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## QUALIFICATION PAPER

on the topic " INTERNATIONAL INTERNET-TRADING STRATEGIES IN  
THE CRYPTOCURRENCY MARKET"  
Specialty 292 "International Economic Relations"

Student 4 Course \_\_\_\_\_  
group ME-71an

Selin Artur

It is submitted for the Bachelor's degree requirements fulfillment.

Qualifying Bachelor's paper contains the results of own research. The use of the ideas, results and texts of other authors has a link to the corresponding source

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## ABSTRACT

on bachelor's degree qualification paper on the topic  
« INTERNATIONAL INTERNET-TRADING STRATEGIES IN THE  
CRYPTOCURRENCY MARKET »  
student Selin Artur Sergiyovich

The main content of the bachelor's degree qualification paper is presented on 50 pages, including references consisted of 41 used sources, which is placed on 4 pages. The paper contains 20 figures.

Keywords: ESSENCE OF TRADING, INFLUENCE OF CRYPTOCURRENCIES, BLOCKCHAIN, RISK MANAGEMENT, TECHNICAL ANALYSIS, FUNDAMENTAL ANALYSIS, JAPANESE CANDLES, SUPPORT LEVEL, RESISTANCE LEVEL, BITCOIN, ALTCOINS, INTERNET-TRADING, INDICATORS, OSCILLATORS, INTERNATIONAL STRATEGIES.

The purpose of the bachelor's qualification work is to study the basic concepts in internet trading and their structuring for the successful application of theoretical and practical skills in international strategies for Internet trading in the cryptocurrency market.

The object of the research is the internet-trading.

The subject of the research is the theoretical and practical foundations of internet-trading in the cryptocurrency market.

In the process of research, depending on the goals and objectives, we used the current methods of studying the cryptocurrency market, including the systematization and structuring of theoretical and practical skills. The information base of the work is cryptocurrency exchanges, reports of foreign authors, analytical reviews, books and scientific articles.

Based on the results of the study, the following conclusions were formulated:

1. The influence of cryptocurrencies on the world economy is getting stronger every day. More and more traders on cryptocurrency exchanges appear in the world.

2. The main changes in the cryptocurrency market in the future will affect the transformation of trading mechanisms. Cryptocurrencies are overtaking third world countries in capitalization.

3. The amount of information for studying technical and fundamental analysis is colossal, there is a lot of unnecessary information.

4. International internet-trading strategies are profitable, as practice has shown, with due study.

The results obtained can be used in the process of developing an internet-trading strategy in cryptocurrency markets, as well as Forex.

Results of approbation of the basic provisions of the qualification Bachelor work was considered at:

1) II International scientific-practical online conference "International Economic Relations and Sustainable Development", which took place on May 21, 2021.

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Chapter 1 THEORETICAL FOUNDATIONS OF INTERNET-TRADING IN THE CRYPTOCURRENCY MARKET, to 30.04.2021

Chapter 1 deals with basic concepts of internet-trading, features of cryptocurrency market, impact of the cryptocurrency market on the global economy and risk management in internet-trading

Chapter 2 TECHNICAL AND FUNDAMENTAL ANALYSIS OF THE CRYPTOCURRENCY MARKET

Chapter 2 deals with basic technical and fundamental analysis that need to know to work with international internet-trading strategies in the cryptocurrency market

Chapter 3 EFFECTIVE INTERNATIONAL INTERNET-TRADING STRATEGIES IN THE CRYPTOCURRENCY MARKET

Chapter 3 deal with the best international internet-trading strategies in the cryptocurrency , which have been tested by practical application

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## INTRODUCTION

Now, internet trading is gaining wider volumes, specially, cryptocurrency trading. Every day more and more people strive to introduce them to the topic of stock trading, and to learn something in order to further earn on this. Why are so many people today carried away by trading on the stock exchange, while actually successful and wealthy stock managers or crypto-people are only a few traders? It's all about the amount of information that you need to pass through yourself. Moreover, when choosing strategies, you should use all the acquired knowledge of technical and fundamental analysis.

Using or only building a trading strategy for cryptocurrencies, you need to understand that this is the most volatile market. This work contains all the theoretical foundations that a successful trader should know in order to understand and develop a trading algorithm.

To correctly determine the patterns, a trader needs to have an understanding of the market, experience in trading, know the methods of technical and fundamental analysis, receiving information from trusted sources. But the main thing is that the market must be relatively stable.

The purpose of the study is to find out which indicators are the most important in making trading decisions, and how to apply them, how to use theoretical knowledge of technical analysis in practice, and what a successful trader should be guided by, adhering to risk management, which international Internet trading strategies are the most effective on the market cryptocurrencies.



# 1. THEORETICAL FOUNDATIONS OF INTERNET-TRADING IN THE CRYPTOCURRENCY MARKET

Online trading first gained its fame back in the 90s, because it allows you to speed up the process of accepting applications from private investors for transactions with securities and assets. In the end, this led to the creation of a potentially competitive environment and new technological standards, a massive influx of new investors into the market, as well as the emergence of financial instruments and trading platforms. Concepts and types of internet-trading.

## 1.1 Basic concepts of internet-trading

Currency pair - the ratio of two currencies, which shows how many monetary units of one currency, is worth a unit of another currency. For example, in the USD / UAH pair, you buy the USD currency, paying for it UAH. The first currency in a pair is called the base currency, and the second is called the quoted currency. Thus, the currency pair shows how much the quoted currency is needed to buy one unit of the base currency [1].

Bid, Ask and Spread - bid is the price that the buyer of the asset is willing to pay. Ask - the price at which the seller is ready to sell the asset. Spread - the difference between the ask and bid prices [2]. In simple words, in any market, a buyer calls the price at which he is willing to buy something (bid), and the seller - for which he is ready to sell something (ask). It looks like the situation in the ordinary grocery market, when any a bargainer calls a lower price, but the seller defends a higher one. Moreover, both strive maximize your benefits [3].

Order book - the order book has the form of a table, where in real time, orders to buy and sell an asset are displayed To make an exchange transaction, a trader places an order indicating the parameters of a future transaction: purchase or sale, the required volume of the asset and the desired price. Deal executed when the

exchange system detects a counter an order that fully satisfies those specified in the order requirements. If for some time there is no corresponding counter-application, the order is entered into the "order book". Displaying in the exchange glass, the order begins to wait for a counter order [4].

Long and short positions - long position ('long') - buying an asset in anticipation of an increase in its price. A 'Short' is when a trader sells an asset expecting a decline in its rate.

Types of order. An order (exchange order) is a request created by the client for the exchange to carry out an operation for the purchase and sale of cryptocurrency under certain conditions.

Market Order - executed immediately after entering the exchange, at the best current price, if there is a corresponding reverse limit order for it [5].

Limit Order is an order to buy or sell a certain amount of an asset at a specified price. For example, a trader bought 100 specific tokens at \$ 20 apiece. He expects the market to continue to rally and the coin to hit the \$ 25 level. Since the trader cannot (or does not want) to constantly monitor his positions, he decides to take profit at \$ 24.50. To do this, he places a limit order to sell 100 of these tokens. If their rate reaches \$ 24.50, then the limit order will be executed and the trader will make a profit. Excluding trading commissions of the exchange, it will be  $100 * (24.50 - 20) = \$ 450$  [6].

Buy Limit is set at a price lower than the current market price. A trader uses this order if he hopes that the price will first fall, and then, after rebounding from the support level, it will begin to grow.

Sell Limit - an order to sell at a specified price. Sell Limit is set at a price higher than the current market price. Thus, the trader uses this order when he hopes that the price will first rise, but then, having reached a given level, will reverse and begin to fall [9].

Stop Order is an order to buy or sell a certain amount of cryptocurrency when its price reaches a certain level [9].

Buy Stop is an order to buy at a specified price or higher. A trader uses this order when he hopes that a rising price, having overcome a given resistance level, will continue to grow. Buy Stop is set at a price higher than the current market price [8].

Sell Stop - an order to sell an asset at a specified price or below. A trader uses this order when he hopes that the price will continue falling after reaching a predetermined level during its downward movement. Sell Stop is set at a price lower than the current market price [7].

Stop Limit is a combination of two types of orders: stop and limit. It contains two prices: limit and stop, they can be the same or different. If the market price has reached the stop price, a limit order is placed. If regular stop orders are executed at market prices, then a suitable price can be placed in the Stop-limit. A stop order is used both to open a position and to exit it. In the latter case, the stop order is used as a protective order to limit Stop Loss losses [7][9].

There are several types of internet-trading. Scalping is literally “scalping” every price move. In this type of trading, you need a very good reaction and quick trading decisions. The number of deals per minute can be from 5-10 open positions, you open a deal, there is a little profit - you close it. This is a rather nervous and dangerous type of trading, but still one of the most profitable [10].

Nowadays scalping has become mainly the lot of trading robots. Which is understandable, in principle. This trading style is the most profitable for use in algorithmic trading strategies, due to its demand for the speed of execution of trading operations, but it still remains quite popular among traders [10].

Day trading (timeframe 1 hour - 1 day). At the end of the trading day, all trades are closed and there are pros compared to scalping [11]:

- Less risk and emotional stress, trading several hours a day;
- Big leverage or margin;
- There is no strong dependence on fundamental analysis;
- The impact of bad news between trades is minimal.

Swing trading (medium-term, from 1 week to months). Quite a popular type of trading for people who do not like to sit at the computer for a long time in search of an entry point or the slightest fluctuation in the chart. The transaction is entered about two to three times a month. Here, first, you need to develop patience, and eventually it will bear fruit [12].

Positional / Long-term (from a month or more). The position is held for months, ideally while the trend continues. That is, all intermediate rollbacks and corrections are swallowed. Banks, investment funds and traders with large capital use this type of trading. The entry into the deal can be 1 time in half a year or a year, but a very large amount [13].

In addition, a separate item is arbitration, its essence is buying a currency at one rate on one platform, and then selling it at a higher price on another trading platform using pricing mismatches. This type of online trading should be carried out with large volumes, otherwise the profit will be minimal [13].

## **1.2 Features of cryptocurrency market**

The main feature of the cryptocurrency market is that all transactions, regardless of the quantity, cannot be tracked, the so-called Blockchain, a large ledger, where everyone can make notes and which everyone can read, scattered across a huge number of computers around the world [15].

Blockchain is a database organization technology that relies on the internet and fully exploits all its advantages, including an open protocol and the ability to calculate and encrypt. This distributed database of transactions can be compared to a ledger, in which each new transaction is recorded next to the previous ones without the ability to change or destroy the previous records. This book is active, chronologically organized, distributed, verifiable and protected from falsification by

a system of trust distribution among the system participants, thus the Blockchain [15].

- allows you to automate transactions without involving a third party;
- is a system of distributed consensus and trust;
- is a validation infrastructure and notarization.

Building and running a Blockchain requires a registry (a string of blocks like bitcoin), encryption with keys to secure the transaction, an algorithm (based on consensus) for verifying transactions, and a peer-to-peer network to make it work [15]. Take the bitcoin blockchain as an example:

Stage 1: The two participants agree on the terms of the transaction (transfer of money, assets, financial documents, etc.);

Stage 2: The journal is "scanned" by members of the network. By analyzing its timeline, members of the network verify that the seller actually owns the declared assets or funds that he is selling;

Stage 3: If everything is ok, the transaction is confirmed and added to the last block in the chain;

Stage 4: The magazine is distributed to all members of the network. Its prevalence ensures its security. To falsify a transaction, it would be necessary to change the logs of all members (nodes) of the network.

Blockchain is a completely new, decentralized, secure and transparent solution that allows you to store information, exchange it, determine its authenticity and verify it, and the cost of all these actions is quite low. Everything is done by ourselves the user, therefore, the transaction does not require the participation of a third authorized person. Exactly in the absence of a third-party trustee and is the main innovation and originality Blockchain [15].

Round-the-clock transactions. The cryptocurrency market works 24/7 in contrast to the stock market, a relatively low barrier to entry into a transaction. So all can buy cryptocurrency from anywhere and at any time with only access to the Internet [16].

Lack of correlation with other assets. One of the differences between cryptocurrencies is that they are practically independent of the traditional assets of the financial market, moreover, during periods of crises, there is often an activation of buyers in the digital currency market. Thus, more and more investors see cryptocurrencies as one of the best places for burying personal capital during periods of economic turmoil [16].

Volatility. The volatility of cryptocurrencies is very high in comparison with the same fiat assets. For example, the same USD / EUR pair can have volatility of about 3-5% per month, and the ETH / BTC pair can reach up to 5-10% per day, which in turn attracts many traders enter the cryptocurrency market, as it is possible to make transactions without leverage, with less risk, and good margins [16].

### **1.3 Impact of the cryptocurrency market on the global economy**

Initially, the cryptocurrency was used only by a limited circle of people who stood at the origins of its foundation. However, in a few years, the cryptocurrency has swept the whole world and formed a separate market. So far, today, the use of cryptocurrencies in the consumer sense in practical life is extremely limited, but operations with cryptocurrencies are carried out on exchanges, exchangers and other resources on the Internet, as well as in many offline companies: shops, service centers and even government agencies [17]. The following are examples of how cryptocurrency is used in some countries:

- USA: legislative regulation, sale of BTC at a state auction, Bitcoin is recognized as property.
- Singapore: Bitcoin can be a means of payment, tax is levied on both goods and services.
- Hong Kong: Bitcoin is recognized as “virtual value” and can act as payment for goods and services.
- Australia: Bitcoin is considered property, the government has published

Guide “Bitcoin for Enterprises”. It is also worth noting that bitcoin ATMs have already been installed in Germany, Canada, Switzerland, Slovakia, Czech Republic, Russia and Hungary. Also, the European Court of Justice equated bitcoins and other cryptocurrencies with traditional money. In Ukraine, cryptocurrencies are not widespread now, and will likely become "outlawed" soon [17].

Impact of the cryptocurrency market on various sectors of the world economy and spheres of society. According to an earlier analysis of the market, it can be concluded that at the present stage, the influence of cryptocurrencies on the world economy is very significant, mainly due to the number and amounts of funds invested in them, as well as because of their growing demand as a means of payment and protection from outside interference.

Every year, the impact of cryptocurrencies leads to changes in various industries. So, for example, bitcoin began to be accepted as payment in companies operating on the Internet. One cannot help but notice the potential impact of cryptocurrency on central banking. The Bank for International Settlements (BIS). [17].

In addition to economic influence, the cryptocurrency market also affects the impact on various spheres of society.

Influence on the political sphere. No government can fully control cryptocurrencies. Their growing popularity is forcing governments in many countries to take action to regulate the use of cryptocurrencies. Bills are being passed to limit the circulation of virtual currencies.

Impact on the labor market. The demand for the most important specialists in the blockchain industry is growing. The society is in need of such specialists as a lawyer specializing in the cryptosphere, a crypto-marketer (a professional in promotion and public relations), a financier of the blockchain sphere, etc [18].

Consider several features of the negative impact of cryptocurrencies on the global economy:

1. One of the most negative is the connection with the underworld: money laundering, the purchase of weapons and drugs through black markets, the most

famous of which are Silk Road and Alphabay. The criminalization of the economy leads to a reduction in production, the funds and resources belonging to the state are siphoned off into personal property, thereby weakening it [18].

Bitcoin is a financial pyramid. Cryptocurrency platforms are not a pyramid scheme, but they are very convenient for building them. The first to notice this was the American Trendon Shavers, who created the Bitcoin Savings and Trust fund. Another giant pyramid appeared at the end of 2014 in Hong Kong - the pseudo-exchange MyCoin, which collected money, promising a payback in a few months, and then fabulous profits.

The danger of this kind of shadow structures is associated with the fact that it has a negative impact on the financial market and undermines the confidence of citizens in financial instruments, as well as forms a negative attitude towards the activities of public authorities. In addition, their activities are not related to the production of goods and services and an increase in GDP [18].

3. Decentralization of cryptocurrencies as a threat is less discussed, but for the state, it looks much more serious and can bring adverse consequences: if the cryptocurrency gains a certain weight, or rather capitalization, its rate will significantly affect the country's economy. This could potentially undermine the sovereignty and economic independence of the state [18].

4. Cryptocurrency is a direct threat to the Central Bank and political systems, since the further active development of bitcoin will lead to the disappearance of banks as intermediaries [18].

## **1.4 Risk management**

Risk management when speculating or investing in the stock market is tight control, by a trader, of his open positions, regardless of his trading style and the time horizon of holding these positions. Strict control means understanding at what predetermined price levels unprofitable positions will be closed and profitable ones will continue to be held [19]. Those, the only thing that a trader can control is losses



incurred when the price of an exchange instrument for an open deal does not go in his direction. The four main categories of risk management decisions are:

**Avoidance.** The best way for traders to avoid losses is to make better trading decisions. This includes elimination of risk and / or withdrawal from activities that might lead to that risk.

**Control.** Traders can reduce risks with organizational safeguards to reduce the likelihood of problems. One common way to do this is to calculate profits and losses on a daily basis (daily mark to market) and to limit the size of trading positions [19].

**Transfer.** Transferring risk-offloading risk to a third party (or a different group in the organization) by trading, purchasing insurance, outsourcing, or contract modification. It is done when a trader cannot avoid the source of the risk and wants to limit the size of the risk.

**Acceptance.** Acceptance involves taking on risks and establishing a budget that will cover potential losses.

The main rules of risk management:

Invest in one position no more than 10-15% of the total amount of funds available in.

Another tip from the category of diversification, which insures against ruin. He warns that person cannot invest many of your funds in one deal at once, it is better to correctly distribute them and limit risks, and make your profit more stable [20].

The rate of risk in the transaction should not exceed 5% of the total amount of funds available in.

If trader following this principle, then the loss ratio of any trader will be less than 5% of the sum of his entire capital. This is equal to, or even less, inflation. Depending on the investment area in which the trades are taking place, the risk percentage can be reduced to 1.5%.

A position for a group of instruments should be opened for the guarantee security, which is less than a quarter of the total amount of capital.

Instruments from one group, when general trends in the markets begin to change, behave for the most part in the same way: if one share of the second tier falls, most likely, others will also fall. Therefore, you should not open large positions for only one group. Funds must be deployed in such a way that ones that are more profitable compensate for all transactions that have passed with losses. In order to stay afloat, it is enough that the profitable ones cover the loss a little more than necessary [20].

There must be a balance between diversification and concentration. While diversification is one of the most reliable risk management techniques for mitigating risks, even in its application there should be a measure. It is necessary to balance diversification and concentration of funds. There is no need to turn your portfolio into a "mince" of investment instruments, you just need to open positions in 5-7 groups of instruments. Before compiling a portfolio, it is necessary to determine the correlation between trading instruments. It can be zero, but it is preferable that it be negative. In this case, the future fall of one group of instruments will be compensated by the growth of other groups [18].

Place stop orders. Financial risk management is about to avoid large losses if price changes are not in trader favor, it is best to take care in advance and set a Stop Loss. It makes the price fixed, which will allow the trader to close the position on it: the position is closed if there is both an overvalued and too low price. The way the Stop Loss will be set is influenced by the market analysis, as well as the personal readiness and ability of the trader for dangerous, risky, but profitable trades [20].

When placing Stop Loss, trader need to correctly assess not only the set of technical factors, know how to protect and increase capital, but also the characteristics of personal qualities, in particular, about your ability to take risks.

Determine the rates of return. For any, even hypothetical, operation in the market, it is necessary to determine what the ratio of profit and loss rates will be. Such a forecast is necessary in order for the risks to be balanced in the event of undesirable phenomena in the market [20].

## 2. TECHNICAL AND FUNDAMENTAL ANALYSIS OF THE CRYPTOCURRENCY MARKET

Compare and contrast the two methods and investigate some of the pros and cons. Both ways of trying to tackle a question that's always of interest to investors which is whether a company is cheap or whether it's expensive. They come at the problem from different directions. Fundamental analysis and technical analysis are not methods that are restricted to investing in shares. They used by lots of different types of traders and they all use fundamental analysis or technical analysis or maybe a combination of the two in different ways [21].

Fundamental analysis assumes that prices are determined by economic forces, so why not research the economic aspects of a company to see if it's cheap, expensive, or worth it right. With fundamental analysis, traders who use available data to measure the value of a stock take the time to evaluate; all available information, everything that affects the company economically. This can be both quantitative and qualitative information. Quantitative ones are exact numbers. Things that can really be counted, as the name suggests; this is due to the quantity [22].

Whereas qualitative is anything that cannot be quantified; intangible assets, as the name suggests. This is due to the quality of the company; essence of character. There are examples to illustrate these two terms. Some examples of quality information: brand value, brand awareness, company management; the people who actually run it; what their track record is and what they say about where the company is heading. Then some examples of quantitative information: dividends, earnings, sales, or book values. Traders can then actually compare this information to the price with what we call the pricing ratios; price to profit, price to sales, and price to book value. For both quantitative and qualitative information; together they help us learn more about the company's financial health and future growth prospects. In contrast, technical analysis says all those things that fundamental analysis is worried about; things like dividends, earnings and who's running the company. Traders don't need

to worry about those separately because what we're going to assume is that all those things are already reflected in the price. Technical analysis assumes it's all in the price [23]. Therefore a technical analysis purist might say that effectively everything they need to know is in the charts. At a basic level just a chart by itself does offer a visual summary of what a stock has been doing. That tells traders a lot more than just staring at price tables but beyond this, we have this concept that looking at historical price data, can be a guide to the future what has happened before. It might tell traders a little bit about what is yet to come [21].

When traders talk about looking at what price is doing and has been doing recently, this is what we refer to as price action. Some key concepts here are support and resistance, trends and trend lines price breakouts. Alongside recognizing price action we have a host of technical the cases available like moving averages, isolators and measures of volatility.

By volatility we mean how much price has been moving. Price action and technical indicators are just looking at price charts with no recourse to the fundamentals. Fundamental analysis and technical analysis benefits or any drawbacks from using the two different methods. With fundamental analysis one of the key assumptions is that the price will reflect fundamentals in the long run and investors relying on fundamentals. Traders see that a company is undervalued and therefore buying shares in the company due to it's data that will in time increase in value but traders don't know when. It tells nothing about the timing or when this eventually going to happen so it's a drawback. Also because there is so much fundamental information available such as financial statements, balance sheets or announcements; so to stay on top of it for one company, it takes quite a chunk of time [22].

Thus fundamental analysis is time-consuming while technical analysis looks at things from a different direction to fundamental analysis whereas fundamental analysis looks at economic factors and driving price. Technical analysis can clue traders in to sentiment and speculation that fundamental analysis doesn't look at [22].

Traders can also use our technical tools to receive trading signals and therefore inform about investment timing. Fundamental analysis can tell that a cryptocurrency is undervalued and therefore we know we want to buy it, but technical analysis can help find the optimal time to buy it. Many investors and traders tend to use a combination of both, even if they lean heavily in favor of one over the other. Even someone who strongly advocates technical analysis is unlikely to ignore if the CEO has left the company or if the profit margins are extremely low. Looking at it the other way, someone who strongly supports fundamental analysis is likely to glance at the chart anyway, just to get a feel for what the company's price is doing. From the point of view of well-known traders, I want to use all the tools available, so if there is any advantage, if any can be obtained from one of the tools, why not use it [23].

In addition, a long-term investor is more likely to rely on fundamental analysis and take it to the extreme: a fund manager who has dealt with the investments they intend to make in recent years and years may not use technical analysis at all. Instead, they base their decisions solely on fundamental analysis. While short-term traders can only rely heavily on technical analysis. But what tools do traders use? Well, a TA purist or technical analyst usually uses 100% technical analysis. Then someone who traders call a heavy tech can make most of their decisions using technical analysis, but keep an eye on things like getting reports or paying attention to major macroeconomic releases, so they will use technical analysis about 75% of the time [ 23].

Then we have a person we call Ambitrader who will look at both fundamental and technical aspects, so 50/50. Perhaps they are using technical analysis to confirm the decisions they make by looking at the fundamentals, or perhaps they are using technical analysis as a way of timing their entries and exits after deciding what to do based on fundamental principles. Then we have someone called a random chartist who focuses heavily on fundamental analysis but may glimpse the chart from time to time, so these people would rather look at 25% technical and 75% fundamentals. Finally, we have people like Warren Buffett who are 100% fundamental. One could

describe these people as investors rather than traders, but this is not necessarily the case. Ultimately it depends on the person. The golden rule is to use what works well for you [24].

## **2.1 Resistance and support levels**

Support and resistance is ignored or at least not given the weight it should be by plenty of new traders. They're too busy focusing on Fibonacci levels, Bollinger Bands, MACD-s, Pivot Points and they miss out on this basic bit of market information. Because it's so important, the principle of support and resistance. It's where the market decides where maybe things have got a little bit too expensive, maybe things got a cheap and reacts accordingly [25].

For example if last month the price of oil fell to \$45 and then rallied and got pushed as high as \$50 if it starts going back towards \$45 again. Where the market saw the value there a month ago, we want to see if the market see value there again and the expectation is that we're going to see the buyers come back in. Traders have shown a market that's going down hits the level, then rallies up to a level known as resistance level where the market rallied before and it can't get through [25][26].

Some people would see a failure at resistance as an opportunity to sell short, which stops above. This can be any sort of timeframe; in a weekly, daily, hourly or 10 minute timeframe. The market comes down, traders may see the market rally but it doesn't break the old low so we have the potential for support forming. Some people would see this as an opportunity to buy with a stoploss underneath the low [26].

Instead good trader should focus on support and resistance because it's the market telling exactly where there is supply and demand and where there have been buyers and sellers. This is a long-term example of a resistance. This is the price of bitcoin (Fig. 2.1).



Figure 2.1 - The price of bitcoin coming to a resistance level of 55,200\$

Each candle represents a week's worth of trading. These are weekly candles. It's trying to break 55,200\$ and a few weeks later comes back to it again. About six weeks later its back to it again. So we have a definite level of resistance. In near future the price comes up to resistance level and going down (Fig. 2.2).

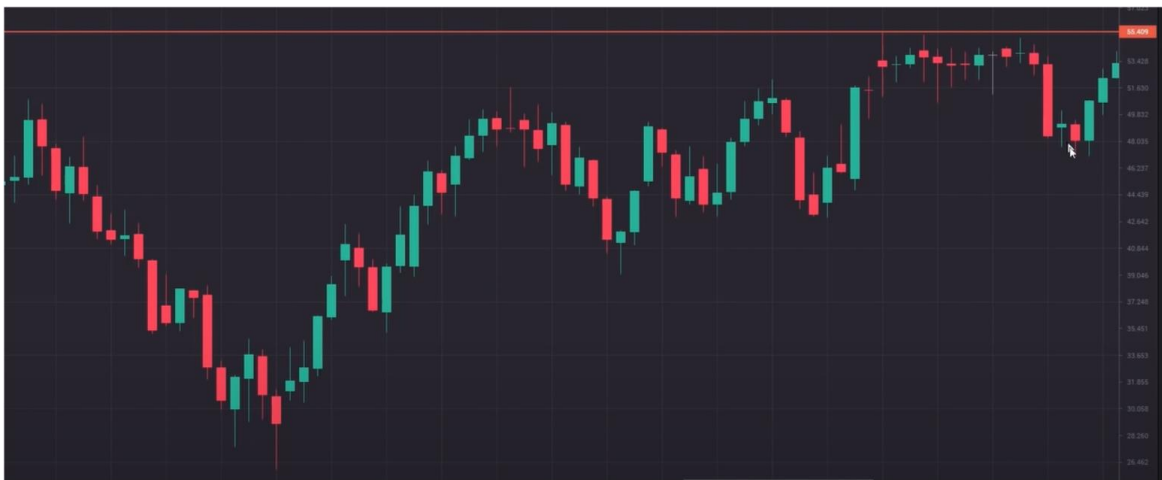


Figure 2.2 - The price of bitcoin rebounding by the resistance level

The market selloff below \$48,100 then comes back for another go. That is resistance. Traders who think this resistance is going to stay in place might be looking to sell short with stops above and if moving the timeframe again, you can see that would have worked (Fig. 2.3).

The market did sell off. It proved to be a big level at the beginning of the year and what's interesting as we head towards the end of the year is that we are back up here again.



Figure 2.3 - Another approach of bitcoin price to the resistance level

Support and resistance levels also serve as trend indicators that determine the market trend - bullish or bearish. This is done by drawing a line connecting the highs and lows of the price action. If it creates an upward line, the trend is bullish. On the other hand, if the created line is downtrend, the trend is bearish.

In most cases, support levels can also become resistance levels, and vice versa when the trend changes. This can be done by extending the line towards the current or future price range [26].

Regardless of the market trend, support and resistance levels are paramount to a winning trade. It is a simple yet powerful indicator that any trader should use to track the best areas and levels when to enter and exit a trade. Only by practicing setting support and resistance levels can a trader truly benefit from these indicators.



## 2.2 Working with timeframes

Traders who sometimes called position players are looking to profit from substantial moves in price in the market that occur over several months. The idea being that if a market is moving up steadily over 3, 6 or 9 months. Often when traders looks at a main chart as the one that make your trading decisions primarily from, what can also help is to look at a timeframe that's an order of magnitude larger. If looks at daily charts to make your main trading decisions, trader might also look above at a weekly chart just to give you that wider feel for prevailing forces in the market. One of the good things about long-term trend following is that it's fairly low maintenance. If traders making decisions based on daily charts he not really going to have to be keeping an eye on the market the whole time. Trader might only need to really sort of do a little bit of maintenance a couple of times a day just to check how things are going if say you had a stop in place to maintain your risk when you aren't looking [28].

That's really a pro of this approach. The cons are that when trading in this kind of style the trading opportunities are actually going to be really quite infrequent. This suits someone who's very patient. But it also suits quite a specific mindset because often trading strategies that go with trend following breakout strategies you are looking you see a certain amount of breakout, you jump on the back of it in the hopes that that develops into one of these long lasting trends but more often than not they don't. They break down which means that it can be quite tough psychologically so it takes a certain types of mindset to be able to live with the fact that a lot of time you're trading, you're losing, and then once every so often you make a really big profit that outweighs all those losing trade. Therefore it can be rough psychologically. A slightly shorter timeframe trading strategy is swing trading. Swing trading is similar in a sense to the last one in that trader looking forward to catch swings in price in a certain direction. Trader looking for patterns that may occur where you're going to get these price moves occurring, but in a much shorter duration [27].

The advantage of this is that all trading opportunities you are going to come along more frequently. The type of timeframes of charts trader might be looking at is hourly charts all the way through to a 4-hour chart as your main chart for making your decisions, or maybe even a 30-minute chart. Then trader will look on order of magnitude above just to give you that wider picture. Moving to a shorter timeframe trader have day traders who put typically hold positions for a few hours [28].

The real day trader will be out of position, as the name suggests, for the rest of the day. One of the benefits of this is that it reduces the risk of sudden news that negatively affects the market and could negatively impact your position if you had one. One of the drawbacks of day trading is the high demands on concentration and market attention. This is great service. The types of time frames and charts you can look at can usually be 5 minute, 10 minute, or 15 minute charts. A specialized type of day trader that gets in and out even faster is the scalper. A scalper is someone who is permanently there. He is a high frequency trader and is just trying to break the spread and get a few pips here and there. This is the highest degree of support for these different trading styles. It takes incredible concentration and a lot of time. You must constantly pay attention because one of the key requirements for this type of trading is to keep risk management under control. If you only get a few pips of profit when everything is going well, it goes without saying that you cannot afford to take 15, 20, 30 pips of loss if you were wrong [27].

Thus, the trader really needs to stay fully focused, maintain strict discipline and control their losses. Since it comes back to swing trading, which can be described as sedentary, it is the middle ground between the two in terms of these pros and cons: how much time do you need, how much maintenance it requires, or how many trading opportunities it offers. ... Long-term trading and trend following offer infrequent trading opportunities and low operating costs [29].

Scalping and day trading is a higher level of service, while really frequent trades are being made all the time. Swing trading is the sweet spot between the two, where it offers you a fair amount of trading opportunities. It still has quite high maintenance requirements, but nowhere near as high as scalping. What suits you

best depends on the person. You need to look at yourself and understand what suits best [29].

### 2.3 Japanese candles

Financial analysis really boils down to two simple things: reading charts and reading news. There are many types of charts, but candlesticks or candlesticks are the most popular. Such a chart consists of red and green "candles" or "candles" lined up one after the other (Fig. 2.4) [30].



Figure 2.4 - Japanese candles

Each candlestick gives you detailed information about price movement in a given time interval. In fact, candlesticks are the best way to visualize the ups and downs in price so you can spot potential buying or selling opportunities. Each candlestick consists of a body and one or two “tails” protruding from it, called “shadows” (Fig. 2.5) [30].

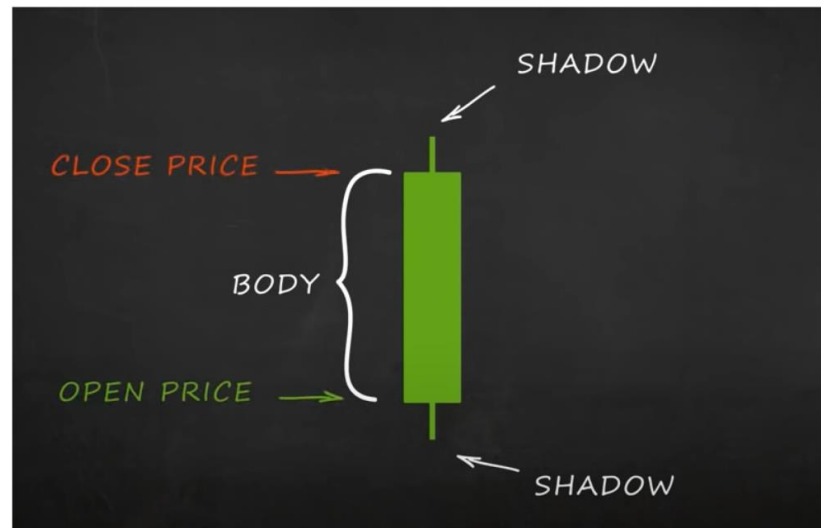


Figure 2.5 - What is a Japanese candle made of

Bullish and bearish engulfing. A bullish engulfing consists of a red candlestick followed by a large green candlestick that completely engulfs the red candlestick and bearish doing the same but with engulfs green candlestick (Figure 2.6) [31].



Figure 2.6 - Bullish engulfing pattern

The pattern is an indication for a market turning point. In simple words, it is likely that the market may start going up and you can buy. The indication is even stronger if the green candlestick engulfs two or three red candles [30].

Hammer. The name of this candle is much self-explanatory. Trader will recognize the hammer by its short body, lower shadow that is about two or three times the length of the body, and a shorter upper shadow or no shadow at all (Fig. 2.7).

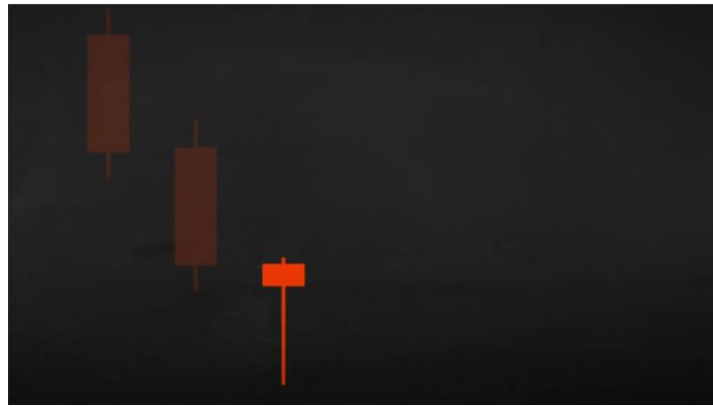


Figure 2.7 - Hammer pattern

The hammer is usually a clear indication of a price decline, a change in direction, and the start of a rise so you can start buying. However, just in case, the trader can always wait for additional confirmation. Such confirmation is, for example, the closing of a green candle above the opening of the hammer.

Piercing line. The piercing line is also a two-stick pattern, consisting of a long red candle followed by a long green candle. There is usually a significant gap down between the close of the first candle and the open of the green candle. This indicates strong buying pressure as the price is pushed to or above the previous day's average price (Fig. 2.8) [32].

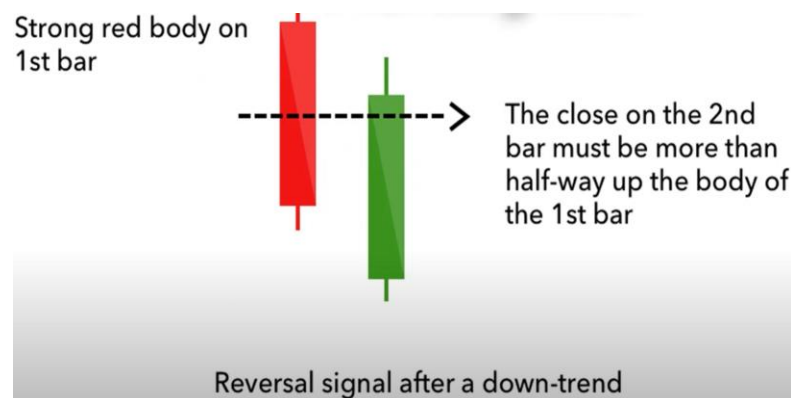


Figure 2.8 - Piercing line pattern

Three white soldiers. A sample of three white soldiers takes place over three days. It consists of successive long green or white candles with small wicks that open and close gradually higher than the previous day. This is a very strong bullish

signal that occurs after a downtrend and shows a sustained increase in buying pressure (Fig. 2.9) [32].

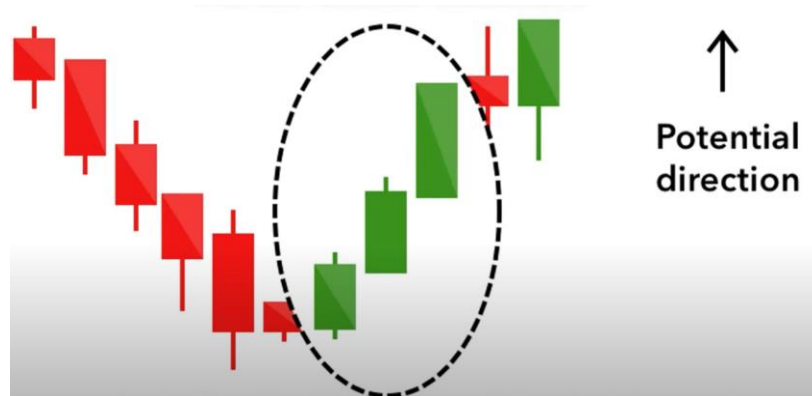


Figure 2.9 - Three white soldiers pattern

Hanged. The Hanged Man is the bearish equivalent of a hammer. It has the same shape but forms at the end of an uptrend. This indicates that there was a significant sell-off during the day, but buyers were able to push the price up again. A big sell-off is often seen as an indicator that the bulls are losing control of the market and reversal morning star, shows reversal potential direction (Figure 2.10) [32].



Figure 2.10 - Hanging man pattern

Three black crows. The Three Black Crows candlestick pattern consists of three consecutive long red candles with short or nonexistent wicks. Each session opens at the same price as the previous day, but selling pressure pushes the price lower and lower with each close. Traders interpret this pattern as the beginning of a

bearish downtrend, as sellers overtook buyers for three consecutive trading days (Fig. 2.11) [32].



Figure 2.11 - Three black crows pattern

## 2.4 Volumes

Volume is the number of shares traded over a period of time. If a trader is on a daily chart, he knows that the volume of these candles represents the value of stocks sold in one total day, if it is a weekly chart, it is one full week and so on.

It is important to distinguish between the volume in rubles and just the volume in the price. Volume - the number of shares; number If we take a stock, such as a stock worth one dollar, and we increase that traded one million shares, we know it is a million dollars. If we compare this with a twenty-dollar share, which trades 500,000 shares, in the first case we can say that the volume of dollar shares is more, but if you do not mean price shares by the number of shares sold. When we make 1 million shares per share for one dollar, you get \$ 1 million, and 500,000 shares per share for \$ 20 will give you \$ 10 million. It is important to have this metric to compare different stocks that can be valued at different levels [34][35].

The object also indicates liquidity and many other trading tips. It is very important that we have liquidity because volatility and trading opportunities arise along with liquidity. So liquidity is the amount we see, and if you see a stock with very low liquidity, it bounces off making charting difficult and difficult to trade.

Thus, constant volume and liquidity are important when you make trading or investment decisions [35].

There are empirical rules with volume; one of them for bulls is that when you always want to watch, increasing the bullish volume on the waste trend, which shows strength. Volume is almost like an indicator that you can see a rapid movement and see a decrease in rapid volume as you move up. This made me linger in this element of the step and wonder if it will be fake or the "Bulls" will be able to maintain this dynamic. If you do not see an increase in rapid volume on the trend, the trader knows that the volume supports the target action [34].

You can also recognize that you can get out of volume breakouts. When you see that the stock range is narrowing, the trading range is getting bigger and bigger, this is very often accompanied by a decrease in volume. Then, as soon as this breakthrough occurs from the narrowing chart, it is provided by the total volume, and this total volume can give you some idea that the trading range is about to generate volatility, and the movement of the whole action is about to increase.

Those are other things we can say; if the chart is in the initial trend and the trader sees that a pair of red days is beginning to form and he is accumulating bearish volume, this warns the bulls that the trend may change in the use of the bear [34].

If, on the contrary, if the trader is in the initial trend, you will see a decrease in bearish volume on the rollback, that is, precisely because you want to see the bulls. This is a normal healthy seal. We know that the net cryptocurrency, it just goes straight up, so when we create trends we have higher lows and higher highs, and it's important that we reduce the bearish volume decline on these consolidation kickbacks that inspire confidence. In order for them to still control the trend, and the price will still rise. A trader may know to start looking in a different direction. Thus, volume is an absolutely necessary indicator.



## 2.5 Reading RSI and MACD indicators

Indicators are simply a sophisticated way of presenting market data. They take price information, process it, manipulate it, modify it, and find new and interesting ways to visualize it. All of these changes are mathematical calculations with different purposes, but at the end of the day, they all use the same price information that we see in our candlestick conditions. I want to highlight a few very important points regarding indicators. First of all, the indicators are descriptive. They are not root. They take old data for different periods, average it, calculate, modify, use this data and present it in new forms. Thus, indicators tell us what has already happened, not what is about to happen. Secondly, indicators always lag behind [36] [37].

For those who, without understanding mathematics, are looking for lines crossing them, this is useless. The RSI is called the Relative Strength Index and it is an indicator that measures the relative speed of price movement. Thus, an indicator tells you that in fact a particular stock is overbought or oversold. It does this by presenting the value on a scale from 0 to 100, where 100 is oversold and 0 is overbought. It takes 14 periods to get price information, so looking at the daily chart, a trader can use the information from the last 14 days. If a trader looks at a five-minute chart, he will use the last 14 five-minute periods in his calculations. Thus, this value, presented as any value between 0 and 100, should tell us about overbought or oversold conditions [37].

The trader takes the price information and changes it. Calculation of the actual RSI; what goes on behind the scenes gives the trader our value on a scale of 0 to 100. So we're looking at the RSI, there is one basic computation, an auxiliary computation that has two components with two different computations that add data to the overall dataset ... The calculation shows that the relative strength index is  $100 - 100 / (1 + RS)$ . RS is your relative strength. To complete this calculation, we need to understand what relative strength is, and this is the average gain versus the average loss. RSI is a 14 period impulse indicator, i.e. we use the data for 14 days, if we look at the daily chart (Fig. 2.12) [38].

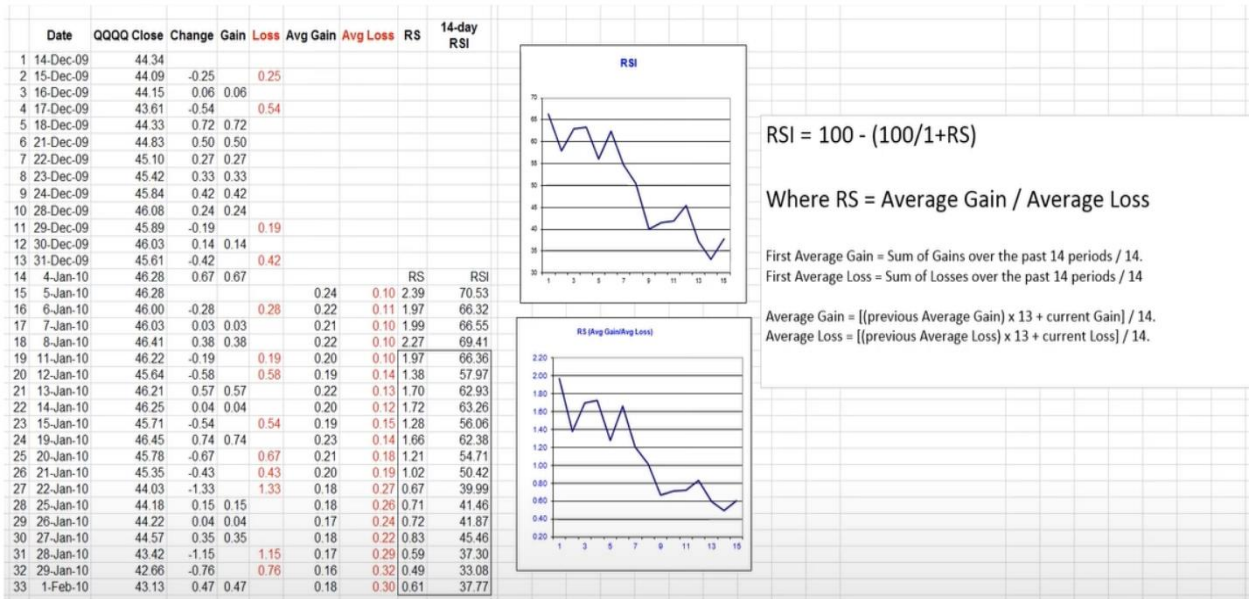


Figure 2.12 - RSI formula

In fact, RSI is two different components for calculating it. The first is the amount of profit for the last 14 periods divided by 14 to get the average. Or, in case of losses for the last 14 periods, divide by 14 to get the average value. Our column of average growth is our first value for average growth, we see that it is the sum of all increments and the set of the previous 14 periods, which add up to an average of 224 [41].

Then RS is simply our average profit divided by our average loss, which gives 2.39. This supports the very first data set for the first representative RS value. After that, when we still include the 14-day average, the trader does not need 14 data periods because it is already included in our first average profit / average lost value. So what is happening now, the calculation varies from the amount of increment over the last 14 days divided by 14, to new calculations, which use the previous average increment multiplied by 13, plus the current increment of more than 14. This probably sounds confusing, and so it is. We can really see that we take this value of 0.2, which we know includes this 14-day data set and the latest increment, which in this case is nothing, and because it is nothing, our value decreases. Since we could have suffered a loss on this day, we see that our average losses are increasing, and the RS is changing as a result. Thus, we seem to have established that RS is the base

value, and we can see that as our average increment increases and decreases, RS changes and moves up and down [39] [41].

RSI, the main component of this calculation, takes this information and uses it for its calculations. So if we look at this value of 70.53 and ignore the magic of Excel, we see that the RSI is  $100 - 100 \div (1 + J17)$ , which in this case represents the RS value for those days. If you're not strong at math, a lot of it can be confusing, and the values we see for RSI are constantly changing because we're constantly getting new data. Every day and every period we see new changes, new prices and RS, and therefore it changes RSI. In our RSI values the trader can see on this chart, they change according to our RS values. The goal I tried to show you is that even the baseline indicator, a single line in the case of RSI, has a very complex mathematical scheme. So to understand how an indicator works, you need to explore what is going on behind the scenes, you need to understand the basics of this indicator and know what that value really is [39] [40].

### **3. EFFECTIVE INTERNATIONAL INTERNET-STRATEGIES IN THE CRYPTOCCURENCY MARKET**

If a trading strategy brings a stable income for a long time, then it is a profitable trading strategy. Profitable strategies are the most important factor in the effective work of a trader, increasing the efficiency of his work in the cryptocurrency market. Results of trading strategies, indicators of their profitability. These indicators are taken from the monitoring of accounts based on the results of real trading and are conducted by independent reputable companies. Experienced traders can judge by numbers how profitable it is to use a particular strategy used in the financial market. In practice, a huge number of trading strategies are used. We can say that how diverse are the ways of thinking, the logic of traders, emotions, willingness to take risks, so are the strategies of cryptocurrency trading. But not every strategy is profitable. Success in the market does not depend on the luck of the trader, but on the right strategy.

This chapter contains the best international trading strategies on the cryptocurrency market as of 10/06/2021, which will be relevant for a long time. Each of them is developed into excellent profits. Observing risk management and adhering to the trading algorithm, every good trader can make money on them.

### 3.1 Trend Ribbon Strategy

One moving average (SMA) is used. The channel is conformed at a moving average rather than prices. Blue is an uptrend. Red is a downtrend. If the candle has closed above the ribbon - open long (and close short). If the candlestick has closed below the - open short (and close long) (Fig. 3.1).



Figure 3.1 - Trend Ribbon strategy, signals on BTC/USD contract chart

### 3.2 Turtles Strategy

Two positions types are used. Fast and slow. The period for fast and slow user specifies separately. For example for quick: if the price is higher than the highest price in the last 10 candles, then open a long position using a stop order. If the price is below the lowest price in the last 20 candles, then close the long position. In the same way for a short position and also for slow positions (Fig. 3.2).

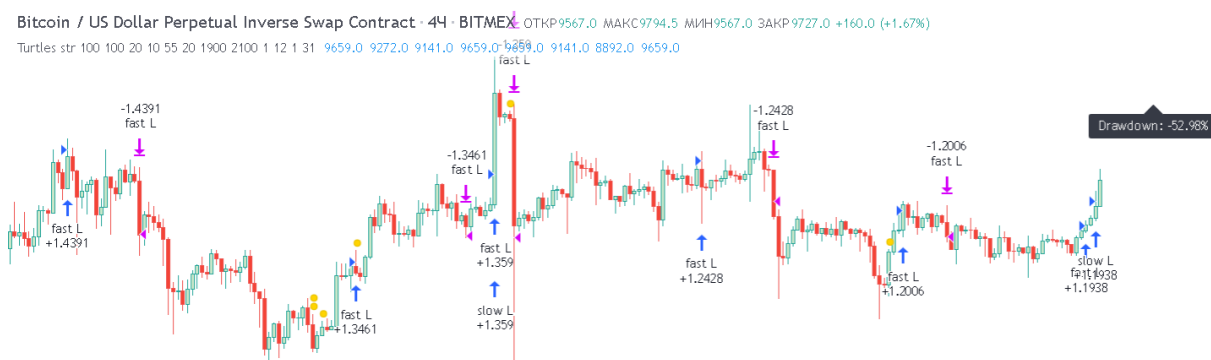


Figure 3.2 - Turtles Ribbon strategy, signals on BTC/USD contract chart, 4H timeframe

### 3.3 RiskTurtle Strategy

Two Donchian price channels are being created. Fast and slow. The number of candles for the channels is selected by the user. By default, 20 bars for fast and 50 bars for slow. Blue lines show a slow price channel. In addition, used to enter positions. Using market stop orders. A fast price channel is needed to find out the price for stop-loss. This is the centerline of the fast channel. Shown by a red line. The background shows when the positions were opened. Lime background for long positions, and red background for short positions. There is no background if there are no positions (Fig. 3.3).

**Stop Placement.** The Turtles placed their stops based on position risk. No trade could incur more than 2% risk. Since 1N of price movement represented 1% of Account Equity, the maximum stop that would allow 2% risk would be 2N of price movement.



Figure 3.3 - RiskTurtle strategy, signals on BTC/USD contract chart, 1H timeframe

### 3.4 RiskChannel Strategy

Strategy #1 (stop-loss type = channel). Old classic trading strategy, using breakouts of the Donchian price channel. If the price is above the price channel top line, open the long position (and close the short position). If the price is below the lower line of the price channel, open the short position (and close the long position) (Fig. 3.4).

Strategy #2 (stop-loss type = center). The central line (red) is the middle of the Donchian price channel. Used to close any positions. If the price is higher than the price channel top line, open the long position. If the price is lower than the lower line of the price channel, open the short position. If the price has crossed the central line of the channel, close any position (Fig. 3.4).

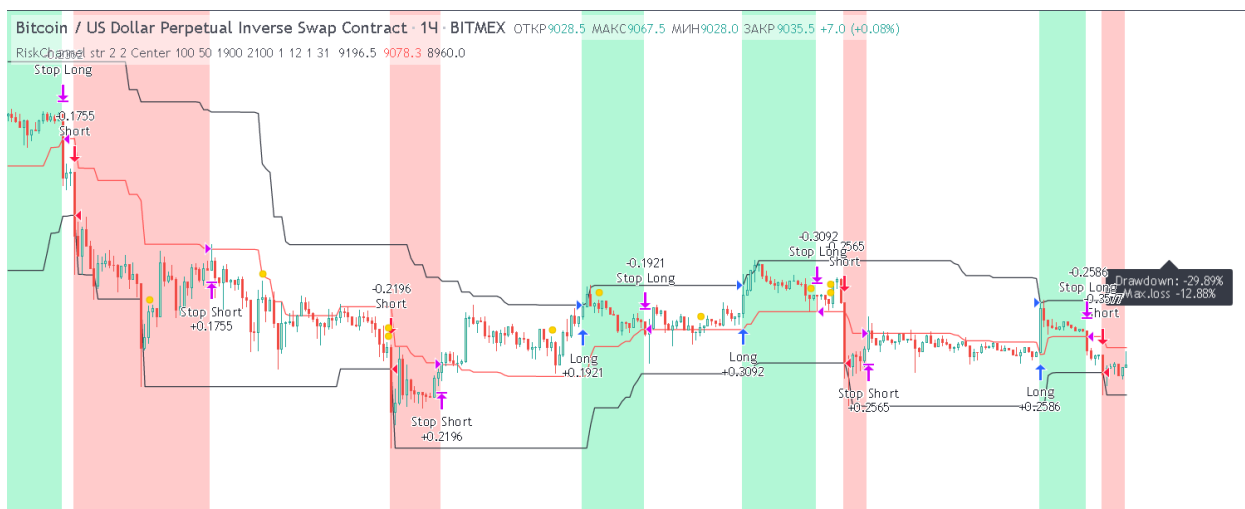


Figure 3.4 - RiskChannel strategy, signals on BTC/USD contract chart, 1H timeframe

### 3.5 ZZ-6 Strategy

Normal lines are not redrawn. Dotted lines repaint, but do not affect trading. Lime lines above - level from a local high bar. To open a long position. Using a market stop order. Red line at the bottom - the level from a local low bar. To open a short position. Using a market stop order (Fig. 3.5).

Order size depends on the risk size parameter and possible loss. If risk size = 2%, it means that the loss will be no more than 2%.

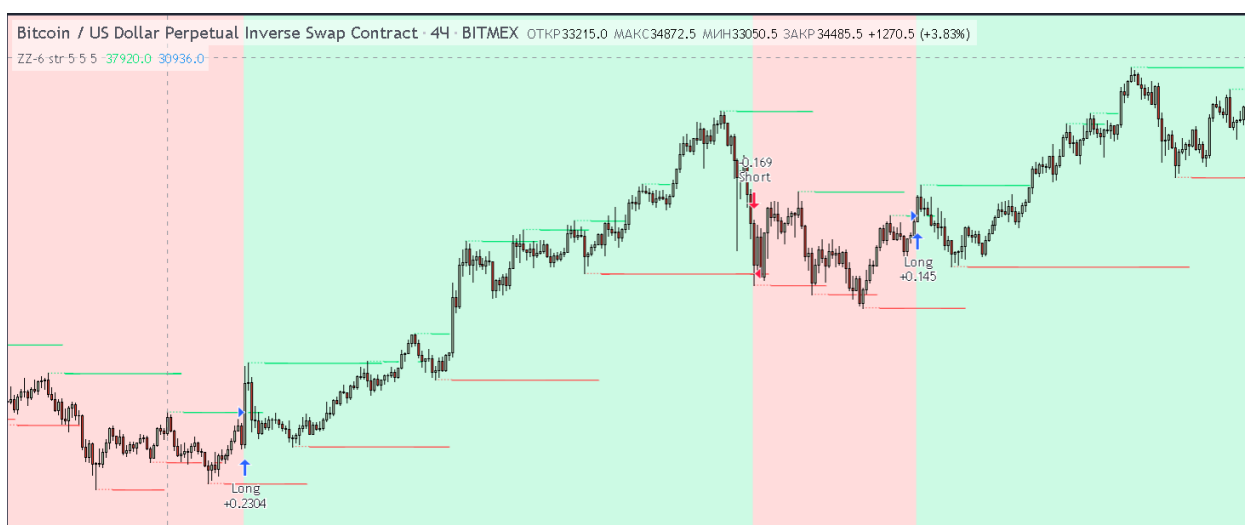


Figure 3.5 - ZZ-6 strategy, signals on BTC/USD contract chart, 4H timeframe



### 3.6 Dex Strategy

The line line is the high-price candle of the previous day. The red line is the low-price candle of the previous day. If the price is going up to the green line, open the long position. If the price is going down to the red line, open the short position (Fig. 3.6).

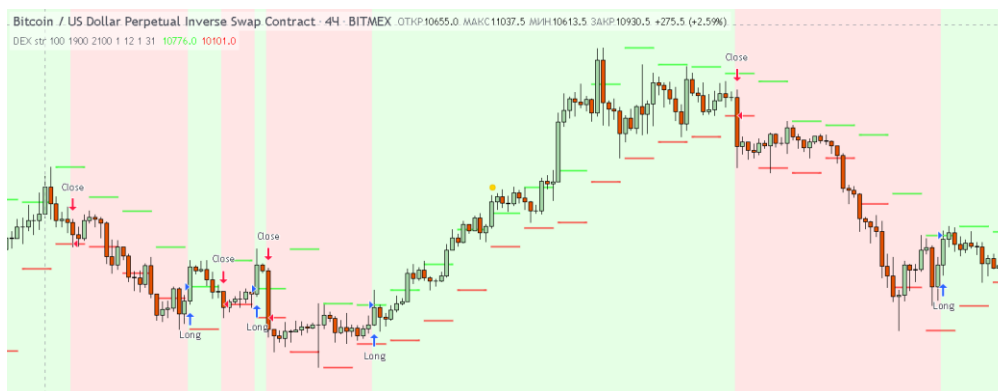


Figure 3.6 - Dex strategy, signals on BTC/USD contract chart, 4H timeframe

### 3.7 SRSI Strategy

Blue line - common RSI indicator. Red line - SMA based on RSI. Upper black line - 50% + limit (custom parameter, 65% by default). Lower black line - 50% - limit (custom parameter, 35% by default). If the red line (SMA) is higher than the upper black line, open a long position. If the red line (SMA) is lower than the lower black line - open a short position (Fig. 3.7).



Figure 3.7 – SRSI Strategy signal on ETH/USD chart, 4H timeframe

### 3.8 DDL Strategy

The lime area is a downward shift in price. The red area is a price shift up. Yellow background - signal for opening position. If the lime range is less than the long parameter, open the long position. If the candle is green, close the long position. If the red range is more than a short parameter, open a short position. If the candle is red, close the short position (Fig. 3.8).

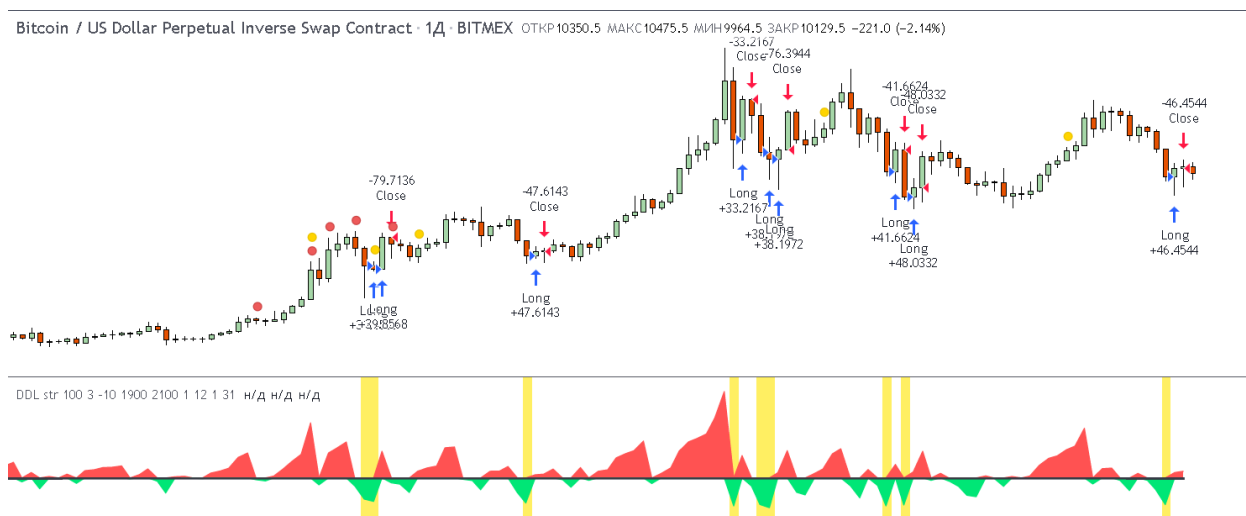


Figure 3.8 – DDL Strategy signals on BTC/USD contract chart, 1D timeframe

## CONCLUSION

Today the cryptocurrency market is unstable, but whatever the market is, a good trader will be able to profit from it. After a long study, which indicators are the best for a particular trading strategy, where should a beginner trader start, which strategies are more efficient, I came to the conclusion that there are no bad strategies, there are bad traders.

As the market for decentralized finance develops, the number of new projects that can be invested in is constantly growing. In addition, the cryptocurrency industry offers a wide range of platforms with the same variety of trading pairs and instruments. At first, need starting in trading with small amounts to get that experience . When planning a long-term and profitable activity, trader have to devote a lot of patience and time to learning online trading.

I have outlined the basic rules for myself that you need to adhere to when working with internet-trading strategies in cryptocurrency market:

1. Need to remember that cryptocurrencies are an extremely volatile asset. Therefore, you need to invest only the money without which you can live and with which you are ready to part forever. For example, investing all your savings in Bitcoin at once is a bad idea that can end in disaster.

2. Need to try to look at everything in the long term. Sharp drops in the cryptocurrency market are common, so there is no need to worry.

3. It must be remembered that the prospects for the entire crypto market as a whole affect the demand for altcoins. When Bitcoin explodes, it hurts smaller-cap digital assets. Investors are starting to withdraw money from altcoins and buy bitcoins in the hope of a quick profit.

4. Need to use market orders. Many exchanges provide an opportunity to place stop orders, which means that an order to buy or sell a cryptocurrency will be executed as soon as its value reaches a given level. So you can immediately determine how much you are ready to lose - and the requests will be automatically executed by a robot that does not give in to the influence of emotions.

5. Need to keep track of cryptocurrency news and follow the global agenda. Bitcoin and Ethereum rates, in particular, were influenced by such major events as the trade war between the United States and China or the beginning of the coronavirus pandemic. At the same time, it is important to understand that it can be very difficult to predict the movement of the cryptocurrency rate against the background of news, so you need to rely on the forecasts of several analysts at once.

## REFERENCES

1. John Markin, "Interpreting a currency pair", fxaccumulator.com, PrimePair. Retrieved 3 2019-10-01.
2. "What is a Currency Cross Pair?" BabyPips.com. 30 November 2010.
3. L.R. Glosten and L.E. Harris, "Components of the bid/ask spread", Journal of Financial Economics Volume 21, 2016-05-07.
4. Adeola Deji-Olowe, "Accounting and Finance, Division Essays on Investor Trading Activity in a Limit Order Book Market", 2013.
5. Staff, Investopedia "Market Order". Investopedia. Retrieved 2018-10-10.
6. U.S. Securities and Exchange Commission, "Limit Order". [https://www.sec.gov/fast-answers/answersstoplimhtm.html#:~:text=A%20stop-limit%20order%20is,specified%20price%20\(or%20better\).](https://www.sec.gov/fast-answers/answersstoplimhtm.html#:~:text=A%20stop-limit%20order%20is,specified%20price%20(or%20better).)
7. <https://www.sec.gov/answers/stopord.htm>
8. U.S. Securities and Exchange Commission, "Short Selling". <https://www.sec.gov/rules/concept/34-42037.htm>
9. U.S. Securities and Exchange Commission, "Stop Limit Order". [https://www.sec.gov/fast-answers/answersstoplimhtm.html#:~:text=A%20stop-limit%20order%20is,specified%20price%20\(or%20better\).](https://www.sec.gov/fast-answers/answersstoplimhtm.html#:~:text=A%20stop-limit%20order%20is,specified%20price%20(or%20better).)
10. Cheng Grace, "7 Winning Strategies for Trading Forex: Real and Actionable Techniques for Profiting from the Currency Markets", Harriman House Limited. 2016-12-08.
11. Frankel Matthew, "Why Day Trading Stocks Is Not the Way to Invest". The Motley Fool, 2017-08-05, 97 p.
12. <http://dictionary.reference.com/browse/swing%20trading>
13. Samuelson Peter, "The "fallacy" of maximizing the geometric mean in long sequences of investing or gambling", Proceedings of the National Academy of Sciences, 2018-07-12, 156 p.
14. M. Nofer, P. Gomber, O. Hinz, D. Schiereck, Blockchain, Bus Inf Syst Eng 59(3):183–187 (2017)

15. Zibin Zheng, Shaoan Xie, Hong-Ning Dai, Xiangping Chen, Huaimin Wang. Blockchain challenges and opportunities: a survey. *Int. J. Web and Grid Services*, Vol. 14, No. 4, 2018
16. Bikalova N. A., Slavkina O. Y. "The phenomena of cryptocurrency and its implication on the monetary system". *Science and Education: New Time* No. 3, 2017-04-05
17. Julapa Jagtiani, Michael G. Papaioannou and George Tsetsekos, *The Journal of Investing Cryptocurrency Special Issue* 2019-07-03, 143 p.
18. Hubbard, Douglas (2009). *The Failure of Risk Management: Why It's Broken and How to Fix It*. John Wiley & Sons. p. 46.
19. Risk management — Vocabulary. International Organization for Standardization. *ISO/IEC Guide 73:2009* (2009).
20. Risk management — Principles and guidelines on implementation. International Organization for Standardization. *ISO/DIS 31000* (2009).
21. "An Introduction to Fundamental Analysis and the US Economy". *InformedTrades.com*. 2008-02-14. Archived from the original on 2009-07-21. Retrieved 2009-07-27.
22. Murphy, John J. "Technical analysis of the financial markets: a comprehensive guide to trading methods and applications", 2018-07-10, 112 p.
23. Graham Benjamin, Dodd David, *Security Analysis*. McGraw-Hill. (December 10, 2015).
24. Theodore Mastery, "Technical Analysis: Cryptocurrency Trading Basics - How To Start Making Money In Cryptocurrency For Newbies", 2019-04-27, 56 p.
25. Alan T. Norman, "CRYPTOTRADING PRO: Trade for a Living with Time-tested Strategies, Tools and Risk Management Techniques, Contemporary Guide from the Beginner to the Pro", 2018-11-30, 299 p.
26. John J. Murphy, "Technical Analysis of the Financial Markets: A Comprehensive Guide to Trading Methods and Applications" (New York Institute of Finance), 1999-01-01, 572 p.

27. Trader Dale, "VOLUME PROFILE: The Insider's Guide to Trading", 2018-08-05, 197 p.
28. Nik Patel, "An Altcoin Trader's Handbook", 2018-06-05, 238 p.
29. Rolf Schlotmann, "Trading: Technical Analysis Masterclass: Master the financial markets", 2019-02-17, 183 p.
30. Marvin Neufeind, "Cryptocurrency - A Trader's Handbook: A Complete Guide On How To Trade Bitcoin And Altcoins", 2018-05-05, 287 p.
31. Fred Mcallen, "Charting and Technical Analysis", 2012-04-06, 275 p.
32. Satish Gaire, "Chart Patterns: Trading-Desk Booklet", 2020-06-20, 78 p.
33. R.S. Varnes J. D., "Chart Logic - Technical Analysis Handbook (Black and White Edition): The Comprehensive Guide to Trading Cryptocurrencies and Tools to Outperform Your Basic Buy and Hold Investor", 2020-22-07, 195 p.
34. Alan T. Norman, "CRYPTOTRADING PRO: Trade for a Living with Time-tested Strategies, Tools and Risk Management Techniques, Contemporary Guide from the Beginner to the Pro", 2018-05-02, 297 p.
35. Warren Larsen, "MASTERING CRYPTO 2021: This book includes: BLOCKCHAIN TECHNOLOGY EXPLAINED & BITCOIN AND CRYPTOCURRENCY TRADING. A Beginner's Guide About Definitions, Crypto Exchanges, Indicator and Trading Tips", 2021-11-04, 203 p.
36. Brandon Smith, Samantha Novak, "Cryptocurrency Trading Strategies for Beginners: 50+ Tips & Secrets for Day Trading Bitcoin + Alt Coins, Market Psychology, Technical Analysis & Making a Living in Crypto", 2021-04-04
37. Jason Dukes, "CRYPTO RICH: A Beginners Guide to Cryptocurrency Investing", 2021-06-04, 223 p.
38. Paul Vigna, Michael J. Casey, Sean Pratt, "The Age of Cryptocurrency: How Bitcoin and Digital Money Are Challenging the Global Economic Order", 2015-28-04.
39. Warren Larsen, "BITCOIN AND CRYPTOCURRENCY TRADING FOR BEGINNERS 2021: Basic Definitions, Crypto Exchanges, Indicator, And Practical Trading Tips", 2021-20-03, 105 p.

40. Mark Zuckerman, “Bitcoin and Cryptocurrency Trading for Beginners: Novice to Expert 3 Books in 1”, 2021-10-04, 221 p.

41. Fred Lee Brandon, Nathan Paige, Shadeed Eleazer, “Adopting Blockchain and Cryptocurrency: Embracing a Digital Future”, 2020-15-02, 44.p



## APPENDIX A

### SUMMARY

Селін А.С. Міжнародні стратегії інтернет-торгівлі на криптовалютному ринку. – Кваліфікаційна бакалаврська робота. Навчально-науковий інститут бізнесу, економіки та менеджменту "БіЕМ", Суми, 2021.

Кваліфікаційна бакалаврська робота присвячена вивченню теоретичної та практичної інформації інтернет-трейдингу на ринку криптовалют, з метою її структурування, для подальшого застосування в міжнародних стратегіях інтернет-торгівлі. Визначення сучасного впливу криптовалютної торгівлі, аналіз основних індикаторів для оцінки міжнародних стратегій інтернет-торгівлі. Оцінка технічного та фундаментального аналізу на біржах криптовалют. Визначено найефективніші міжнародні стратегії інтернет-торгівлі на ринку криптовалют.

Ключові слова: Вплив криптовалют, Блокчейн, Ризик-менеджмент, Технічний аналіз, Фундаментальний аналіз, Японські свічки, Рівень підтримки, Рівень опору, Біткойн, Альткойни, Індикатори, Осцилятори, Міжнародні стратегії інтернет-торгівлі.

Selin A.S. International internet-trading strategies in the cryptocurrency market. - Bachelor's qualification paper. Educational and Scientific Institute of Business, Economics and Management "BiEM", Sumy, 2021.

The qualifying bachelor's thesis is devoted to the study of theoretical and practical information of internet-trading in the cryptocurrency market, in order to structure it, for further application in international internet-trading strategies. Determining the current impact of cryptocurrency trading, analysis of key indicators for assessing international internet-trading strategies. Evaluation of technical and fundamental analysis on cryptocurrency exchanges. The most effective international internet-trading strategies in the cryptocurrency market are determined.

Keywords: Influence of cryptocurrencies, Blockchain, Risk management, Technical analysis, Fundamental analysis, Japanese candles, Support level, Resistance level, Bitcoin, Altcoins, Indicators, Oscillators, International internet-trading strategies.