Czech University of Life Sciences Prague

Faculty of Economics and Management

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Bachelor Thesis

Economic analysis of Google Inc.

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Faculty of Economics and Management

BACHELOR THESIS ASSIGNMENT

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Thesis title

Economic Analysis of Google Inc.

Objectives of thesis

The main purposes of this thesis are to give detailed information about Google Inc., to evaluate the economic status of it, to assess the financial situation of the company and to identify its position on a global market.

Methodology

In the first theoretical part of this thesis there will be given some general information about the company using methods of description, synthesis, abstraction, induction and deduction. Then the practical part will include statistical methods, econometric methods, qualitative data description methods and methods of financial analysis.

The proposed extent of the thesis

40 pages

Keywords

Google Inc., effectiveness, SWOT analysis, technical analysis, service, search engine.

Recommended information sources

Aphabet is for Google, the article on the official web-site, Larry Page, 2016

From the garage to the Googleplex, the article on the official web-site of Google.

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Declaration

I declare that I have worked on my bachelor thesis titled "Economic analysis of Google Inc." by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break copyrights of any their person.

In Prague on 15th of March 2018   _____

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Economická analýza Google Inc.

Souhrn

Tato Bakalářská práce je zaměřena na Ekonomickou analýzu společnosti Google Inc. samotný a také její akcie. Skládá se ze dvou částí: teoretické a praktické. Druhy zásob, historie společnosti, burza, NASDAQ jsou uvedeny v první části. Také autor vypráví o Google služby a práce mechanismy firmy.

V praktické části vnější a vnitřní analýzy společnosti je hotovo. SWOT analýza je provedena na základě předchozí analýzy. Navíc, druhá část diplomové práce zahrnuje analýzy akcie společnosti Google Inc.: fundamentální a technické analýzy. Fundamentální analýza je provedena s pomocí finanční výkaz údajů. Technická analýza je provedena s pomocí jednoduchý klouzavý průměr (SMA), exponenciální klouzavý průměr (EMA), klouzavý průměr konvergence divirgence (MACD) a Bollinger bands.

Klíčová slova: Google Inc., efektiva, SWOT analýza, technická analýza, služba, vyhledávač, akcie GOOG, NASDAQ, burza, klouzavý průměr.

Economic analysis of Google Inc.

Summary

This Bachelor thesis is focused on the Economic analysis of Google Inc. itself and also its shares. It consists of two parts: theoretical and practical. The types of stocks, history of the company, stock exchange, NASDAQ are provided in the first part. Also, the author tells about the Google services and work mechanisms of the firm.

In the practical part, the external and internal analysis of the company is done. The SWOT analysis is made on the base of the previous analysis. Additionally, the second part of the thesis includes the analyses of stocks of Google Inc.: fundamental and technical analyses. Fundamental analysis is made with the help of financial statement data. Technical analysis is made with the help of simple moving average (SMA), exponential moving average (EMA), moving average convergence divergence (MACD) and Bollinger bands.

Keywords: Google Inc., effectiveness, SWOT analysis, technical analysis, service, search engine, GOOG shares, NASDAQ, Stock Exchange, moving average.

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1. Introduction

The 21st century is an era of high technologies. In these ages almost all the people use social networks and internet to get more common with different things such as news, weather forecast, currency exchange rates, roads and so on. The biggest and the most known search engine on World Wide Web is Google which was developed by Google Inc.

This company creates new opportunities for the people. World is changing thanks progresses of the global companies such Google. The goal of this corporation is to make the information accessible and easy to use. Google furnishes their customers features for personal and business issues.

Everybody knows that information plays an important role nowadays, information is everywhere what is around, even if people do not notice it. People need to be informed very fast about everything what is happening in the world and Google is the best tool for that.

2. Objectives and Methodology

2.1 Objectives

The main purposes of this thesis are to give detailed information about Google Inc., to evaluate the economic status of it, to assess the financial situation of the company and to identify its position on a global market. Further, one of the main objectives is to inquire types of stocks and classify Google Inc. stocks and its split of stocks. Provision of cost-effective operation of the enterprise is also one of the main goals.

The next central purpose of economic analysis is to prepare information for the adoption of optimal management decisions and to justify current and long-term plans aimed at achieving short-term and strategic objectives of the enterprise.

Evaluation of the company's performance in achieving its goals, the implementation of plans, the level of effectiveness and efficiency of the business, the use of existing opportunities, and the situation on the global market are aims to be observed in the both parts of the thesis. The following intention is an assessment of the degree of financial and operational risks.

2.2 Methodology

In the first theoretical part of this thesis there will be given some general information about the company using methods of description, synthesis, abstraction, induction and deduction. Then the practical part will include such analyses as fundamental analysis, technical analyses, SWOT and analysis of external and internal environment.

The SWOT analysis is made on the base of the analysis of external and internal environment. Then the fundamental analysis is made with the help of data of the company for the last three years (2014 – 2017): income statement and balance sheet.

The technical analysis is made with the help of Simple moving average, Exponential moving average, Moving average convergence divergence and Bollinger bands. The following formulas were used:

$$SMA = \frac{\sum_{i=1}^{n} Pi}{n}$$ (for simple moving average);

$$EMA_t = \alpha \times P_t + (1-\alpha) \times EMA_{t-1}$$ (for exponential moving average).

Realization of the goal of economic analysis involves an assessment of the current situation, diagnosis and prediction of its development and the search for ways to achieve the desired results in the most effective ways.

3. Theoretical part

3.1 Stocks

A stock is a type of security that signifies ownership in a corporation and represents a claim on part of the corporation's assets and earnings. (Investopedia.com [8], 2018)

3.1.1 Types of Stocks

There are a lot of different types of stocks, but scientists isolate the main two.

There are two main types of stock: common and preferred. Common stock usually entitles the owner to vote at shareholders' meetings and to receive dividends. Preferred stock generally does not have voting rights, but has a higher claim on assets and earnings than the common shares. For example, owners of preferred stock receive dividends before common shareholders and have priority in the event that a company goes bankrupt and is liquidated. (Investopedia.com [9], 2018)

Common stocks provide the very right to manage a company that can be carried out personally or transferred to others. The cost of shares is affected by a number of indicators in which the company's profit is an important but far from determining point. So, the market price of shares is still affected by their liquidity, the balance of demand and supply, the prospects and trends of the industry in which the company operates the number of shareholders, the economic and political situation, etc.

Each issuer has its own characteristics, therefore, the cost of shares can vary depending on a number of parameters. Therefore, before buying a particular security, it is important to understand the type of asset selected. For example, when buying shares of companies "blue chips" can only rely on the payment of dividends. It is not worth expecting a big price jump here. The remaining assets may differ in terms of dividends, stability of payments, reliability, profit and risks, which occur in the issuer's work.

Like ordinary shares, preferred shares are securities that indicate the share of its holder's participation in the corporation. From ordinary shares they are distinguished by the following:

- dividends on preferred shares are usually set at a fixed rate;

- as a rule, they are issued with a face value of $ 100 and indicating the amount of dividends in percent (for example, "6% preferred") or in dollars (6 US dollars preferred);

- dividends on preference shares are paid before dividend payment on ordinary shares;

- holders of preference shares have a pre-emptive right to a certain share of the corporation's assets upon liquidation;

- as a rule, holders of preferred shares do not have pre-emptive rights to purchase shares of a new issue and voting rights.

(Investopedia.com [9], 2018)

3.1.2 Types of common stock

1. "**Blue chips"**

"Blue chips" are securities of companies that are distinguished by their long and successful history in the market. Their peculiarity is a stable position, stability of payment of dividends, high cost of shares. Such issuers are leaders in their industries and receive a stable profit for many years.

Many large indices take into account only blue-chip securities, for example, the Dow Jones index or the blue-chip index on the Moscow stock exchange. However, not all shares can guarantee a large profit. As a rule, the higher the level of the issuer and the more stable its business, the lower the dividend. At the same time, it's far from the fact that a large company will show a high profit growth over a long period of time. There are cases when large companies-giants were detained and for several months did not pay dividends to their shareholders.

Such shares are more suitable for investors who prefer stability and regularity of payments, regardless of the size of the latter. The presence of blue chips in the investment portfolio gives a certain margin of safety in the event of an economic crisis. (Mistakesintrading.com, 2018)

2. **Income stocks**

Income stocks are those securities for which high dividends can be obtained. Issuers of such shares are, as a rule, relatively young companies that are already beginning to feel the "taste" of big business. The cost of profitable shares is usually lower than that of blue chips, but the profit on them can be obtained more. At the same time, issuers of profitable shares are very stable companies, with a large cash turnover and good profit. The only difference is that they are ready to pay higher dividends so far. (Mistakesintrading.com, 2018)

3. **Growth stocks**

Growth stocks are securities, the value of which will increase in the near future (as a rule, these are undervalued shares). The peculiarity of such assets is a high level of the price / profit ratio. On the other hand, dividends cannot be paid for such shares. It is quite simple to determine that the shares of such issuers have already passed the period of growth - management ceases to invest in business development. (Mistakesintrading.com, 2018)

4. **Value stocks**

Stocks of value are securities with a reverse (low) ratio of price / earnings ratio. The main reason for this phenomenon can be a sharp decline in sales in the last quarter, force majeure in production and so on. Such shares are very fond of patient investors who are willing to wait a few years and in the future to make good money. At the same time, there is always a risk that ordinary shares of such issuers will not raise in price. (Mistakesintrading.com, 2018)

5. **Cyclical stocks**

Cyclic stocks are those securities, the value of which varies with changes in economic activity. The price of such shares may vary along with the main economic indicators. In the period of economic growth, the quotations of such shares will also rise. With a slowdown in economic growth or more serious problems, the value of cyclical securities will also creep down. For example, this is how the shares of construction companies or well-known auto manufacturers behave. The value of their securities

largely depends on the macroeconomic situation on the market. Hence the price jumps. (Mistakesintrading.com, 2018)

6. Defensive stocks

Defensive stocks are securities of those issuers that almost do not react to the decline in prices during the economic downturn. For example, it could be pharmaceutical companies or food manufacturers. But defensive stocks have a minus - their price is almost not growing during the economic recovery. Often investors buy shares of such companies in advance, without waiting for the deterioration of the economy and hold them until the situation stabilizes. (Mistakesintrading.com, 2018)

7. Speculative stocks

These stocks have the greatest potential for price growth in the future, but at the same time they bear the greatest risks for the investor. When serious financial problems arise, the issuing companies may completely curtail their activities. Often the issuers of such shares are newly formed companies that are at the stage of formation. To invest in these assets, you need to have strong nerves. (Mistakesintrading.com, 2018)

8. Penny stocks

Penny stocks are securities of a speculative nature, but having a low price. As a rule, they can be found on the over-the-counter market, where stocks of low-liquid companies are traded. Such shares are of particular interest to illegal market operators. When buying such assets, there is always a risk of earning or completely burn out. (Mistakesintrading.com, 2018)

9. Foreign stocks

Stocks of companies from other countries (shares of foreign companies) are very attractive for domestic investors. For example, the American stock market differs by the big liquidity, where confident and experienced investors like to make purchases. The purchase of such assets allows you to get a good profit in the future and diversify your investment portfolio.

(Mistakesintrading.com, 2018)

3.1.3 Types of preferred stock

1. **Cumulative preferred stock.**

   This is the most common type of preferred shares: it is stipulated that any outstanding but non-mandatory dividends are accumulated and paid on these shares before the announcement of payment of dividends on ordinary shares. (Investopedia.com [7], 2018)

2. **Non-cumulative preferred stock**

   Holders of these shares lose dividends for any period for which the board of directors of the corporation did not declare their payment. (Investopedia.com [7], 2018)

3. **Participating preferred stock**

   These shares give their holders the right to receive additional dividends in excess of the declared amount if the dividends on ordinary shares exceed the announced amount (i.e. they give their holders the right to participate in the profit balance). (Investopedia.com [7], 2018)

4. **Convertible preferred stock**

   These shares can be exchanged for a fixed number of ordinary shares at a specified rate. For quite obvious reasons, the dynamics of the exchange rate of these shares is much closer to the dynamics of the rates of common shares compared to other preferred shares. (Investopedia.com [7], 2018)

5. **Adjustable-rate preferred stock**

   Preference shares with adjustable-rate preferred stock. Unlike preferred shares with a fixed dividend rate, dividends on these shares are adjusted (usually quarterly) based on the dynamics of interest rates on short-term government securities or the rates of some instruments of the short-term capital market. (Investopedia.com [7], 2018)

6. **Callable preferred stock**

Issuing these preferred shares, the corporation reserves the right to withdraw them (right to "call"), i.e. to redeem them at a price with an allowance to face value. The above characteristics of preferred shares can be combined: for example, there may exist convertible, cumulative, participating preferred stock. (Investopedia.com [7], 2018)

3.1.4 Stock split

Corporations, whose shares have good results, can split them, placing an additional issue among the already existing group of shareholders. The most common type is the division of shares into two for the price of one, other words, a one share becomes two.

The price per share according to the changes is immediately corrected, as buyers and sellers are aware of the division (in this case, the division in half). Usually, companies decide to divide shares if their price becomes very high.

High stock prices are problematic for companies, because they create the impression that the company's shares are too highly valued. Dividing the shares, the companies hope to make their shares more attractive, especially for those investors who cannot afford high prices. (Investinganswers.com, 2017)

Shares can be divided into two for the price of one, ten to one, or in any ratio that seems acceptable to the company. (More rarely you can observe "reverse split", when the number of shares decreases, for example, one stock is made up of two).

Despite the fact that technically for the investor nothing has changed after the division of shares, in reality, often there are changes. Separation of shares often leads to an increase in demand, as it makes them more accessible to small investors, and, in addition, usually gets the favorable attention of the media.

The stock split is interpreted by some analysts, as a sign that the company's management is confident in the further increase in the price of its shares. Of course, in reality, there is no guarantee that this will happen. (Investinganswers.com, 2017)

3.1.5 Class of shares

"The multi-class share structure at Google came about as a result of the company's restructuring into Alphabet Inc. (NASDAQ: GOOG). Founders Sergey Brin and Larry Page found themselves owning less than majority ownership of the company's stock, but wished to maintain control over major business decisions. The company created three share classes of the company's stock as a result. Class-A shares are held by regular investors and carry one vote per share. Class-B shares, held primarily by Brin and Page, have 10 votes per share. Class-C shares are typically held by employees and have no voting rights. The structure gives most voting control to the founders, although similar setups have proven unpopular with average shareholders in the past." (Investopedia.com,

2018   [5])

The company decided to split its shares in April 2014 because the founders Sergey Brin and Larry Page wanted to keep company under ruling and control of themselves. When a company starts selling way too many shares and goes public, founders can lose control.

As already mentioned, Alphabet's main mission is to organize and make easier to access the world's information to its founders' vision. However, when a company goes public, it means that there are visions not only of founders but visions of shareholders, which can differ for sure. That's why to save the main goal of a company, founders can split shares of their company. The stock split is a great opportunity for Larry Page and Sergey Brin which allows them to take advantage of public-market liquidity while still holding voting rights and not losing control of the company. (Investopedia.com, 2018 [5])

Class A

The peculiarity of these assets is one-time commission fees. Most often, when buying such a security, the funds are collected only upon purchase and only in very rare cases in the sale (to compensate the seller's expenses). The features of Class A shares include the minimum management cost ratio (if compared with securities of other classes). This is possible, due to the fact that commissions are included in the total cost of the purchase or in the total cost of the asset redemption. (Investopedia.com, 2018 [6])

Advantages of Class A shares:

- The minimum commission fee, which is especially important for long-term investments. You can agree to pay the commission and further dispose of the paper at your discretion;
- A transition points.

  When making a specific amount of investment, you can get a discount in the form of a smaller commission. For example, the first point of the transition can be achieved after 20 thousand dollars and reduce its costs;

- Accumulative discount.

  This option allows the investor to receive an ever increasing discount on the commission, depending on the amount of investment;

- Letter of Intent.

  Sometimes a discount can be obtained only by announcing the intention to exceed a certain amount of investment in a specific period of time. But such a bonus is not provided by all investment companies.

Disadvantages of Class A shares:

- high initial investment

  For many investors to reach the transition point - this is an unbearable burden. It is even more difficult to realize their obligations, if they are reflected in the letter of intent, where there are deadlines;

- profit in the long term

  Such shares will not suit investors who wish to receive income in the near future. Class A shares are designed for a long-term perspective.

Class B

The peculiarity of such shares is the charging of a commission for the sale of an asset. Typically, Class B securities are characterized by a high management ratio. In this way, the funds try to increase their income. On the other hand, Class B shares will be profitable for investors who are going to hold assets for a long time. The peculiarity is that the longer the share is on hand, the lower the commission fee when selling. At the expiry of the agreed period (as a rule, 8 years), shares of class B are transferred (as a rule, automatically) to class A. (Investopedia. com, 2018 [1])

Advantages of Class B shares:

- Absence of commission in the process of purchase, which allows you to rely on profit from the entire amount of investment;
- deferred commission

  The longer the shares are held by the investor, the lower the commission will be in the sale of the asset;

- the ability to convert

  In the event of a certain time, shares of class B are converted to class A. For an investor, this is a real benefit because for Class A securities the costs are much lower.

Disadvantages of Class B shares:

- a long period of profit

  If the asset is presented before the agreed repayment period (5-8 years), it will be necessary to pay commission for the sale of the security;

- there are no transition points

  In the process of owning shares of class B there are no transition points, that is, the size of the commission does not depend on the volume of investments;

- High operating costs

Typically, holders of Class B assets are forced to tolerate higher operating costs than other types of shares.

Class C

The peculiarity of these securities is the need to pay commissions annually during the entire period of ownership of the share and the existence of the fund itself. In addition, class C shares have too high management costs, if compared with the assets described above. This can be explained by the need for an annual commission payment, rather than a one-time fee, as it is permitted in securities A and B classes. (Investopedia.com, 2003)

Advantages of securities of class C:

- no commission payment during the purchase

  When investing in securities of class C, you do not need to pay a commission, which allows you to get income from the entire investment;

- The minimum commission for the sale of an asset

  Most often, when an asset sale transaction is made, the investor makes a minimum payment - up to 1% of the value of the asset;

- the opportunity to save on commission when selling

  If the share is on the hands of the investor for more than one year, then the funds are not charged.

Disadvantages of Class C shares:

- availability of commission fees for the sale

  Despite the low interest, the investor still has to part with a certain amount when selling the asset. Against the background of the fact that the annual fee has already been paid, such spending may seem very significant;

- high coefficient of operating expenditure

Despite the fact that the coefficient of operating expenses of shares of Class C is lower than that of Class B assets, but it is much higher than that of Class A;

- lack of conversion

Holders of a Class C stock cannot count on converting a security to Class A. As a consequence, there is no possibility of achieving a lower operating cost ratio. Securities of this class are not suitable for long-term investment, because every year you have to pay a commission to an investment fund, and suffer losses. If you hold the asset for a long time, the total costs can be quite impressive;

3.2   Stock Exchange

The stock exchange is a complexly organized market in which brokers and traders buy and sell securities like assets, commodities, currencies, futures and options. The stock exchange can use the clearing house to cover defaults or operate without an intermediary. (Investopedia.com [10], 2018)

Most of the securities are sold through a specially created institution - the stock exchange. At the head of the exchange is the Exchange Committee, which allows for the sale of securities after their verification and determines the rules for trading them. Directly all transactions on the stock exchange are made by special intermediaries - brokers or brokers, who specialize in certain transactions, have information about the deals being concluded, stock prices, etc. According to the charter of stock exchanges, intermediaries usually do not have the right to make their own transactions, but in practice this rule is rarely observed. In some countries, exchange intermediaries are public officials (for example, in France), in others - representatives of private firms (for example, in the United States, Great Britain). The size of circulation of securities, as well as the intensity of this process, is currently characterized, for example, by the fact that in the United States and Japan, the market price of shares quoted on the stock exchanges of these countries exceeds $5 trillion., i.e. about 80% of the shares (at cost) for the year change their owners. It must be borne in mind that the exchange is not the entire securities market, in addition to it, there is a huge over-the-counter turnover.

The largest stock exchanges in the capitalist countries are the New York exchanges (the largest in the world, 85-90% of all US securities are traded here), London, Tokyo, Paris, etc. Each country usually has its own stock exchange (there are 10 of them in the US). The number of stock exchanges is constantly increasing, but the main ones are still located in the centers where financial capital is concentrated.

The size of the securities market reflects its role in the movement of capital. This role is so significant that it will not be an exaggeration to say that without understanding the mechanisms of circulation of securities it is impossible to penetrate into the essence and many processes of modern capitalist reproduction. (KENNON, What is a Stock Exchange, 2017)

The securities market is a system that has a fairly complex, ramified structure. The classification of this market can be carried out on different grounds. First of all, it is necessary to identify market segments in accordance with specific types of securities in circulation. In this regard, the markets of bonds, shares, as well as a number of new special types of securities, which include convertible shares, warrants, futures and options are allocated. Financial futures are standard fixed-term contracts concluded between the seller (the issuer) and the buyer, for the sale of a certain financial instrument at predetermined prices in the future. As transactions are concluded on the exchange, it gives a guarantee of their execution. Options also represent fixed-term contracts for a particular product or financial instrument that differ from futures in that they provide for the right, and not the obligation to conduct an operation that the buyer of the option uses. Options transactions are conducted on the same exchanges as deals with urgent futures contracts, although there are also special stock exchanges for options (for example, the Chicago option exchange already mentioned).

One of the varieties of options are warrants, giving their holders the right to purchase certain stock values. They differ from options for a longer period and the fact that an option is usually issued for an existing asset, while the seller's obligation to sell warrants, for example, shares (the most common type of warrants) leads to the creation of a new share capital.

The securities market is also subdivided into the primary market, where capital is mobilized through the sale of new securities, and secondary, on which previously issued securities are traded. Finally, the aggregate securities market in the form of turnover organization consists of exchange and off-exchange transactions with securities. (KENNON, What is a Stock Exchange, 2017)

3.2.1 Stock Exchange operations

The stock exchange is the most organized part of the securities market. It is characterized by unified rules for conducting operations with securities. According to their legal status, stock exchanges can be associations (USA), joint-stock companies (Great Britain, Japan) or government bodies subordinated to the Ministry of Finance (France). Members of the exchange can only be specialized on transactions with securities exchange (brokerage) firms. Key positions on the largest stock exchanges usually take 10-15 leading brokers, each of which has a huge equity capital. (KENNON, What is a Stock Exchange, 2017)

For a corporation to obtain the right to quote its shares on the stock exchange is not easy. Adoption of shares of the corporation for quotation on the New York Stock Exchange, for example, means its entry into the "high society" of American business. Only corporations with first-class reputation, having a large number of shareholders and the market value of shares, measured at least hundreds of millions of dollars, are achieving this right.

Most of the transactions performed on the stock exchange have an unproductive nature: in their content they represent only the movement of value (or title of value) from one source to another. There is only one operation of the stock exchange, which can be considered as productive - this is the placement of new securities. In cases where the state places a loan or when a new joint-stock company is being created, usually capital investment occurs, directly or indirectly, incentives are created to expand the scope of production. Such operations also entail an intensification of the processes of concentration and centralization of capital. (KENNON, What is a Stock Exchange, 2017)

For a day on the world's largest stock exchanges, operations with tens of millions of shares are carried out. The main types of exchange transactions are the direct purchase and sale of shares, as well as the conclusion of futures deals. Like any other market, the exchange not only mediates the circulation of capital invested in securities, but is also the arena of speculative frauds. A significant part of the exchange operations is focused on obtaining speculative profit in connection with the use of constant fluctuations in market prices (rates) of securities. Exchange speculative game can be carried out both in terms of increasing the stock price (players who adhere to this strategy are called bulls), and in the hope of falling rates (they are called bears).

When executing speculative transactions, not only profit is taken into account, but also the degree of risk. All transactions on the stock exchange can be divided into three groups:

transactions with a full guarantee; normal-speculative transactions; super-speculative transactions, the risk of which can not be taken into account.

The first group includes operations with securities of the state, TNCs; to the second - with shares and bonds of industrial firms, banks, etc.; to the third - with new issues of securities of little-studied companies, which first fell into the exchange turnover. Naturally, the risk can be fraught with different consequences.

Urgent transactions are common on the stock exchange. This type of exchange transactions means the conclusion of a transaction that gives the right to purchase within a specified period a certain number of shares at the rate established at the time of the conclusion of the transaction, or obliging to make this purchase. It is clear that the buyer of securities wins if in the period before the purchase of shares there is an increase in their rate.

In addition to unified securities services, stock exchanges play an important informational role today, supplying holders and potential buyers of shares with operational information (Joy-Jones, SP / 300 and SP / 500 indexes) and detailed analytical reports containing also forecast of the conjuncture of the securities market. However, despite the availability of information and a wide range of consulting services, it is extremely difficult to predict the dynamics of current market prices (rates) of specific corporations: the number of factors, including the non-economic order that exert their influence on them, is too great.

The essence of all operations conducted on the stock exchange was summed up by F. Engels: "The exchange is an institution in which the bourgeois exploit not one of the workers, but one another", i.e. in the course of exchange transactions, the surplus value created in the sphere of material production is only redistributed among the owners of securities.

3.2.2 Types of Stock of Exchanges

1. *Stock exchange* allows a high volume of trading in securities maintaining high liquidity and market value of securities.

   There are two main stock exchanges:
   - NASDAQ (National Association of Securities Dealers Automated Quotation)
   - NYSE (The New York Stock Exchange), (Investopedia.com, 2003)

2. *Futures* provide services for buying and selling of futures contracts. Currencies, commodities and securities are the assets of the futures.

   The major stock exchanges:
   - CME
   - NYMEX (Investopedia.com, 2003)

3. *Foreign exchange market* is the market where national currencies are bought and sold with a specific rate. This rate is formed on a base of supply and demand at a particular period of time. (Investopedia.com, 2003)

4. *Commodity.*

   The main categories are raw materials (oil, gasoline, etc.) and energy, precious metals, products of the agricultural sector.

   This type of exchanges is divided into two types: specialized and versatile. Specialized type involves a small product orientation: they trade one category or even one kind of goods. (Investopedia.com, 2003)

5. *Options exchange* the stock exchange specialized in the sale of debt financial obligations.

   The main stock exchanges:
   - AMEX
   - CBOE (Investopedia.com, 2003)

3.2.3 NASDAQ

NASDAQ (cont. from the National Association of Securities Dealers Automated Quotations system) is an American exchange market, where the stocks of high technological companies (software, electronics manufacturing, etc.) are bought and sold. (Investopedia.com, 2003)

Now the NASDAQ exchange has more than 3,700 world corporations and firms from all over the world. This is one of the most liquid sites with the maximum level of volatility. Every day the NASDAQ exchange continues to develop more and more, attracting the shares of new well-known global brands and investors.

Advantages of the stock exchange:

- American exchange NASDAQ attracts not only traders, but also investors who are tempted by the opportunity to get a high level of volatile resource, in contrast to competitors, which is the main advantage.

- NASDAQ shares - this is a powerful tool for finance, which will bring the traders a good income.

- Stock exchanges are securities of firms that are associated with high technologies. From the very beginning of creation, the American exchange was aimed at these companies and continues to cooperate with them until today.

- NASDAQ is traded by such famous world leaders as Google Inc., Intel Corporation and Microsoft Corporation. Now the stock exchange is increasingly coming out and residents of the CIS countries. (Investopedia.com, 2003)

Disadvantages:

- Among the shortcomings can be noted a large spread, but the risk is a noble business.

On the NASDAQ exchange, you can go out with the help of SDG Trade, where specialists will provide all the necessary advice, they will be offered to try and tell in more detail about the demo account of the exchange, and, of course, will help not only settle in this resource, but also get a big profit. (Investopedia.com, 2003)

3.3   Alphabet Inc.

"Google is not a conventional company. We do not intend to become one."
(Sergey Brin and Larry Page in the original founders letter, 2006)

Alphabet Inc. is a conglomerate which was founded October, 2 in 2015 by Larry Page and Sergey Brin. This company is actually a "collection" of other different companies where the biggest is Google Inc. It is a giant machine where every company has a strong CEO who runs the business with the help of Sergey and Larry, President and CEO of Alphabet Inc. (abc.xyz, 2017)

History of Google Inc.

Google is a well-known word for all the people using internet. Everybody knows it and most of us cannot imagine lives without Google. This company has a great history. Larry Page and Sergey Brin created a new search engine in the room of the dormitory of Stanford University.

That was the start of Backrub search engine which was later renamed Google. Larry and Sergey wanted to organize the world's information and they wanted it to be accessible, convenient and useful. That is why the name was a play on the mathematical expression for the number 1 followed by 100 zeroes.

In next few years Google was spotted by investors of Silicon Valley. Andy Bechtolsheim wrote a check Brin and Page for $100.000. The interesting fact is that officially the company was founded after the first funding into it. It was placed in the garage in suburban Menlo Park, California, owned by Susan Wojcicki (employee #16 and now CEO of YouTube). First on 4th of January 1996 it was incorporated as a privately held company but then on 19th of August 2004 the company started selling its shares on the stock market. Then Larry Page, Sergey Brin and Eric Schmidt agreed to work together at Google until 2024.

In the middle of 1999 Google received a grant of venture capital funding in amount of $25 million. At that time this search engine was processing about 500,000 requests every day. It was nonsense for those ages.

Then in 2000 Google became a client search engine for Yahoo!, this meant blowing up in activities of the company. By 2004 users were searching information in Google 200 million times a day. It was only a beginning of the growth of Google Inc. In 2011 the amount of queries searching by users reached number of three billion per day. The company's name became so ubiquitous that it entered the lexicon as a verb: to google became a common expression for searching the Internet.

As already mentioned, the first initial public offering was in 2004 and Google Inc. offered 19,605,052 shares. The price was $85 per share. All shares were sold on online auction. And after the auction the capitalization of Google Market reached $23 billion. The vast majority of the 271 million shares stayed under the control of Google Inc. and thanks that a lot of Google employees became instant millionaires as being owners of securities of this company.

Over time the stocks were rising in price and in 2007 the price exceeded $700 per one share. Currently in the end of 2017 the price is shown on the NASDAQ (National Association of Securities Dealers Automated Quotation) stock exchange and it is about $1050 per share. Nowadays, more than 60,000 employees work for Google. The headquarters of this company are Googleplex, Mountain View, California, U.S., but Google Inc. has their offices in 50 different countries. They started from the dorm room, to the garage, and to this very day.
(britannica.com, Hall & Hosch, 2017), (google.com)

3.3.1 The main Google services

3.3.1.1 Google Drive

Gmail is the google free mail services which are available on the web and also everybody can get it for free as a mobile App for Androids and iOS. Gmail was launched in 2004 and now the amount of users exceeds 1 billion people. This service is voted as the most popular service in 2012. Gmail is available in 72 languages.

A user can get an email with max 50 megabytes size (attachments are included). If a user wants to send emails with bigger size with some files, there is a possibility to insert them from Google Drive into the message.

3.3.1.2 Google Drive

Google Drive is one of the convenient services of Google. It was started on April, 24 in 2012. Thanks that service people can storage up to 15 gigabytes of information for free or up to 30 terabytes through optional paid plan. Google Drive can work with all the formats and files. These files can be opened from different devices. It can be a laptop, PC or smartphone. There is a special App for Androids and iOS which everybody can install for free.

Also every user has a very comfy option to access and change the certain files to another person or a group of people. Today about 800 million people use this service in everyday life to share the materials.

3.3.1.3 Google Maps

Google Maps is the most known mapping service developed by Google in February 2005. It offers not only the driving directions but business locations, buildings, restaurants and so on. With the help of this service people can explore panoramic 3D-pictures and different locations around the world. It can be installed on smartphone and used offline but only for a limited period of time. This App is also multilingual and used from all over the world.

The App is widely used by car drivers in different places for knowing actual situation on the roads and the information about the current traffics. It displays the speed of transport on a certain road with a colored map. For sure this App needs to have an access to geolocation to easily cope with the tasks. (google.com)

3.3.1.4 Google Docs

It is a free service, which allows people create, edit, open and share files from different devices such as laptop, smartphone or PC. An access to the files is possible only online. There are three operating systems for this service: web, Android and iOS. This service can work with OpenOffice, Microsoft Word documents, RTF, HTML or plain text files. The convenience of it is that it is available in 83 languages, what helps people collaborate without any borders.

3.3.1.5 Google Translate

It is a free service developed by Google which supports more than 100 languages. Google Translate is available as an App for iOS and Android, as a web interface and as an API. Over 200 million people from all over the world use this service daily.

Nowadays Google Translate uses Google Neural Machine Translation (GNMT) which was developed by Google in 2016. This system allows translate not only words or phrases, but sentences which fully express a meaning of a translated sentence. (quora.com, 2016)

3.4 Google and its competitors

Google is not just a search engine and grew so much that it had to create an Alphabet holding, which now manages numerous industrial associations, including the search engine itself. Expanding, Google comes to markets where formerly other players dominated, and this sometimes leads to transformations in competing companies.

The first competitor of Google is **Microsoft**. This company owns Bing search engine, which is a competitor for google, even though google has more users all over the world. Microsoft does not stand still, but it improves the quality of use of its search engine. Cloud computing is the next platform where Google and Microsoft are competitors. (Eskify.com, 2016)

One of the biggest competitors of Google is **Facebook**. This is not just a social media but search engine as well. However this search engine is mostly focused on online video searching what puts it in competition with YouTube, which is owned by Google. Facebook is also one of the biggest sources of news what makes these two companies competitors as well. (Searchengineland.com, 2016)

Yahoo is the next competitor of the company. They compete in search functions, emails and news. (Eskify.com, 2016)

Apple is the competitor of Google regarding the smartphone market. Google Play is also a rival of ITunes, what can prove the pressure on Apple. (Eskify.com, 2016)

Amazon is the biggest competitor of Google as it was mentioned by Eric Schmidt (the executive Chairman of Google's parent company). Amazon is known as one of the most potent search engines on internet. Amazon owns app store, which is not possible to download for Android. However Amazon app store does not allow people to download Google's services (Gmail, Google apps, YouTube). (Eskify.com, 2016), (Searchengineland.com, 2016)

3.5 How Google works. Advantages and disadvantages.

3.5.1 Indexing and promotion of sites on Google

Over the long years of its existence, Google has never lost its leading position, remained the most popular search engine on the Internet, in no small part due to the ease of optimization and promotion. To issue a resource in search results, it passes the indexing of Google. The robot enters the site and analyzes its contents, and then adds all the information it receives to a certain database of its search engine. Obviously, if there is no page of the site in the index, the search engine will not be able to give it out in the results, since it knows nothing about it.
The most important indicator of website traffic up the career ladder is PR (Page Rank) - the value of Google's citation index. It has a serious impact on the number of impressions of the site, its visitors, and, consequently, on the amount of income the portal brings to its owners.
The speed of indexing of sites by search robots Google is amazing. New pages discouragingly instantly appear in the search, if the resource is positively evaluated and indexed, and its robots are checked almost immediately after appearing on the hosting, provided that this hosting is in the database of the search engine. There is no need to immediately link to a new site.

Due to its loyalty and variety of web services, Google is clearly dominating among search engines. Constant tightening of the work of Yandex's algorithms with its often inadequate filtering of sites that seem to him to be substandard plays with him in some way a cruel joke, forcing to lose leadership in the Runet. Google and the market of contextual advertising has emerged as a leader, and as for the provision of information services and applied utilities to surfers and webmasters, he has no equal at all.

3.5.2 Features of search engine optimization and promotion in Google

Google for webmasters, optimizers and moneymakers means much more than just a search engine. To achieve high positions in this system all are striving. To determine the value of sites created and working tools and utilities. Each appeared site passes through a wide range of filters, research and analytical research.

Promotion of a site in the Google search system is a very long, important, but not a complicated process.

It includes:

- text optimization, by creating original content containing search words and phrases from frequent use in the range of 5-20%;
- creating at least 100 pages of useful text;
- creating a simple website design, without heavy elements (the text should be larger than the graphics);
- creating an extremely simple site structure, with a minimum page size;
- regular checking of the passage of indexation;
- gradual laying out of the text, a slow and daily increase in the text mass;
- increase in the number of external links of a thematic nature
- the distribution of keywords once in title, H1, description, in the text of the link, in bold or italic, at the top of the page;
- a lot of other important points and factors.

Google indexes easily. Often, the webmaster does not even have to do anything for this, but you can manually speed up the process.

(Whittaker, Arbon, & Carollo, 2012)

3.5.3 Google Algorithms

Powerful tools help such giants as Google, always be one step ahead of the user. Algorithms of the system are already so perfect that they virtually eliminate the participants in the search process from having to think much. Perhaps, computer algorithms in the near future will begin to anticipate the needs and wishes of a person, or turn us all into puppets.

Currently, the Google algorithm has already freed the user from the need to sort the material, because it only produces relevant results. With the help of these same algorithms and

computer, humanity is subjected to total surveillance and manipulation. On the Internet with their help you can predict and simulate the needs and movement of the user. Algorithms allow you to track IP addresses, see which sites are visited and at what time, count clicks, collect information on social networks, and so on.

For its first search algorithm, Google paid $ 193 billion, but the result of such spending was that the company received strict control in the search market. In the near future, the newly formed verb "google" can completely displace the verb "think" if it is required to answer any question, as, indeed, and replace the whole process of brain activity. The human model of thinking and accumulating information is changing.

Currently, Google uses and develops the following algorithms:

- News algorithm for supporting news services, such as Google News, where for a couple of seconds you can find information about everything that is currently happening in the world. Under the assumptions of the researchers, journalistic analyst will soon completely replace this news algorithm.

- Algorithm for business or ranking algorithm - a decrease in the issuance of low-quality sites. Any company can become successful, or unsuccessful because of the whims of Google's search algorithm.

- Social algorithm of Edge Rank for searching through Facebook lost connections - friends, colleagues, classmates, etc. Social algorithm is associated with software that is able to analyze and recognize any photo uploaded to the service.

- Other algorithms.

Sites Google places on the content of the page and the presence of key phrases in the title and description. The robot reads the meta description tags, keywords, takes into account the popularity of your page. Get a high rating is not difficult: play the game with the search engine honestly. If you do not have hidden links on your site, broken text, redirects, cloaking, cloned content, doorway, then success is guaranteed. Google better not try to cheat. Bypassing PageRank or search engine ranking is impossible, so do not seek to exchange links or leave mass signings in guest books. The best is to spend time developing quality and useful content, as well as to honestly promote your resource. (Whittaker, Arbon, & Carollo, 2012)

Advantages of Google

Google differs in some ways from the other global search engines. If Yandex, first of all, is a search, and then everything else, Google is a high-quality monopoly services, for

example, YouTube and Blogger. All of them are maximally integrated into one another and are in eternal dynamics. Only three national search engines in the world have managed to withstand this American giant: Seznam.cz in the Czech Republic, Baidu.com in China and the Russian leader Yandex.ru.

The main advantage of the Google search engine is everyone is called easiness of use. There is no doubts about it. From the very beginning, the developers of the search engine sought to create a system accessible to any user of the network, regardless of its capabilities and the availability of any skills or knowledge. That's why Google's success is undeniable. It was and remains the simplest and most convenient Internet resource in the world for searching.

Among other positive qualities can be noted:

- no need to use special characters when entering keywords for search, for example, quotes, case letters, etc .;
- the presence of a huge database, which has more than 3 billion pages and is considered to be one of the largest in the world;
- high speed of work - almost instantly after sending a request, the user receives results (it takes half a second), thanks to new developments that made it easier to find pages with search results, minimize graphics, advertise on them, shorten texts with descriptions, etc .;
- maximum accuracy of information, i.e. full match of search results;
- availability of additional functions, for example, the ability to retrieve information from pages that have already been closed.
- accounting for the quality of the pages when searching, not just their number;

Disadvantages of Google

Despite that fact that this search engine may seem perfect, there are no perfect things in the world, so Google also has some disadvantages.

- constant appearance in the search results of links to sites with outdated and useless information, resulting from the principle of perpetual storage of information;
- appearance in the search for sites under development, which also follows from the virtue of Google - its speed of indexing sites;
- the lack of the possibility of searching for specific grammatical features of words, accents;

- the complexity of searching for abstract queries: Google works better with more specific queries;
- too much information for large queries, because search results are not grouped into categories (Google operates a directory system for categorizing sites, but users rarely use it).

In despite of the shortcomings, Google is constantly improving and continues to be the fastest and most efficient system.

4. Practical Part

4.1   Analysis of external and internal environment

External environment are factors that are not controlled by the firm, to which it must adapt. In the external environment, the micro- and macro environment is allocated.

For Google from the macro environment, the following factors have a particular impact:

Economic situation

Internet - the scope of the company - a structure that is weakly dependent on the economy. Nevertheless, the general unfavorable economic situation may affect the price of the company's shares on the stock market, which will immediately affect the state of the corporation.

Political situation

As with any organization, the political situation in the world affects Google Inc. Changing legislation - has long been considered one of the most serious stumbling blocks in developing strategies.

Socio-cultural situation

Modern man cannot imagine his life without the Internet. In this regard, he constantly needs a purposeful, fast, systematic search for information. But a few decades ago the Internet

was just a dream. Now the global network is a part of the culture of modern society, and while it is such, this factor will only contribute to the development of the company.

Physical and geographical conditions

Google Inc. is a multinational corporation with many branches around the world. Such a territorial scope allows you to more fully inquire about the desires and specifics of the consumer.

Scientific and technical development

One of the values of the company is the belief that the possibilities to satisfy the most diverse needs for information are unlimited. Scientific and technological developments are the factor that helps the corporation, thanks to the amazing ability to keep track of innovative inventions, to keep pace with the times and to amaze its consumers by guessing its desires.

International situation

Carrying out its activities around the world, the company follows the international situation carefully, as the success of Google Inc. lies precisely in its multinationality and widespread prevalence in the world. Therefore, the company should not lose its partners in other countries because of possible international conflicts, etc.

Speaking about the microenvironment, it is possible to note such *factors as*:

- Competitors

The company owns the world's first (77.04%) Google search engine, which processes 41 billion 345 million requests per month (62.4% market share). In this regard, competition is not so significant factor, although in some markets Google is not so impressive.

- Consumers

The company works for an audience of all ages and levels of prosperity.

- The state

It is very difficult to meet the requirements of all states where Google Inc. conducts its activities. Due to the specifics of the product offered by the company, unforeseen situations that may lead to legal proceedings are possible.

Based on the analysis of the external environment, you can create a list of opportunities:

- Increase Internet Users in the World
- Increase in the amount of advertising
- New acquisitions
- Mastering new markets
- Increase in the share of the international market
- Improvement of technologies
- Weakening competitors
- Association with a successful company
- Expansion into non-Internet markets (creation of a magazine, TV channel, etc.)

To assess the possibilities, the method of positioning each particular capability on the capability matrix is used (Figure 1).

Table 1.1 Matrix "probability/influence" for positioning the capabilities of the external environment.

Influence/Probability	Strong	Moderate	Small
High	Increase Internet Users in the World	Mastering new markets	Increase the number of ads
Average	Improvement of technologies	New acquisitions	Increase in the share of the international market
Low	Association with a successful company	Expansion into non-Internet markets	Weakening competitors

Source: Own made table based on analysis above.

Similarly, after the work done, a list of environmental factors that have a negative impact on the enterprise can be formed, that is, a list of threats:

1. The emergence of new competitors

2. Strengthening of old competitors;
3. The Google brand is gradually dissolving in the names of the companies being absorbed;
4. A more personalized and detailed search will lead to even greater problems with the law;
5. Google's scale can create problems when updating or integrating new search technologies;
6. Google may get stuck in the lawsuits regarding the system information being found;
   - Competitors can integrate their search engines into software;
   - Loss of market share due to the unification of competitors;
   - International conflicts

By positioning each of the threats in terms of the degree of influence and probability of an offensive, a matrix of threats is shown below. (Table 1.2).

Table 1.2 Matrix "probability/influence" for positioning threats to the external environment.

Influence / Probability	Heavy	Medium	Light
High	Problems with law	Combining competitors	Strengthening competitors
Average	Threats of ships	Dissolving the brand	New competitors
Low	Problems updating	Integration of search engines into software	International conflicts

Source: Own made table

The matrices given in the form of Table 1.1 and Table 1.2 allow identifying only those possibilities that are of great importance for the organization, and they must necessarily use those threats that pose a very great danger to the enterprise.

Based on the results of Table 1.1 and Table 1.2, a list of the most significant opportunities and threats for Google from the external environment can be compiled. For a more complete presentation, it is necessary to rank the received data in descending order according to the degree of their impact on the organization (Table 1.3).

Table 1.3 External threats and opportunities.

№	Capabilities	Threats
1	Increase Internet Users in the World	Problems with law
2	Mastering new markets	Threats of ships
3	Improvement of technologies	Combining competitors

Source: Own made table

Thus, external factors were identified that had the greatest positive or negative impact on the company.

Analysis of the internal environment

Analysis of the internal environment is a managerial survey of the functional areas of the enterprise in order to determine its strengths and weaknesses.

To fully analyze the internal environment of Google, you need to explore four functional areas:

- structure;
- resources;
- organizational culture.

Analyzing the organizational structure of the firm, it can be concluded that it corresponds to existing corporate goals and objectives. Each employee is responsible for the work performed by him, according to the post. Departments and departments interact with each other due to people occupying leading positions, who also manage personnel in their field.

Organizational culture in Google is at the highest level. Employees do not interfere; the company gives everything that is needed to make work a home. Each person is a part of a huge mechanism, each in its place and performs its work. But this is not a dull routine work, but a creative process. The employee feels right, feels that he is appreciated, because Google gives him a huge number of benefits, a smart workplace, which you can only dream of.

Google does not stop at anything and opens up new horizons, creates more and more amazing products and strives for what seems impossible.

In the company only professionals are gathered, the best programmers from all over the world will consider it an honor to work in this company. Google appreciates its employees, everyone gets what they deserve. From ordinary programmer to the leading

specialist can grow up everyone, you need only aspiration. Google does not limit its employees in anything: neither in funds, nor in technologies, nor in convenience.

But Google is not a magical world, where everything is perfect. There are also a few weak points:

- Google is not represented in social. networks
- Strong dependence on advertising
- Relative low accuracy of performing search queries (50-60%)

After the analysis of the internal environment, it is possible to identify the strengths and weaknesses of the enterprise (Table 2.1).

Table 2.1. Analysis of strengths and weaknesses of the organization

Components of the internal environment	Efficiency of the components of the internal environment					Importance		
	Very strong	Strong	Neutral	Weak	Very weak	High	Medium	Low
Structure:								
A clear hierarchy	+					+		
Resources:								
Large staff		+					+	
Huge financial opportunities	+					+		
Organization and staff:								
Highly qualified staff	+					+		
Excellent staff motivation	+							+
Career		+						+
Stable quality control		+					+	
Weak sides:								
Google is not represented in social. Networks			+				+	
Strong dependence on advertising	+					+		
Relative low accuracy of performing search queries (50-60%)		+					+	

Source: Own made table based on analysis above

If you combine the data of Table 2.1, you can identify the most significant strengths and weaknesses of the enterprise (Table 2.2).

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Table 2.2. Strengths and weaknesses of the organization

№	Strengths	Weaknesses
1	Clear hierarchy	Google is not represented in the social networks
2	Large staff	Strong dependence on advertising
3	Huge financial opportunities	Relative low accuracy of performance of search inquiries (50-60%)
4	Highly qualified staff	
5	Excellent staff motivation	
6	Career	

Source: Own made table

4.2 SWOT analysis

On the basis of the analysis of the internal and external environment of Google Inc. following list of opportunities and threats is received. The strengths and weaknesses of the company are also shown. (Table 3.1)

Table 3.1 Strengths/Weaknesses/Opportunities/Threats

Strengths	Weaknesses
Clear hierarchy Large staff Huge financial resources Highly qualified personnel Excellent staff motivation Career growth	Google is not represented in social. networks Strong dependence on advertising Relative low accuracy of performing search queries (50-60%)
Opportunities	Threats
Increase Internet Users in the World Develop New Markets Improve Technology	Restriction of activities due to problems with the law Threatened to get stuck in permanent courts Combining competitors

Source: Own made table based on analysis of internal and external environment

The main threats of the company are unification of competitors and possible problems with the law, as well as the threat of getting stuck in court proceedings. The main opportunity is the development of new markets. The main strengths are unlimited funds and high qualification of the staff.

The conclusions that can be drawn from the SWOT matrix are presented in Table 4.1.Table 4. 1. SWOT Analysis Matrix

"Strength and Opportunity"	"Strength and Threats"
• Huge financial opportunities allow us to continuously improve our technologies and develop new markets •The availability of highly qualified specialists in all fields makes it possible to master new markets without any problems	• Combining competitors can create a more attractive and powerful corporation, as a result of which some highly skilled specialists can be retired. • A large number of information channels can add new problems to the law.
"Weakness and Opportunity"	"Weakness and threats"
• Not Google's representation in the social networks makes it possible, by fixing it, to discover a huge new market and get a huge number of users. • Exact search accuracy can be compensated in the future, because technologies are constantly being improved	• Excellent accuracy of search queries competitors can surpass and thereby entice users to their side • Competitions can take advantage of the fact that Google is not represented in the social networks and the first to occupy this market.

Source: Own made table

When carrying out the SWOT-analysis, it is recommended to pay special attention to the "Strength-Opportunity" square and the "Weakness-Threats" square. Based on the data of the first square, strategies that enable taking advantage of opportunities are formulated. Based on the second data strategies that minimize weaknesses and help to avoid threats are formulated.

In general, Google does not have many problems, because the company owns the world's first (77.04%) search engine Google, which occupies a huge market share (62.04%), but there is always something to develop.

4.3 Fundamental analysis

Financial statement

Income statement

On the charts below the activity of the last two years of the company is shown. Also there is mentioned how company worked over the last few years, its profitability, operating efficiency, debts and capital. The found information can create the base for new ideas of expectations for the future.

Figure 1: Income statement of NASDAQ:GOOG (2013-2017)
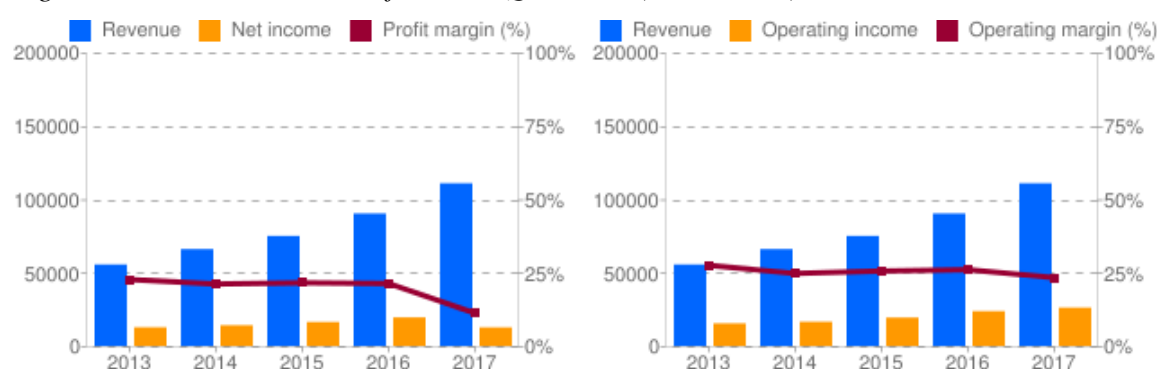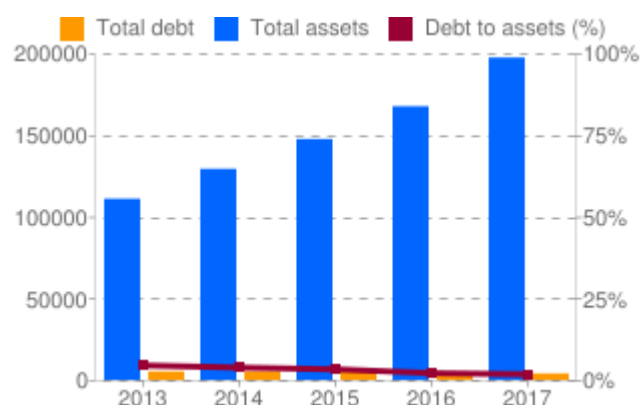

Source: Finance.yahoo.com (2018).

Figure 2: Income statement of NASDAQ: GOOG (2014-2017)

In Millions of USD (except for per share items)	12 months ending 2017-12-31	12 months ending 2016-12-31	12 months ending 2015-12-31	12 months ending 2014-12-31
Revenue	110,855.00	90,272.00	74,989.00	66,001.00
Other Revenue, Total	-	-	-	-
Total Revenue	110,855.00	90,272.00	74,989.00	66,001.00
Cost of Revenue, Total	45,583.00	35,138.00	28,164.00	25,313.00
Gross Profit	65,272.00	55,134.00	46,825.00	40,688.00
Selling/General/Admin. Expenses, Total	19,765.00	17,470.00	15,183.00	13,982.00
Research & Development	16,625.00	13,948.00	12,282.00	9,832.00
Depreciation/Amortization	-	-	-	-
Interest Expense(Income) - Net Operating	-	-	-	-
Unusual Expense (Income)	2,736.00	-	-	378.00
Other Operating Expenses, Total	-	-	-	-
Total Operating Expense	84,709.00	66,556.00	55,629.00	49,505.00
Operating Income	26,146.00	23,716.00	19,360.00	16,496.00
Interest Income(Expense), Net Non-Operating	-	-	-	-
Gain (Loss) on Sale of Assets	-	-	0.00	0.00
Other, Net	283.00	344.00	256.00	178.00
Income Before Tax	27,193.00	24,150.00	19,651.00	17,259.00
Income After Tax	22,486.00	19,478.00	16,348.00	13,620.00
Minority Interest	-	-	-	-
Equity In Affiliates	-	-	-	-
Net Income Before Extra. Items	22,486.00	19,478.00	16,348.00	13,620.00
Accounting Change	-	-	-	-
Discontinued Operations	-	-	-	-
Extraordinary Item	-	-	-	-
Net Income	12,662.00	19,478.00	16,348.00	14,136.00
Preferred Dividends	-	-	-	-

Source: Finance.google.com (2018).

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Balance sheet

Figure 3: Balance sheet of NASDAQ: GOOG (2013-2017)

Source: Finance.google.com (2018)

Balance sheet is a table in which static objects of accounting with their numerical values are grouped. In accordance with the consideration of accounting objects from two points of view - property and sources of financing of this property - the balance consists of two parts: an asset where the property is shown by type and group, and the liability, where the equity and liabilities of the organization are shown.

Figure 4: Balance sheet of NASDAQ: GOOG (2014-2017)

In Millions of USD (except for per share items)	As of 2017-12-31	As of 2016-12-31	As of 2015-12-31	As of 2014-12-31
Cash & Equivalents	3,557.00	5,840.00	9,169.00	8,484.00
Short Term Investments	91,156.00	73,415.00	56,517.00	46,048.00
Cash and Short Term Investments	101,871.00	86,333.00	73,066.00	64,395.00
Accounts Receivable - Trade, Net	18,336.00	14,137.00	11,556.00	9,383.00
Receivables - Other	-	-	-	-
Total Receivables, Net	18,705.00	14,232.00	13,909.00	10,849.00
Total Inventory	749.00	268.00	-	-
Prepaid Expenses	2,903.00	3,979.00	2,511.00	2,560.00
Other Current Assets, Total	80.00	596.00	628.00	852.00
Total Current Assets	124,308.00	105,408.00	90,114.00	78,656.00
Property/Plant/Equipment, Total - Gross	59,647.00	47,527.00	40,146.00	32,746.00
Accumulated Depreciation, Total	-17,264.00	-13,293.00	-11,130.00	-8,863.00
Goodwill, Net	16,747.00	16,468.00	15,869.00	15,599.00
Intangibles, Net	2,692.00	3,307.00	3,847.00	4,607.00
Long Term Investments	7,813.00	5,878.00	5,183.00	3,079.00
Other Long Term Assets, Total	3,352.00	2,202.00	3,432.00	3,363.00
Total Assets	197,295.00	167,497.00	147,461.00	129,187.00
Accounts Payable	3,137.00	2,041.00	1,931.00	1,715.00
Accrued Expenses	14,406.00	10,107.00	8,293.00	7,473.00
Notes Payable/Short Term Debt	0.00	0.00	2,000.00	2,000.00
Current Port. of LT Debt/Capital Leases	0.00	0.00	1,225.00	9.00
Other Current liabilities, Total	6,640.00	4,608.00	5,861.00	5,582.00
Total Current Liabilities	24,183.00	16,756.00	19,310.00	16,779.00
Long Term Debt	3,943.00	3,935.00	1,995.00	2,992.00
Capital Lease Obligations	26.00	-	0.00	236.00
Total Long Term Debt	3,969.00	3,935.00	1,995.00	3,228.00
Total Debt	3,969.00	3,935.00	5,220.00	5,237.00
Deferred Income Tax	430.00	226.00	189.00	758.00
Minority Interest	-	-	-	-
Other Liabilities, Total	16,211.00	7,544.00	5,636.00	4,562.00
Total Liabilities	44,793.00	28,461.00	27,130.00	25,327.00
Redeemable Preferred Stock, Total	-	-	-	-
Preferred Stock - Non Redeemable, Net	0.00	0.00	-	-
Common Stock, Total	0.69	0.69	0.69	0.68
Additional Paid-In Capital	40,246.31	36,306.31	32,981.31	28,766.32
Retained Earnings (Accumulated Deficit)	113,247.00	105,131.00	89,223.00	75,066.00
Treasury Stock - Common	-	-	-	-
Other Equity, Total	-1,225.00	-2,223.00	-1,788.00	-394.00
Total Equity	152,502.00	139,036.00	120,331.00	103,860.00
Total Liabilities & Shareholders' Equity	197,295.00	167,497.00	147,461.00	129,187.00
Shares Outs - Common Stock Primary Issue	-	-	-	-
Total Common Shares Outstanding	694.78	691.29	687.35	680.17

Source: *Finance.google.com* (2018)

On the base of Income statement and Balance sheet which are given, Return on Equity, Return on Assets, Current Ratio and Gross Profit Margin can be calculated. (Further in the thesis)

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Operating Income in Millions of USD (Except for per Share Items)

"Operating income is a measure of profitability that tells investors how much revenue will eventually become profit for a company." (Investopedia.com, 2003)

- 2014 = 16,496.00
- 2015 = 19,360.00
- 2016 = 23,716.00
- 2017 = 26,146.00

As it known, if a company has increase in operating income, that means that this company reduced costs, what is seen here in the case of Google Inc. The operating income of Google Inc.has increased by $9,650.00 million (26,146.00 – 16,496.00) from 2014 to 2017. That is 58.5%, which is a great result of the company in the global market.

Net Income in Millions of USD (Except for per Share Items)

Net income (net earnings, but seldom profit or net profit) is the final profit after all expenses are deducted from sales revenue. It is shown in the bottom line of Income statement. (Ing. Marta Stárová)

Net income for each year:

- 2014 = 14,136.00
- 2015 = 16,348.00
- 2016 = 19,478.00
- 2017 = 12,662.00

From the year 2014 to 2016 profit of the company increased by 5,342.00 (19,478.00 - 14,136.00), which is 37.79%, but than in 2017 profit decreased by 6,816.00. That is fall by 10.43% since 2014.

The shown net income for the first three years is positive, but the last year has a decline. (Figure1)

ROE (Return on Equity)

ROE = Net Income / Total Equity

„Return on equity is a ratio that provides investors with insight into how efficiently a company (or more specifically, its management team) is managing the equity that shareholders have contributed to the company." (Investopedia.com, 2003)

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This is the most important financial indicator of the return for any investor, the owner of the business, showing how effectively the capital invested in the business was used. Unlike the similar indicator "return on assets", this indicator characterizes the effectiveness of using not all the capital (or assets) of the organization, but only that part of it that belongs to the owners of the enterprise.

- 2014 = 14,136.00 / 103,860.00 = 13.61%
- 2015 = 16,348.00 / 120,331.00 = 13.58%
- 2016 = 19,478.00 / 139,036.00 = 14.01%
- 2017 = 12,662.00 /152,502.00 = 8.3%

Over the last four years Return on equity has decreased. The profitability fell down from 13.61% to 8.3% (5.31%). This situation represents that the growth rate of capital stock was faster than the earnings growth, which means that the shareholders' value increases.

Return on assets (ROA)

ROA = Net Income / Total Assets

ROA is a financial ratio characterizing the return on the use of all the assets of the organization. The coefficient shows the ability to generate profit without taking into account the structures of its capital (financial leverage), the quality of asset management. Unlike the indicator "return on equity", this indicator takes into account all the assets of the organization, and not only its own funds. Therefore, it is less interesting for investors.

- 2014 = 14,136.00 / 129,187.00 = 10.94%
- 2015 = 16,348.00 / 147,461.00 = 11.09%
- 2016 = 19,478.00 / 167,497.00 = 11.62%
- 2017 = 12,662.00 / 197,295.00 = 6.41%

From 2014 to 2016 ROA was increasing (net income was increasing as well), but after that in 2017 it decreased to 6.41%. That is drop off by 4.53% since 2014. This is the result of a slowdown of the net income of the company in 2017.

Total Assets in Millions of USD

- 2014 = 129,187.00
- 2015 = 147,461.00
- 2016 = 167,497.00
- 2017 = 197,295.00

Growth of total assets was observed in the last four years. It has increased by $68,108.00 million (197,295.00 – 129,187.00).

Total Liabilities in Millions of USD
- 2014 = 25,327.00
- 2015 = 27,130.00
- 2016 = 28,461.00
- 2017 = 44,793.00

Total liabilities have increased by $19,466.00 million (44,793.00 – 25,327.00), when the total assets grew up by $68,108.00 million. Shareholders value increased as well, because total assets are more than total liabilities.

Current assets in Millions of USD

Current assets are defined as short-term assets that are held for resale, conversion into cash or are cash itself. There are three main types of current assets: stock-in-trade, trade debtors and cash. A temporary investment of funds in the shares of, say, a quoted company or government securities should also be classified as a current asset. (Marriott, J.R. Edwards, & Mellett, 2002)
- 2014 = 78,656.00
- 2015 = 90,114.00
- 2016 = 105,408.00
- 2017 = 124,308.00

The increase in the share of current assets helps to mobilize assets and accelerate the turnover of the company's funds.

Current Ratio

Current Ratio = Current Assets / Current Liabilities

The current liquidity ratio shows the ability to repay current (short-term) liabilities at the expense of only current assets. The solvency of the enterprise is better if the value of the coefficient is higher. This indicator takes into account that not all assets can be sold urgently.
- 2014 = 78,656.00 / 16,779.00 = 4.68
- 2015 = 90,114.00 / 19,310.00 = 4.66

- 2016 = 105,408.00 / 16,756.00 = 6.29
- 2017 = 124,308.00 / 24,183.00 = 5.14

In the last four years current ratio grew by 0.46. The normal value is the coefficient of 1.5 to 2.5. A value below 1 indicates a high financial risk, when the company is unable to sustain a steady payment of current accounts.

Total Common Shares Outstanding

- 2014 = 680.17
- 2015 = 687.35
- 2016 = 691.29
- 2017 = 694.78

Over the past four years total common shares outstanding raised by 14.61 million (694.78 – 680.17), which is 2.1%. That is a good result of the company growth and the increase of demand for shares of the company.

Gross Profit Margin

GPM = Gross profit / Sales Revenue

Gross profit margin is one of the intermediate types of profit shown in the statement of financial results. Consequently, it is determined according to the accounting records calculated by dividing gross profit by revenues.

- 2014 = 40,688.00 / 66,001.00 = 61.65%
- 2015 = 46,825.00 / 74,989.00 = 62.44%
- 2016 = 55,134.00 / 90,272.00 = 61.07%
- 2017 = 65,272.00 / 110,855.00 = 58.88%

The ratio fell down by 2.77% (61.65 – 58.88) from 2014 to 2017.

Total Revenue growth in millions of USD

- 2014 = 66,001.00
- 2015 = 74,989.00
- 2016 = 90,272.00
- 2017 = 110,855.00

There is the growth observed in revenues by $44,854.00 million (110,855.00 – 66,001.00) over the past four years. That is 67.96% growth.

Total assets growth in millions of USD

- 2014 = 129,187.00

- 2015 = 147,461.00

- 2016 = 167,497.00

- 2017 = 197,295.00

In the last four years total assets grew up by $68,108.00 million (197,295.00 – 129,187.00), which is 52.72% of growth.

To sum up all the data what was given above it can be said that the company Google Inc. was in financial risk in the period 2014 – 2017. Net Income decreased by 10.43%, ROE, ROA and GPM also decreased, while Total assets and revenues increased. In spite of the drop off in ROE, the total number of shareholders is increasing, because the stocks of it are still profitable to buy, what is good for the company.

Figure 5: Current situation at NASDAQ: GOOG (Alphabet Inc. Class C)

Source: Finance.google.com (2018).

On the figure above it is shown that the shares of GOOG are trading for $1.078.

4.4   Technical analysis

Technical analysis is a trading tool which is used to assess securities and attempt to anticipate their price movement in the future. With the help of technical analysis it is possible to measure strengths, weaknesses and future forecast of the certain stocks by using charts of price movement and multifarious analytical tools. (Tradingview.com, 2018)

4.4.1 Simple Moving Average (SMA)

A simple moving average is the simplest type among moving averages. Initially, a simple moving average is calculated as follows: the sum of the closing prices is taken as the "X" time periods   and   is   divided   by   the   number   X.   (Investopedia.com.   2018   [2]) On the base of data of GOOG shares what is given below it is possible to calculate SMA of the given period (6. 3. 2017 – 6. 3. 2018) taking for 5 months using the formula:

$$SMA = \frac{\sum_{i=1}^{n} Pi}{n}$$

Figure 6: Historical data of GOOG for the period 6. 3. 2017 – 6. 3. 2018

1,095.34 +4.41 (+0.40%)
As of 12:01PM EST. Market open.

Time Period: Mar 06, 2017 - Mar 06, 2018 ⌄   Show: Historical Prices ⌄   Frequency: Monthly ⌄   **Apply**

Currency in USD   ⬇ Download Data

Date	Open	High	Low	Close*	Adj Close**	Volume
Mar 01, 2018	1,107.87	1,110.12	1,048.11	1,090.93	1,090.93	5,924,600
Feb 01, 2018	1,162.61	1,174.00	992.56	1,104.73	1,104.73	42,384,100
Jan 01, 2018	1,048.34	1,186.89	1,045.23	1,169.94	1,169.94	28,738,400
Dec 01, 2017	1,015.80	1,078.49	988.28	1,046.40	1,046.40	28,163,700
Oct 31, 2017	1,017.21	1,062.38	1,013.01	1,021.41	1,021.41	24,265,500
Sep 30, 2017	959.98	1,048.39	947.84	1,016.64	1,016.64	31,779,700
Aug 31, 2017	941.13	959.79	909.70	959.11	959.11	28,053,800
Jul 31, 2017	932.38	941.98	903.40	939.33	939.33	27,958,000
Jun 30, 2017	912.18	986.20	894.79	930.50	930.50	36,679,200
May 31, 2017	968.95	988.25	908.31	908.73	908.73	43,577,200
Apr 30, 2017	901.94	979.27	901.45	964.86	964.86	32,180,100
Mar 31, 2017	829.22	916.85	817.02	905.96	905.96	25,161,900
Mar 01, 2017	-	-	-	-	-	-

Source: Finance.yahoo.com (2018)

Figure 7: Calculated SMA based on the historical data 6. 3. 2017 – 6. 3. 2018 for the 5 months

Date		Open	High	Low	Close*	Adj Close**	Volume	SMA
Mar 06, 2018		1,099.22	1,099.78	1,089.78	1,094.66	1094,66	536,265	1101,332
Mar 01, 2018		1,107.87	1,110.12	1,048.11	1,090.93	1090,93	5,924,600	1086,682
Feb 01, 2018		1,162.61	1,174.00	992.56	1,104.73	1104,73	42,384,100	1071,824
Jan 01, 2018		1,048.34	1,186.89	1,045.23	1,169.94	1169,94	28,738,400	1042,7
Dec 01, 2017		1,015.80	1,078.49	988.28	1,046.40	1046,4	28,163,700	996,578
Oct 31, 2017		1,017.21	1,062.38	1,013.01	1,021.41	1021,41	24,265,500	973,398
Sep 30, 2017		959.98	1,048.39	947.84	1,016.64	1016,64	31,779,700	950,862
Aug 31, 2017		941.13	959.79	909.70	959.11	959,11	28,053,800	940,506
Jul 31, 2017		932.38	941.98	903.40	939.33	939,33	27,958,000	929,876
Jun 30, 2017		912.18	986.20	894.79	930.50	930,5	36,679,200	-
May 31, 2017		968.95	988.25	908.31	908.73	908,73	43,577,200	-
Apr 30, 2017		901.94	979.27	901.45	964.86	964,86	32,180,100	-
Mar 31, 2017		829.22	916.85	817.02	905.96	905,96	25,161,900	-
Mar 01, 2017		-	-	-	-	-	-	-

Source: own calculation, database from Finance.yahoo.com (2018)

4.4.1 Exponential Moving Average (EMA)

Exponential moving average is one of the moving averages, which is really similar to the Simple Moving Average, but it gives more weight to the latest data. Some analysts call it weighted moving average. EMA reacts way faster to recent price changes than SMA, what is undoubtedly the advantage of this type of moving average.

Exponential Moving Average is used to create indicators like MACD (the explanation of this type of average will be given further in this part of thesis). The 12- and 26-day are the most popular short-term averages. (Investopedia.com, 2018 [3])

EMA can be calculated by using following formula:

$EMA_t = \alpha \times P_t + (1 - \alpha) \times EMA_{t-1}$

On the figure below EMA Analysis is given for the GOOG for the different time periods: 5 and 13 days (short-term), 20 days (intermediate term), 50 days (long term).

Figure 8: EMA Analysis

EMA Analysis

Last Trade	5 day EMA	13 day EMA	20 day EMA	50 day EMA
1094.6	1092.90	1096.05	1097.15	1089.83
5 day EMA		5 EMA Below 13 EMA	5 EAM Below 20 EMA	5 EMA Above 50 EMA
13 day EMA			13 EMA Below 20 EMA	13 EMA Above 50 EMA
20 day EMA				20 EMA Above 50 EMA

Source: Stockta.com (2018)

Then this analysis can be shown in the graph which is given below.

Figure 9: EMA Analysis in the graph

Source: Stockta.com (2018)

As can be seen on the graph, exponential smoothing can smooth out the most abrupt price deviations and establish a direction for the trend market.

4.4.2 Moving Average Convergence Divergence (MACD)

This is an indeterminate indicator. Some traders consider it an oscillator, others an a complex average, because in fact it is more effective for visual (graphical) analysis by an indicator. When you build it, you can use any type of moving average (simple, exponential, etc.). Among market participants, it is widely believed that the indicator can significantly reduce the shortcomings of the sliding ones.

Calculation of the indicator is carried out as follows: from the moving average with a smaller period, the moving average with a long period is subtracted. The result is sometimes smoothed using the exponential moving average (EMA).

MACD indicator uses two different types of EMA: slow, where the period is -26 and the fast one, where the period is -12.

Figure 10: MACD indicator of GOOG (2017 – 2018)

Source: Marketmemory.com (2018)

The maximum and minimum values of the signal line indicate the possible occurrence of a signal to buy or sell on the indicator line. With respect to the main line, when it is above the zero bands, this indicates an uptrend, when lower - downward. Thus, the intersection of the indicator of this band from the bottom to the top signals the need to purchase. If the MACD crosses the zero line from the top down, this is a sell signal. In this case, the strength of the signal is determined by the previous movements of the MACD. The longer the movement (growth or decrease), the stronger the signal is.

4.4.3 Bollinger bands

"A Bollinger Band®, developed by famous technical trader John Bollinger, is plotted two standard deviations away from a simple moving average."(Investopedia.com, 2018)

Graphically, Bollinger Bands are two lines that limit the dynamics of prices from above and from below, respectively. These are original lines of support and resistance, which most of the time are at levels remote from the price.

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Bollinger bands are similar to envelopes of moving averages. The difference between them is in the fact that the boundaries of envelopes are located above and below the moving average curve at a fixed distance expressed in percent, while the boundaries of the Bollinger bands are built at distances equal to a certain number of standard deviations. Since the magnitude of the standard deviation depends on volatility, the bands themselves adjust their width: it increases when the market is unstable, and decreases in more stable periods.

Bollinger bands are formed from three lines. The average line is the usual moving average. The top line is the same middle line, shifted upward by a certain number of standard deviations, e.g. by two. The bottom line is the middle line, shifted down by the same number of standard deviations.

An uptrend can happen in case of oversold of stocks in the market, when prices were low, but then the prices go up.

Trend down can happen in case of overbought, when the prices rose very fast and then there is a forecast of price reduction.

Figure 11: Bollinger Bonds of GOOG

Source: Csimarket.com (2018)

As it can be seen on the figure Bollinger Bonds of GOOG what is given above, the price of GOOG stock is above the midline, which may indicate an uptrend.

5. Conclusion

To sum up all the provided information by the author with the help of literature and online sources, it can be said that Google Inc. has a great history with ups and downs as every company. There are no perfect corporations without any disadvantages, this also applies to Google.

Observation of this thesis shows the information about how Google works, its algorithms, indexing and promotion of cites on Google. Also, the advantages and disadvantages were found out and explained to a reviewer.

Doing SWOT analysis, it was discovered that Google Inc. has more strengths and opportunities, than threats and weaknesses, what is undoubtedly a big plus of the company.

There are three types of stocks of Google Inc. on NASDAQ (National Association of Securities Dealers Automated Quotations system): class A, class B and class C. Based on fundamental and technical analysis it can be said that GOOG shares are beneficial on long-term basis.

Conducted work on analyses of Google Inc. shows how big the impact of the company on the global market is.

Google Inc. is the great company with the great future and opportunities.

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