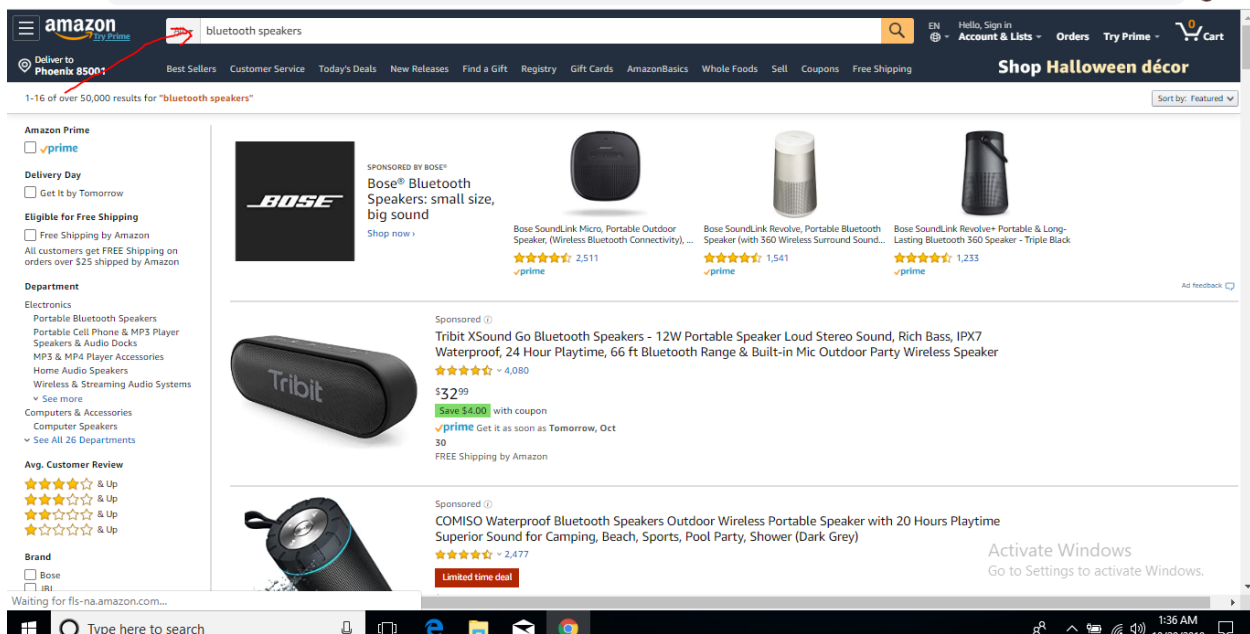
15

Fig. 4.3.1: Keyword base URL for Product

4.3.2 Page base link:

There is another link called page base link. Page base link mainly generated for searching any product through specific page on a website. If any user search any product through reference page of any website , which publish the product then he might get the searched product with top priority. For this reason it needs to generate a page base link for every product such that anyone can easily get the product with the help of searching through querying any of the page on website. Below figure show the Page base URL
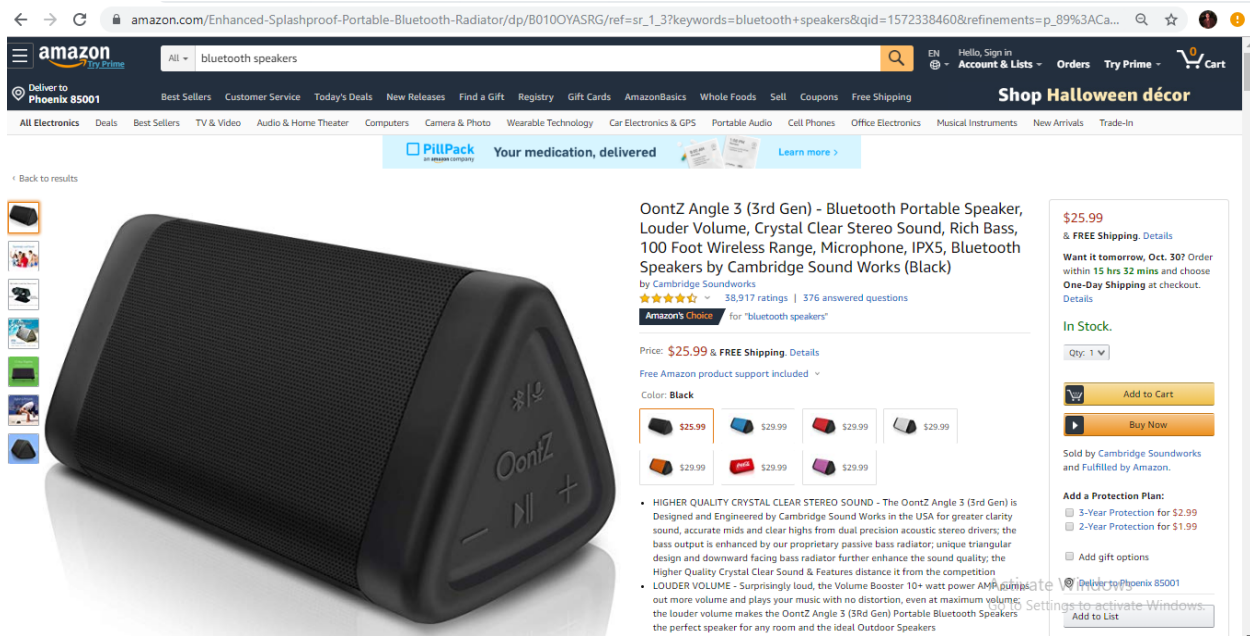
Fig. 4.3.2: Page base URL for Product

4.3.3 Price link:

Price base link mainly generated for searching any product through Price. If any user search any product through Price then he might get the searched product with top priority with that relevant Price. For this reason it needs to generate a Price base link for every product such that anyone can easily get the product with the help of searching through any Price of the product. Below figure show the Price base URL
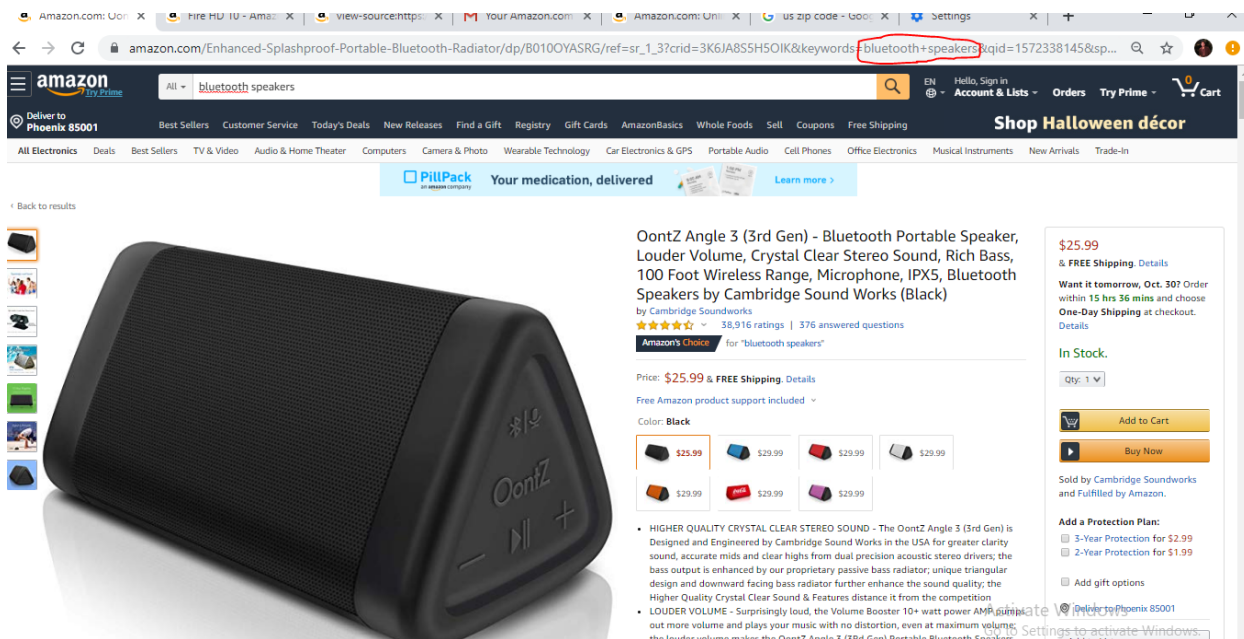
17

Fig. 4.3.3: Price base URL for Product

4.3.4 Brand link:

There is different type of product exist in a different brand. Same product have different brand. It totally depend on the quality and price .Some brand have the product with cheap rate while other brand have the product with high rate. Some people also habitat to use only branded product. For this reason when they search anything with brand it must be come with top priority. Brand base link mainly generated for searching any product through Brand. If any user search any product through Brand then he might get the searched product with top priority with that relevant brand. For this reason it needs to generate a brand base link for every product such that anyone can easily get the product with the help of searching through any brand of the product. Below figure show the brand base URL

©Daffodil International University

Fig. 4.3.4: Brand base URL for Product

4.4 Summary

All the companies that are dedicated to the search engine are in a strong position in the online world. Sooth to say, half of all the visitors who come to the website for searching something, they all use a search engine. So, for using and popularity of these search engine, most of the visitor does not come to their desire website directly, but via another web page. According to a survey from web indexes, it is considered that almost 4.5 billion client inquiries for a product on online come in a month. Nearly 2.3 billion dollars has been elapsed of the sells in e-commerce site all over the globe. From a survey, it is found that all over the world, at least 85% of customers are using Google as a search engine. Among all the users 33% users are directly going with the top result of Googles SERP (Search Engine Results Pages), and another 75% result made on the 1st page of search result

19

CHAPTER 05

SUMMARY, CONCLUSION, RECOMMENDATION AND IMPLICATION FOR FUTURE RESEARCH

5.1 summary of the study

Product ranking is one of the most useful thing in the era of the Ecommerce. In this time with out ranking a product one cannot expect a good profit from that product. For product ranking, SEO A9 is a more popular algorithm. Amazon is mainly using A9 algorithm for determining the ranked of a product at the time of the search. This algorithm is most likely as the algorithm as the google use for the search result for the product in google search engine. The working procedure of A9 is not expected same as Googles algorithm as this A9 is mostly used the keyword for searching the result and for ranking as well as this is the procedure which considers the keyword as a deciding factor for searching result and also decide which one is displayed first. However, the central inequality between Google and Amazons algorithms is that sales conversion is mostly impulse by A9 algorithm. This is happening because Amazon is a business, and has a vested interest in those things which is most valuable for listing and also valuable for profit. Therefore Amazon will rank listings with a strong sales history and high conversion rate more highly.

5.2 Conclusion

The product which is not positioned well in the websites is considered as low in quality and create a wrong impression over the visitors. PR-SEO can be regarded as useful in this case for ranking the product on the website. There are many rules for improving the visibility and ranking of a product. PR-SEO is such an approach among those rules designed for the ranking product. Getting ranked in the first position of the product list means that people are mostly viewing the product, and PR-SEO can do the task more accessible for the ranking of the product. By giving essential and complete data of a product, the product can be reached at the top position, which does not only help to increase the sell but also helps to grow the E-commerce business.

5.3 Recommendations

Though we mention some related work but its amount is very few and directly there has no detailed work like this on product ranking. I understand all their research process and work style after that i started to fix our research goal. After a hard effort by doing all of the work step by step finally, i am at a stage what can be said it is expected research goal. So, for making this kind of research work it need a tremendous work for guiding through the right path of research. I have experienced some different problems that were inside the starting of my research. In this research Work my supervisor Masud Rabbani sir helped me a lot and guided me for making this research project successful

5.3 Implication for further study

Real time SEO is the future implementation which will take place. Consistent connectedness and AI-controlled, wisely computerized innovations are driving another standard of administration. Peoples are presently expect that each brand cooperation will be simple, customized, and quickly fruitful. Consumers pine for moment access to constant data, items, and administrations – regardless of whether it's "bring me nourishment quick" with Door Dash, or "show me your stock" on Ikea's site, or "Alexa, is it going to rain today?" Advertisers are battling to keep pace – 77% accept continuous personalization is urgent, however 60% of advertisers still battle to customize content progressively. Consistent connectedness and AI-controlled, wisely computerized innovations are driving another standard of administration. Peoples are now presently expect that each brand cooperation will be simple, customized, and quickly fruitful. Consumers pine for moment access to constant data, items, and administrations – regardless of whether it's "bring me nourishment quick" with Door Dash, or "show me your stock" on Ikea's site, or "Alexa, is it going to rain today?" Advertisers are battling to keep pace – 77% accept continuous personalization is urgent, however 60% of advertisers still battle to customize content progressively.

REFERENCE

Inc. MOZ, Copyright 2019 c Moz. [Online]. https://moz.com/learn/ seo/what-is-seo, [Accessed: 9-10-2019].

COPYRIGHT c 2019 QUICKSPROUT OUICKSPROT. [Online]. https://www.quicksprout.com/ecommerce-seo/, [Accessed: 9-10-2019].

Copyright c 2019 RepricerExpress. All Rights Reserved RepricerExpress. [Online]. https://www.repricerexpress.com/amazons-algorithm-a9/, [Accessed: 9-10-2019].

Wikipedia: The Free Encyclopedia.Wikimedia Foundation Inc. [Online]. https://en.wikipedia.org/wiki/PageRank, [Accessed: 9-8-2019].

K Rehman and Muhammad Naeem Ahmed Khan. The foremost guidelines for achieving higher ranking in search results through search engine optimization. International Journal of Advanced Science and Technology, 52(3):101–110, 2013.

Dr. Paramjeet singh Nisha. A review paper on seo based ranking of web documents. In International Journal of Advanced Research in Computer Science and Software Engineering, volume 4, 2014.

Meng Cui and Songyun Hu. Search engine optimization research for website promotion. In 2011 International Conference of Information Technology, Computer Engineering and Management Sciences, volume 4, pages 100–103. IEEE, 2011.

Rakesh Kumar and Shiva Saini. A study on seo monitoring system based on corporate website development. International Journal of Computer Science, Engineering and Information Technology (IJCSEIT), 1(2):42–49, 2011.

Copyright c 2019 Techopedia Inc. Techopedia. [Online]. https://www. techopedia.com/definition/12984/pagerank, [Accessed: 9-10-2019].

[10] LinkedIn Corporation c 2019 Slideshare.net.

APPENDICES

Appendix A: Project Reflection

The purpose of this appendix is to provide an introduction to **Project Reflection.** The group research project was a challenging and enjoyable experience typical of the course as a whole. We have had little exposure to group work at university so it was a nice change to be part of an effective and dynamic team. I think we complemented one another quite well both in bringing together interdisciplinary perspectives and in balancing the work at hand.

The experience taught us that planning and crafting responses takes a longer time in teams than on your own. The extensive effort required was ultimately a good thing. When working alone, you can end up with a result that is identical to your initial plans. In our group, we were constantly developing and refining one another's ideas. It was fascinating just how productive our group meetings were. The time seemed to fly and yet we always got a lot done and managed to help another along the way towards the endpoint of having a substantive policy.

Appendix B: Related Diagrams

The purpose of this appendix is to provide an introduction to Related Diagrams (RD) and pointers to some of the foundational references. An influence diagram B is a compact graphical representation of a decision.

PR-SEO An innovative Approach for Product Ranking in E-commerce

ORIGINALITY REPORT

25%
SIMILARITY INDEX

16%
INTERNET SOURCES

3%
PUBLICATIONS

22%
STUDENT PAPERS

MATCH ALL SOURCES (ONLY SELECTED SOURCE PRINTED)

19%

★ Submitted to Daffodil International University
Student Paper

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	Off		

24