

INSTITUTO UNIVERSITÁRIO DE LISBOA

Differences and similarities between Traditional Day Trading and Cryptocurrency Day Trading

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Master in Management

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Resumo

A negociação de ações existe há mais de um século e a negociação de criptomoedas existe há pouco mais de uma década. O mercado de criptomoedas vem crescendo em um ritmo tremendo, a capitalização de mercado ficou abaixo de US\$ 2,9 trilhões em seu ponto mais alto. Alguns traders tradicionais podem ficar tentados a tentar negociar com criptomoedas e multiplicar seus lucros porque a criptomoeda provou fornecer ganhos irreais. O objetivo deste artigo é descobrir se os traders tradicionais e os traders de criptomoedas seguem as mesmas estratégias ou se possuem seu próprio conjunto de estratégias.

Durante a redação desta dissertação, uma simples comparação das respostas da pesquisa foi feita para alcançar os resultados. O artigo tenta destacar as principais diferenças e semelhanças entre os traders que negociam apenas criptomoedas e traders que negociam apenas títulos tradicionais, avaliando as respostas fornecidas nas pesquisas e frequentemente utilizando as respostas fornecidas pelos traders que negociaram ambos como referência. Os periódicos da literatura existente e artigos da internet foram amplamente utilizados para completar este trabalho, como os indicadores técnicos utilizados pelos traders, sua experiência, a quantidade de lucro que obtêm, a agressividade da negociação, suas opiniões sobre o futuro da negociação e assim por diante.

O significado teórico e prático do trabalho pode ser útil para futuros pesquisadores deste estudo, comerciantes tradicionais que desejam optar por criptomoeda ou vice-versa, entusiastas de negociação e comissões de câmbio de segurança.

Palavras-chave: criptomoeda, negociação, títulos tradicionais, estratégias de negociação, finanças. **Códigos de Classificação JEL**: G1, G28, G33, G41

Abstract

Stock trading has existed for over a century and cryptocurrency trading has existed for just over a decade. The cryptocurrency market has been growing at a tremendous pace, the market capitalisation was just short of \$2.9 trillion at its highest point. Some traditional traders might be tempted to try cryptocurrency trading and multiply their profits because cryptocurrency has proven to provide unrealistic gains. The aim of this paper is to find out if traditional traders and cryptocurrency traders follow the same strategies or if they have their own set of strategies.

During the writing of this dissertation, a simple comparison of survey answers was done to achieve the results. The paper attempts to highlight the key differences and similarities between the traders who trade only cryptocurrencies, and traders who trade only in traditional securities, by assessing the answers provided in the surveys and often utilising the answers provided by the traders who traded both as a benchmark. The periodicals of existing literature and internet articles were extensively used to complete this work such as the technical indicators utilised by the traders, their experience, the amount of profit they make, the aggressiveness of trading, their opinions on the future of trading and so on.

The theoretical and practical significance of the work may be useful for future researchers in this study, traditional traders who want to opt cryptocurrency trading or vice-versa, trading enthusiasts and security exchange commissions.

Keywords: cryptocurrency, trading, traditional securities, trading strategies, finance. **JEL Classification Codes: G1, G28, G33, G41**

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List of Acronyms:

- NYSE New York Stock Exchange
- SEC Security Exchange Commission
- ANN Artificial Neural Networks
- SVM Support Vector Machines
- PNN Probabilistic Neural Networks
- MA(s) Moving Average(s)
- SMA Simple Moving Average
- EMA Exponential Moving Average
- MACD Moving Average Convergence Divergence
- RSI Relative Strength Index
- VWAP Volume Weighted Average Price

1 Introduction

Since trading is buying and selling of securities, it can be done at different frequencies and in different quantities to maximise profit or minimise losses. Some traders buy the stocks and own the stock while some pay partially (margin) for the stock(s) and sell them to a third party to maximise their profits. The traders can buy more securities and maximise their potential profit by purchasing more by using margin. (Kim et al., 2022). However, this can also lead to excessive losses as the traders lose all the security (money) they put as collateral to obtain the said securities on margin.

Traders use different data available to predict the price and execute a trade, such as historical prices (Gao et al., 2022; Wang et al., 2021), technical indicators (Kara et al., 2011), news information (Kara et al., 2011; Kelly & Ahmad, 2018; Tetlock, 2007) and how the public feels (Bollen et al., 2011; Oliveira et al., 2017; Wang et al., 2019). These different sets of data help them to act and react in their best interests. The primary motive of each trader is to maximise their profits and avoid losses at any given point.

Trading is not only limited to trading securities listed on the stock exchange but can include potentially everything that has monetary value, such as foreign exchange, antiques, special edition items, cryptocurrencies, etc. Traders buy and sell these said items at different frequencies. The most frequent one is cryptocurrency trading.

Traders need to be opportunistic to maximise profits, cryptocurrency is one of the means for many traders to maximise profits. Cryptocurrency trading is sometimes chosen over traditional trading because it offers ease, 24 hours trading, no regulation from the governments, and high volatility. This high volatility can help traders maximise their profits by buying and selling at quick intervals. Conversely, traders can lose a lot of money because of this unpredictable volatility. Moreover, since cryptocurrency trading is unregulated, this allows the dealers to maximise their profits from uninformed traders. The exchanges offer very high margin rates as opposed to regulated trade offices. For example, Bite, one of the cryptocurrency exchanges offers a margin rate of up to 100x (Cheng et al., 2021), that means for \$100 a trader can buy a cryptocurrency worth \$10000 to trade on margin as opposed to the regulated exchange for securities. Taking the example of the New York Stock Exchange (NYSE), the SEC (securities and exchange commission), states that the margin ratio cannot be more than 50% of the stock value. For the same \$10000 investment, the minimum margin must be \$5000. It can be higher than \$5000, but it cannot be lower than \$5000 (Dutt & Wein, 2003).

Cryptocurrencies and traditional securities vary fundamentally, the margin rates offered (2x for traditional securities and 100x for cryptocurrencies) are very different, and the fact that cryptocurrencies market run 24 hours has resulted in traders adopting different strategies to make sure that they come out on the top. Because of these differences between them, the traders don't apply the same strategies to trade them (Vo & Xu, 2017).

Since the strategies vary from trader to trader and is formalised according to the security involved (stocks, cryptocurrencies, bonds), this work will answer a few questions such as the differences in the strategies of cryptocurrency traders and traders who trade only traditional securities, what do the cryptocurrency traders feel about traditional trading; and vice versa, what do the traders who trade both prefer to trade on regular basis and what is the overall attitude of the traders towards cryptocurrencies.

The topic was chosen because there are no available research doing a direct comparison between traditional traders and cryptocurrency traders and even though there is existing literature about different strategies, they are usually in depth and focus on a single topic and don't correlate or compare with other strategies.

To achieve the said objectives an in-depth review of existing literature on these topics, known as the literature review, will be performed. It will be followed by the methodology to achieve results that may be unique. The survey was presented to traders and was completely anonymous.

In this paper we can see that most of the traders are motivated by the same factors to trade, that is, to be involved in the financial markets and earn additional money, they believe that technical analysis is quite important before initiating a trade, but they also differ in their preferences, willingness to adopt other securities. We can also see that the strategies vary according to the security they trade.

The findings of this paper will prove useful for researchers in the field of trading and securities, traders who want to modify their strategies, traditional traders who want to adopt cryptocurrency trading and vice versa and for security exchange committees around the world.

This introduction will be followed by a literature review containing an in-depth study of previous literature on related topics, methodology explaining the methods used to achieve the results of this paper, data analysis and findings which includes a comprehensive of the data collected by the surveys and detailed understanding of the answers, results which will include the basis of reaching the conclusion, followed by a conclusion, bibliography, and an annex containing all the questions asked during the survey.

2 Literature Review

This chapter will be used to analyse some of the most relevant research papers, journals and published articles that have been written concerning this topic. These articles were reviewed thoroughly before being included in the literature review. The keywords used to attain these articles were "trading", "intraday trading", "trading strategies", "cryptocurrency", "cryptocurrency trading", and "stock volatility".

The first part of the literature review will be focusing on traditional trading and the second part will be on cryptocurrency trading. Afterwards, the two will be compared and the similarities and differences will be determined.

2.1 Introduction to trading

Stock trading has existed since the 17th century with the establishment of the Amsterdam Stock Exchange (now Euronext Amsterdam) and gradually spread all around the world with almost every country having at least one stock exchange. Stock exchange facilitates buying and selling of securities between buyers and sellers (shareholders, institutional investors, and traders), the New York Stock Exchange (NYSE) being the biggest of all in terms of market capitalisation.

2.1.1 Introduction to cryptocurrencies

What is a cryptocurrency? A cryptocurrency is a digital form of currency that can be transferred, stored, and exchanged, all online without existing physically (Bhatt, 2014). Individual coin removes the barriers of nations, huge transfer fees (Franco, 2014), and privacy. As all the transactions made by a debit/credit card can be tracked and utilised to leak someone's personal information, however, cryptocurrency removes the threat of attacking someone's privacy (Bhatt, 2014). However, the grass is always greener on the other side, while there are advantages of cryptocurrencies, there are a lot of disadvantages as well, such as high volatility, unregulated by governments, scams, and funding of terrorism/drugs (Akartuna et al., 2022), etc. Cryptocurrencies are a decentralised form of assets that run on blockchain technology as opposed to our financial system which is run by banks and the central banks all around the world (Altan et al., 2019). Cryptocurrency facilitates transferring of assets using these blockchains without an intermediary.

2.1.2 Cryptocurrency trading

The cryptocurrency market has been around for over a decade now. The highest ever recorded market capitalisation for cryptocurrency was in October 2021 at \$2.9 trillion, according to CoinMarketCap.com, a website that focuses on providing up to date information about different cryptocurrencies and global market capitalisation. Different information such as the list of cryptocurrencies and their prices based on their market capitalisation, a list of highest gainers, the charts of all the cryptocurrencies, bitcoin dominance chart, etc. can be found on the website. It also warns against investing in cryptocurrencies that are fairly new and not listed on exchanges as it could possibly be a scam and traders can lose their hard-earned money.

Cryptocurrency trading is still relatively new and has gained popularity over the years. However, unlike regulated traditional markets, cryptocurrency trading doesn't have a committee watching over the trades being executed. In cryptocurrency trading, the exchanges act like exchange offices and provide a platform for the trading of cryptocurrency assets (Makarov & Schoar, 2020). The traders go to these exchanges, submit their orders, and then execute their trades. However, since the exchanges are not regulated, the price differs across all exchanges and may lead to a lower profit than originally intended.

2.2 Deep-dive into trading

The first and foremost thing required for trading is two sets of commodities, one to give and the other to receive. With the modernisation of the entire world, one of the commodities to give or receive is money (Brunnermeier & Pedersen, 2009). To maximise profits, traders require volatility, otherwise the profits would be consistent and would minimise risk if any. A trader may as well choose to sell daily-use items if the prices were to remain constant. However, since the prices of securities and cryptocurrencies fall and rise throughout the day, it allows a lot of opportunities to maximise profits for traders in the short term or the long term. Since each transaction costs a certain amount of money (Moallemi et al., 2012), the traders who are trading at a high frequency may opt for leveraged trading or margin trading, where the security is used as collateral and extra money can be borrowed against it (Brunnermeier & Pedersen, 2009). However, a full amount cannot be borrowed, SEC regulates the maximum margin to be 50% of the asset's value (Dutt & Wein, 2003). For cryptocurrencies, it can be just 10% or even less for some exchanges (Cheng et al., 2021). Margin trading plays quite an important role for the traders and the performance of the stocks. The traders avoid using up their free margin to open new positions if they already have open positions as it may lead to liquidation of their positions and they will incur losses (Wagalath & Zubelli, 2018). Liquidation because of sudden movements in the

market not only happens to traders but to institutions and big players as well (Wagalath & Zubelli, 2018). It is always riskier to trade with margin; however, it also offers higher returns.

2.3 Different types of trading and orders

Traders who trade at a very high frequency are essential for the market as they provide liquidity, reduce the spread of the bid and ask prices and reduce volatility (Sun et al., 2014). Traders trading at a very high frequency are now competing with algorithmic trading where AI is trading to increase the effectiveness of the trade, which reduces the optimal profit maximisation (Sun et al., 2014). To maximise profits, traders must follow certain strategies to know the right price to buy or sell a security or a cryptocurrency. Trading is not only done by informed traders, but the market also has a lot of uninformed traders who are willing to take a risk. Uninformed traders are traders who don't possess any information about the security, that they want to trade, but are willing to trade because of their personal choices (Choi, 2019).

Traders can opt to go for market orders that provide immediacy or go for limit orders where they name their price and, if another trader is willing to buy/sell at that price, the trade will be executed. However, bearing the risk that the order may not be executed. If a trader has an unfulfilled limit order and is trading on margin, the trader may be liable to pay interest on the margin as imposed by the dealer (Harris & Hasbrouck, 1996). Hence, deciding which type of order to execute is another important factor in the execution of the trade.

Apart from market and limit orders, some orders are fulfilled when they reach an amount set by the trader beforehand. They are somewhat similar to limit orders; however, they are used to either take profits or minimise losses, i.e., stop-loss orders. These orders help traders to reach predetermined goals and help minimise losses. This is also called the disposition effect (Fischbacher et al., 2017). The traders set an amount right after buying or selling (shorting) a security. For example, a trader buys a cryptocurrency for \$10, then sets the take-profit at \$15 and stop-loss at \$7. If the price of the said cryptocurrency falls to \$7, the trader loses \$3 and prevents further losses when he wasn't paying attention. If the price of the cryptocurrency goes to \$15, the asset is sold for \$15, and the trader makes a profit of \$5. The drawback of these orders is that if the asset bounces back from \$7, the trader could've minimised his loss, and if the cryptocurrency goes beyond \$15, the trader can miss out on potential profits.

A past study (Odean, 1998) shows that traders who don't set stop losses tend to hold on to their positions with losses for much longer than they would with a trade that is profitable because the traders, sensibly or insensibly, believe that the positions with losses will surpass their profitable positions. According to the aforementioned study, the traders are unwilling to sell their positions with losses not because they're defiant of accepting their losses but because of their belief that the asset that is losing

today will outperform the asset that is winning today (Odean, 1998). The study also depicts that most of these traders are uninformed traders.

2.4 Tools for Trading

Regardless, of whether informed or not, traders predict future prices and tend to follow some sort of strategy before they decide to invest in an asset. These predictions can be based on numerous factors. One of these factors is historical data. The past data is taken into account and a future prediction can be made based on this particular data (Cheng et al., 2016). The historical data can be analysed in a lot of different ways such as Artificial Neural Networks (ANN), Support Vector Machines (SVM), and Probabilistic Neural Networks (PNN) (Kara et al., 2011). ANNs are data-driven and self-adaptive methods, that can generalise data and are nonlinear. That means that ANNs can adapt according to the data provided, they can provide more accuracy and can be understood easily (Zhang et al., 1998). Even though linear data can be explained in detail, it is based on presumptions as the data in the current world is nonlinear (Zhang et al., 1998). When we investigate SVMs, SVMs estimate the regression using a set of data that is linear, mainly defined in high dimensional space, to achieve complex results. SVMs are also used to lessen the risk by predicting patterns and are also used to solve nonlinear data that is available (Tay & Cao, 2001). PNN focuses on probabilities of return on investment. No matter which asset is chosen, return is probable, and PNN capitalises on this (Leung et al., 2000).

2.4.1 Technical Analysis and Indicators

Another strategy traders use is to perform a technical analysis using technical indicators. Technical analysis is preferred by traders because it highlights the use of geometry and pattern recognition as opposed to dealing with complex numbers at all times in fundamental analysis (Lo et al., 2000). The reason technical analysis is more widely accepted is due to the human nature of recognising shapes and patterns and being more comfortable around something someone already knows (Lo et al., 2000). An in-depth technical analysis using 10 different technical indicators was performed (Kara et al., 2011), some of the technical indicators used were Simple Moving Average, Weighted Moving Average, Moving Average Convergence Divergence (MACD), Relative Strength Index, etc. In this study, the technical indicators considered are Moving Averages (SMA/EMA), MACD, RSI, and Candlestick Charting.

2.4.2 Technical Indicators - Moving Averages

A moving average is a technical indicator that shows the average price of an asset over the period *n*. For example, a 200-day moving average will show the average price of the asset over 200 days (Gençay, 1996). The charts are divided into either a buy or a sell position depending on the position of the moving averages (Brock et al., 1992). The trader benefits from observing the different positions of the moving averages and acting accordingly. When we assume there are two moving averages, the shorter one, L_1 and the longer one, L_2 . When L_1 rises above L_2 then it is a buy signal and when L_1 drops below L_2 it is a sell signal (Kwon & Kish, 2002).

This finding has been depicted by the following chart:



Figure 2.1: Buy and sell signals using the Moving Average (Source: Investopedia.com)

The arrows show the optimal time to buy and to sell where the price line is L_1 , and the blue line is L_2

2.4.3 Technical Indicators – MACD

Moving Average Convergence Divergence (MACD) is another technical indicator that is used to predict stock prices. MACD also relies on Moving Averages, but it relies on exponential moving averages (EMA) rather than simple moving averages. The longer EMA is subtracted from the shorter EMA (Chong & Ng, 2008). When the signal line crosses the MACD line from below the signal is buy and when the signal line cuts the MACD line from above the signal is sell (Chong & Ng, 2008). We can see the depiction of the MACD line in the figure below:



Figure 2.2: Buy and sell signals using the MACD indicator

(Source: Investopedia.com), (green point = buy and red point = sell)

2.4.4 Technical Indicators – RSI

The next indicator to be considered is the Relative Strength Index (RSI). The RSI can only move between the numbers 0 and 100. RSI for 14 days is the most used by traders. When the RSI drifts above 70, the security is considered to be overbought and when the RSI dips below 30, the security is considered to be oversold. 50 can be labelled as the midpoint, because when the RSI is above 50 it is considered to be a bullish signal and under 50 is a bearish signal (Chong & Ng, 2008).

We can see a depiction of RSI in the following chart:



Figure 2.3: A chart depicting the overbought and oversold states considering the RSI

(Source: Investopedia.com)

2.4.5 Technical Indicators – Candlestick Charting

One of the most commonly used technical tools is the candlestick chart. The candlestick chart shows the movement of price throughout the period depicted. Each candlestick shows the specific time frequency chosen for the chart. For example, a one-day chart means that one candlestick will show the movement of price within one day. This one-day candle will show the opening price, the closing price, the highest price, and the lowest price. Within the timeframe of one day, the price would have moved countless times (Marszałek & Burczyński, 2014). Candlesticks are usually shown in two colours, one to show the increasing price and the other to show the decreasing price. For example, let's assume the opening share price of a company is \$10 and the closing price is \$15, since there is an increase in the price, the candlestick showing the increase will be portrayed on the chart. The range is from the top to the bottom apart from the body of the candle. These shadows are called wicks or tails, they can also be called upper shadow and lower shadow (Thomsett, 2017).

Most of cryptocurrency trading applications show their charts in the primary colours of green and red. Green depicts the increase and red shows the decrease. The timeframes can differ according to the preference of the trader and the frequency on which the trader wants the data.

The following figure shows the characteristics of a candle stick that is used in the candlestick charting:



Figure 2.4: Attributes of a candlestick

[Source: (Thomsett, 2017)]

2.4.6 Fundamental Analysis

Technical analysis is widely used to predict the future value of an asset. However, there is another analysis that traders employ, which is called the fundamental analysis. Fundamental analysis is usually

applied for long-term trades, and not for short-term trading. The fundamental analysis utilises all the information available about an asset, available publicly, to determine the fair price of that asset. Fundamental analysis is the basis for the forecast of future prices (Oberlechner, 2001).

2.5 Strategies in Trading

2.5.1 Sentiment of traders based on news and social media

News trading is when a trader relies on the news and reacts according to it. A trader would prefer buying a stock that catches the attention of the trader but doesn't have that much effect while selling. Moreover, this attribute is different from institutional investors. Firstly, institutional investors usually have trouble selling the stocks because their quantity is comparatively much higher than an individual trader (Barber & Odean, 2008). And secondly, institutional investors specify their lists to a limited number of stocks that meet their objectives, unlike individual traders who rely more on their own analysis and attention.

When the traders decide to invest in a security, they have a lot of options available, they can narrow their list down, however, it is extremely hard to analyse each security that is available as it requires a lot of time and opportunity cost. Hence, they are drawn to the ones that have recently been mentioned, be it on the news or from a person. Usually, the securities that perform extremely well or badly are heard on the news. Traders are usually tilted towards these securities because they catch the attention of the traders (Odean, 1999). Buying a security is much harder for a trader than selling one because first, the trader must select a security, then perform the analysis and then purchase it. However, when it comes to selling, it only applies to the securities the trader owns and it doesn't apply to other securities unless the trader decides to sell short (Odean, 1999)

The trading of a firm's securities usually increases when the firm is mentioned in the news. But it depends on the relevance of the news as well, for example, a piece of news that has no impact on the future earnings of the firm will most likely be ignored by the traders. On the other hand, if some news has a major impact on the future earnings of the firm, it will be acted upon by the traders and will lead to an increase in the volume of the security. If the trading volume is up, it is obvious that more than a handful of traders are paying attention to the stock. To add the cherry on top, if a few investors move large volumes of these stocks by themselves, the other traders will follow in their footsteps (Barber & Odean, 2008).

Traders don't only rely on news from certified sources, they can rely on rumours and suggestions of other traders on social media platforms (Phillips & Gorse, 2017). Even though insider trading is strictly forbidden, people can share their technical analysis and feelings with other traders. However, since the notion is not published officially by companies and by certified news sources, it can lead to a lot of misinformation. However, with the growth of social media websites, traders tend to believe other people's notions and uninformed traders usually are the ones to suffer (Mendel & Shleifer, 2012).

Sentiments can affect the calculations of the traders, both informed and uninformed, and they act upon them accordingly. Sentiments are quite hard to track and if every trader's opinion was to be considered, it'd be extraordinarily expensive. An example of Twitter was taken and, the example explained how tweets from people affect how the market reacts (Bollen et al., 2011). These sentiments are an important factor in making the market move forward and the market reacts to the sentiments of the traders (Kurov, 2008). For example, if the majority of the traders are bullish, they would buy stocks, or long it and if the traders are bearish most of the traders would sell their stocks or short it. However, noise traders tend to trade more when the market is bullish than bearish (Kurov, 2008).

However, with the increase in social media users and constant news, credible or not (Castillo et al., 2011), more and more traders and the general population have tilted towards the adoption of cryptocurrencies as a means of investment. Reddit has a dedicated subreddit for cryptocurrency namely r/cryptocurrency (Glenski et al., 2019) where cryptocurrency enthusiasts share their information, feelings, and guidance with other users of the website. This information may or may not have credibility as it comes from anonymous users who are not financial advisors.

Another impact of social media on trading can be seen in the most recent case of GameStop, where one Reddit user claimed that Fidelity Investments was massively short-selling shares from GameStop and that if everyone decided to call or buy the shares, it will lead to huge profits. The said user provided some financial analysis that could or couldn't be confirmed on the subreddit called r/wallstreetbets where traders share their achievements, advice, information, etc. just like r/cryptocurrency. This led to a massive jump in the price of the stock from \$16 to \$347 within one month (Umar et al., 2021). With the ease of access to information with social media and a lot of people claiming to have exceptional knowledge, traders can have access to fast information, not necessarily reliable, and know the sentiments (Kuhnen & Knutson, 2011) of other traders and people which can help them devise a strategy.

2.5.2 Day trading and its strategies

Day trading is when a trader decides to open and close the position (buy or sell) on the same day. If the trade is carried over a day, the trader must pay a small fee if the trader is trading on margin. To avoid this, a day trader prefers to open and close the position on the same day. Day traders follow different strategies and can be subdivided into different categories:

i. News Traders: As the name suggests, news traders rely on the news to make their trades. If the news is positive, the traders will buy (or go long), and if the news is negative, the traders will sell (or go short). News traders can rely on various sources such as news channels, Twitter, Facebook, Reddit, etc. Hence, news plays a vital part in their decision-making (Foucault et al., 2016). News traders can also be subdivided further, the ones who speculate and are the first ones to react, the others who follow the speculators. The speculators can also be called market makers as they are the first ones to react. News traders also speculate on the decisions made by the SEC (in the case of the US) and other respective

commissions that look over the stock markets in other countries (Rosa, 2011). The same can be said for cryptocurrencies, if the developer of a cryptocurrency announces something exciting, the price of the cryptocurrency can soar high and vice versa. For example, in the summer of 2021, the cryptocurrency market underwent a huge crash because of a news report which was a result of the COVID-19 pandemic intensifying and the crackdown on the cryptocurrency market by the Chinese government (James & Menzies, 2022). The news spread like wildfire and the price of Bitcoin; the most dominant cryptocurrency fell from \$58,000 (approx.) to \$35000 (approx.).

ii. Momentum Traders: Momentum traders are traders who rely on past data and predict the momentum of the prices based on their analysis. Unfortunately, it turns out to be a simplistic analysis and doesn't provide any concrete direction except the predictability of their technical analysis. A momentum trader who has been analysing the price from an earlier period of n-3 and n-2, decides to analyse the momentum at n-1 and purchases the security at n, while the momentum of the price is still going up, will be earning profit at the time n+1. However, this will lead to an increase in momentum and traders who purchase/sell at n+1 will incur a loss if the momentum doesn't continue (Hong & Stein, 1999). If we factor in that these traders, who bought at n+1, decide not to sell, they will eventually make higher profits than the traders who sell at n+1 because when the momentum will catch up again, the prices will gain further (Jegadeesh & Titman, 2001). The period n can vary depending on the trader's preferences, for example, if the trader considers the chart of 15 minutes and starts trading at 12:00 p.m., then n-1 will be 11:45 a.m. and n+1 will be 12:15 p.m.

iii. Contrarian Traders: As the name suggests, the traders who follow this strategy is going contrary to the market trend. The followers of the contrarian strategy believe that the market is only driven by greed and fear of buying and selling respectively. So, the traders go against the trend and sell when other traders are buying and buy when the other traders are selling. This strategy has its drawbacks and was prominent before the 1950s. It can be called the exact opposite of the momentum trading strategy (Conrad & Kaul, 1998). This type of strategy is also called the reversal strategy and is widely debated as a risky trading strategy.

iv. Breakout Traders: Breakout traders only enter a trade when the price and volume of the security surpass a certain level, based on their technical analysis. Usually, the indicators that are involved in the technical analysis are the Simple Moving Average (SMA) and the Relative Strength Index (RSI) (Tsantekidis & Tefas, 2021). For shorting securities, it goes the other way around, if the price and volume fall below a certain level, the security can be shorted. For example, if a security's RSI goes above 70 it is considered to be overbought and the trader can sell and if the RSI of the security falls below 30, it means that it is oversold, and the trader can opt to buy (Tsantekidis & Tefas, 2021).

v. Scalping Traders (scalpers): Scalpers are traders who trade for a very brief period. They react very quickly to the slightest movement in the price or volume of the asset. They buy and sell instantaneously to take advantage of every price movement. Scalpers are considered market makers who provide liquidity to the market by making trades frequently. They are also a threat to other market

makers as they react to price changes more often than other traders (Petrella, 2006). With high-frequency trading being adapted and software that can be taught to react to price changes to maximise profits and minimise losses, scalping has become even more popular. The average time it takes to execute a market order is 300 milliseconds (Ding et al., 2014). As a result, it is becoming even more challenging for other market makers to keep up with the scalpers. One of the other objectives of the scalping strategy involves having a favourable queue to maximise profit.

vi. Swing traders: Swing trading is somewhat similar to scalping, however for a longer period. Instead of selling instantaneously, the trader will wait for a certain predetermined amount and react to price changes accordingly. Swing trading, however, is not limited only to intraday trading and can last for a longer period, for example, a week. Swing traders make the price more informative for other traders (Gallagher et al., 2013) as they follow a predetermined pattern based on their analysis.

2.6 Fundamental differences between cryptocurrencies and traditional securities

Cryptocurrency trading differs from traditional trading. One of the most notable differences is the absence of a legislative body that oversees the trades. Hence, it is unregulated and the dealers are the price makers (Eross et al., 2019). Even though cryptocurrency doesn't have as much public information as traditional trading such as stocks, forex, etc., the price of cryptocurrency still rises and falls all the time. It can be said that early cryptocurrency traders and inexperienced investors were influenced by other traders tilting towards the cryptocurrency dynamics, which has been described as a herding behaviour or herd investing (Bouri et al., 2019). Another major difference is the trading hours, cryptocurrency market runs all around the clock, i.e., 24 hours a day, 365 days a year (Eross et al., 2019), however, the New York Stock Exchange (NYSE) runs from 9:30 a.m. to 4 p.m. and it is closed on weekends. On certain American holidays, the market is either closed or is closed early (source: https://www.nyse.com/markets/hours-calendars).

Cryptocurrency has known to be more volatile and offers much more margin to traders. This penalty is often paid by uninformed and inexperienced traders who often take the margin rate and lose their money. Cryptocurrency exchanges offer futures contracts without expiration, also called "perpetual contracts" and the traders pay (or receive) a fee every 8 hours. Traders can close deals between the funding fee time to avoid paying the funding fee, the times for funding fee differ between different cryptocurrency exchanges and different cryptocurrencies (De Blasis & Webb, 2022). For example, if a lot of people are longing a coin, the funding fees for this coin will be higher in comparison to a less popular coin. However, when traditional trading is considered, the overnight margin rate is decided by the broker and the trader must deposit a minimum of \$2000 as maintenance margin as required by the Securities Exchange Commission (SEC) (source: https://www.sec.gov/rules/sro/ny9947n.htm)

3 Research Methodology

3.1 Research Strategy and Data Collection

The goal of this dissertation is to find whether the day traders who trade only cryptocurrency behave in a similar manner to the day traders who trade only traditional securities (stocks, futures, options, etc.). But since some traders, trade both cryptocurrencies and traditional securities, a separate question pool was created to understand their perspective on both cryptocurrencies and traditional securities to be used a benchmark for comparison.

To gather this data, an extensive survey was conducted using Google forms and was aimed only at traders because the questions were quite technical. This survey was conducted using online platforms and was shared only in groups and forums specific to trading. The questions asked separately were to understand the different perspectives of the traders and how they thought of the other trading. The questions asked to traders who traded both, were to understand whether they had a preference and how they thought individually of cryptocurrency trading and traditional trading.

3.2 Research questions

The survey consisted of the following questions.

Some questions were similar for all the traders, such as (Not in order):

- 1. Do you trade in cryptocurrency or traditional securities (stocks, bonds, etc.)?
- 2. How long have you been trading?
- 3. Do you trade full-time or part-time?
- 4. What's your average income (monthly) from trading?
- 5. Do you trade on margin (futures) or do you purchase the securities at full price?
- 6. What's the maximum margin you trade at?
- 7. Are you risk-averse or an aggressive trader?
- 8. Do you have more winning trades?
- 9. What's your average return on each trade?
- 10. Which trading do you think is more profitable?
- 11. Which trading do you think is more secure?
- 12. Do you apply both technical analysis and fundamental analysis?
- 13. Which technical indicators do you apply, if any?
- 14. What kind of strategy do you follow?
- 15. How would you describe your experience with trading?
- 16. What's your opinion on the future of traditional trading?
- 17. What's your opinion on the future of cryptocurrency trading?
- 18. Cryptocurrency exchanges offer up to 125x margin rates, do you think it is inviting or risky?

- 19. Do you think cryptocurrency market needs more regulations?
- 20. What was the reason you started trading?

Some questions were asked only to cryptocurrency traders, traditional traders and traders who traded both.

Cryptocurrency Traders:

- 21. Why did you venture into cryptocurrency trading?
- 22. What kind of trading do you do on cryptocurrency?
- 23. Would you switch to traditional trading?
- 24. Do you think your strategy and analysis would change if you were to trade traditional securities?

Traditional Traders:

- 25. Would you call yourself a day trader?
- 26. What kind of securities do you buy?
- 27. Would you switch to cryptocurrency trading?
- 28. Do you think your strategy and analysis would change if you were to trade cryptocurrencies?

The traders who traded both:

- 29. What kind of securities do you buy?
- 30. Which one do you prefer to trade on regular basis?
- 31. Which one is easier to trade?
- 32. Do you use the same strategy when you trade cryptocurrencies as traditional securities?

Questions asked with other samples:

- 21. Why did you venture into cryptocurrency trading?
- 25. Would you call yourself a day trader?

4 Data Analysis and Findings

The survey was conducted from the 4^{th} of June 2022 till the 15^{th} of August 2022 and had 186 respondents.

The question asked to separate the respondents was: **Do you trade in cryptocurrency or traditional** securities (stocks, bonds, etc.)?

Out of the 186 respondents, 7% traded only in cryptocurrency, 54.8% traded only in traditional securities and 38.2% traded both. The numbers are depicted in the table below:

Table 4.1: Q. 1 "Do you trade in cryptocurrency or traditional securities (stocks, bonds, etc.)?"

Grand Total	186			
Traditional Securities	102			
Cryptocurrencies	13			
Both	71			
Do you trade in cryptocurrency or traditional securities (stocks, bonds, etc.)? COUNTA				

The 20 questions that were asked to all the respondents regardless of their trading category will be assessed together. Some of the questions had multiple correct answers and some of the questions included an option to answer their own input, the individual answers have been replaced with "Others" for the data quality, however, will be included in the appendices.

Q.2 How long have you been trading?

This question was asked to know the experience of the traders and understand their preferences.

Most of the cryptocurrency traders were relatively new, 61.5% had been trading for 6 months to 2 years.

Whereas the traders for traditional trading were distributed in a manner where approximately 10% had less than 6 months of trading experience, 37% had been trading for 6 months to 2 years and 53% had been trading for more than 2 years.

The traders in the category of both cryptocurrency and traditional trading had an even distribution also. 35% had been trading for 6 months to 2 years, 58% had been trading for 2 years or more while only 7% were new traders who had an experience of less than 6 months, which depicts that trading both requires skill and experience.

The numbers have been displayed in the tables below, in order, 1st cryptocurrency, 2nd Traditional trading and 3rd Both:

Table 4.2: Q2	" "How long	have you	been	trading?'
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How long have you been trading?	COUNTA	How long have you been trading?	COUNTA	How long have you been trading?	COUNTA
Less than 6 months	2	Less than 6 months	10	Less than 6 months	5
6 months - 2 years	8	6 months - 2 years	38	6 months - 2 years	25
5 years +	1	5 years +	28	5 years +	19
2 years - 5 years	2	2 years - 5 years	26	2 years - 5 years	22
Grand Total	13	Grand Total	102	Grand Total	71
(1)		(2)		(3)	

Findings: As we can see from the table above, most of the traders in the cryptocurrency sample are relatively new, with an experience of less than 2 years, while in the sample of traditional traders and the sample of both, the traders are evenly divided if we take 2 years as a pivot, we can see more experienced traders in these samples.

It can be summarised that the cryptocurrency traders are less experienced compared to the other samples.

Q.3 Do you trade full-time or part-time?

This question was asked whether the traders relied solely on trading to earn a living or were they relying partially on trading.

For cryptocurrency traders, only 7% of the sample traded full-time, the rest 93% were trading parttime, meaning that they either had other jobs or education that they were pursuing.

For traditional trading, approximately 19.5% were trading full-time while 80.5% were trading parttime, proving that traditional trading could serve as a livelihood for some people.

When we look at traders who traded both, approximately 17% were trading full-time while 83% were trading only part-time.

The numbers have been displayed in the tables below, in order, 1st cryptocurrency, 2nd Traditional trading and 3rd Both:

Do you trade full-time or part-time?	COUNTA	Do you trade full-time or part-time?	COUNTA	Do you trade full-time or part-time?	COUNTA
Full-time	1	Full-time	20	Full-time	12
Part-time	12	Part-time	82	Part-time	59
Grand Total	13	Grand Total	102	Grand Total	71
(1)		(2)		(3)	

Table 4.3: Q.3 "Do you trade full-time or part-time?"

Findings: Most of the traders from all the samples relied partially on trading as a profession and a sole way of earning money. However, the tilt towards trading traditional securities full time was much

more than cryptocurrencies. The limitation for this is that the sample who traded cryptocurrencies was limited to only 13 candidates.

Q.4 What's your average income (monthly) from trading?

This question was asked to know how much money on average was the sample making from the trading activities.

Approximately 70% of the cryptocurrency traders' sample was earning \leq \$500 a month, 23% was earning between \$500 to \$2000 a month while only 7% was earning between \$2000 to \$10000 a month.

Meanwhile, for traditional traders, 44% was earning \leq \$500, while 36% was making between \$500 to \$2000, approximately 12% was making between \$2000 to \$10000 and 8% was making more than \$10000 a month.

On the other hand, 48% of the traders who were trading both, were making \leq \$500, 27% were earning between \$500 to \$2000 a month, 12.5% were earning between \$2000 to \$10000 while, interestingly, 12.5% were earning more than \$10000 a month.

The numbers have been displayed in the tables below, in order, 1st cryptocurrency, 2nd Traditional trading and 3rd Both:

Table 4.4: Q.4 "What's your average income (monthly) from trading?"

What's your average income (monthly) from		What's your average income (monthly) from trading?	COUNTA	What's your average income (monthly) from trading?	COUNTA
trading?	COUNTA	\$500 ≤ \$2000	37	\$500 ≤ \$2000	19
\$500 ≤ \$2000	3	\$2000 ≤ \$10000	12	\$2000 ≤ \$10000	9
\$2000 ≤ \$10000	1	\$10000+	8	\$10000+	9
≤\$500	9	≤\$500	45	≤\$500	34
Grand Total	13	Grand Total	102	Grand Total	71
(1)		(2)		(3)	

Findings: The majority of all the samples was making less than or equal to \$500 a month, however, for the sample of cryptocurrency traders, this portion is significantly higher when we compare it to the other samples. Approximately, a third of the samples of traditional traders and traders who traded both were able to make between \$500 and \$2000. None of the traders in the cryptocurrency sample were making more than \$10000 a month, however, traders who traded traditional securities and traders who traded both were able to cross the threshold.

The traders who traded cryptocurrency were relatively new (see Q 1) and might have less capital to invest in comparison to the traditional traders. (Assumption)

The percentage of traders who made more than \$10000 in the sample that traded both, was higher than the sample of traditional traders. If we take Capital Asset Pricing Model (CAPM) as an example, the companies can maximise their profits by utilising debt (Dempsey, 2013), and if we use the same analogy, the traders might be able to maximise their profits by trading in both. (Assumption)

Q.5 Do you trade on margin (futures) or do you purchase the securities at full price? Q.6 What's the maximum margin you trade at?

These questions were asked to know if the traders preferred buying the securities at their full price or preferred trading on margin and to know the rate of the margin. A higher rate means higher risk and can potentially lead to higher rewards.

46% of the traders who only traded in cryptocurrency were not using margin to trade while the other 54% was trading on margin, whether occasionally or always. 5x - 20x was the most popular option among cryptocurrency traders, with 58% of the sample (excluding N/A) opting for that. The numbers are shown in the tables below:

Table 4.5: Q.5 and Q.6"Do you trade on margin (futures), or do you purchase the securities at full price? What's the maximum margin you trade at?" for cryptocurrency sample

Do you trade on margin (futures), or do you purchase the security at its full price?	COUNTA	What's the maximum margin you trade at?	COUN
I don't trade on margin	6	N/A	6
I trade on margin only	3	5x - 20x	4
Sometimes I utilise margin, otherwise I		3x - 5x	1
purchase the securities	4	20x - 50x	2
Grand Total	13	Grand Total	13

51% of the traditional traders were not utilising margin, while the other 49% were using margin. However, 3 of the people in the sample chose N/A for margin, we can assume that they were utilising less than 3x margin. 58% of the traditional traders' sample (excluding N/A) opted for a 3x - 5x margin rate.

Table 4.6: : Q.5 and Q.6 "Do you trade on margin (futures), or do you purchase the securities at full price? What's the maximum margin you trade at?" for traditional traders' sample

Grand Total	102	Grand Total	102
purchase the securities	26	20x - 50x	4
Sometimes I utilise margin, otherwise I		3x - 5x	29
I trade on margin only	24	50x - 125x	4
	52	5x - 20x	10
l don't trade on margin	52	N/A	55
Do you trade on margin (futures), or do you purchase the security at its full price?	COUNTA	What's the maximum margin you trade at?	COUNTA

Approximately 62% of the traders who traded both, did not utilise margin, while the other 38% were using margin. 2 of the people who chose no utilising margin still chose a margin range, we can assume it to be a standard error. The most popular margin rate for this sample was 3x - 5x with 24% of the traders opting for this option.

Table 4.7: Q.5 and Q.6 "Do you trade on margin (futures), or do you purchase the securities at full price? What's the maximum margin you trade at?" for both traders' sample

Do you trade on margin (futures), or do you purchase the security at its full price?	COUNTA	What margi	's the maximum in you trade at?	COUNTA
I don't trade on margin	44	N/A	0.	42
I trade on margin only	7	50x - 2	125x	3 6
Sometimes I utilise margin, otherwise I	20	3x - 5	x	17
	20	20x -	50x	3
Grand Total	71	Gran	d Total	71

Findings: we can observe that most of the cryptocurrency traders only chose to trade without any margin or low margin, the main reason could be the high volatility of cryptocurrencies which can make the trading activities very risky.

Regarding traditional traders, half of the sample doesn't trade on margin and another half trades on margin mainly between 3x to 20x. However, few aggressive traders trade above 50x which is considered very risky, but traditional securities tend to be comparatively stabler than cryptocurrencies.

When we look at the sample of traders who traded both, more than half of the sample didn't utilise the margin, however, when we look at the margin they utilise, it is much more varied than the other two samples. This could be because they utilise different margin rates for different securities.

Q.7 Are you risk-averse or an aggressive trader? Q.8 Do you have more winning trades?

These questions were asked to understand the trading styles of different samples and to know whether that style resulted in profits.

61.5% of the cryptocurrency sample said that they were risk-averse traders, meaning they'd prefer to avoid risk as much as possible. Whereas 7% claimed to be an aggressive trader. The other 31.5% said it depended on the situation. Interestingly, 77% said that they had more winning trades, meaning, they made a profit, albeit small. While 23% said they lost most of the trades.

Table 4.8: : Q.7 and Q.8" Are you risk-averse or an aggressive trader? Do you have more winning trades?" for cryptocurrency sample

Are you a risk averse or an aggressive trader?	COUNTA	Do you have more winning trades?	COUNTA
Aggressive Risk-averse	1 8	Yes	10
Situational, sometimes risk-averse, sometimes aggressive	4	No	3
Grand Total	13	Grand Total	13

Meanwhile, only 23.5% of traditional traders described themselves as risk-averse while 22.5% described themselves as aggressive traders. The other 54% called themselves situational traders. 67.5% said that they had more winning trades while the other 32.5% said that they had suffered more losses than profits.

Table 4.9: Table 4.10: Q.7 and Q.8" Are you risk-averse or an aggressive trader? Do you have more winning trades?" for traditional traders' sample

Grand Total	102	Grand Total	102
Situational, sometimes risk-averse, sometimes aggressive	55	No	33
Risk-averse	23	Yes	69
aggressive trader?	COUNTA	winning trades?	COUNTA
Are you a risk averse or an		Do vou have more	

When we look at the traders who traded both, only 17% claimed to be risk-averse, while 25% claimed to be aggressive. 58% said that they were situational traders. 66% of the traders in this sample said they had more trades where they made money and 34% said in most of the trades, they'd lost money.

Table 4.10: Table 4.11: Q.7 and Q.8" Are you risk-averse or an aggressive trader? Do you have more winning trades?" for both traders' sample

Grand Total	71		Grand Total	71
Situational, sometimes risk-averse, sometimes aggressive	41	:	No	24
Risk-averse	12		Yes	47
Aggressive	18		winning trades:	
Are you a risk averse or an aggressive trader?	COUNTA		Do you have more winning trades?	COUNTA

Findings: For the cryptocurrency traders' sample, most of them are risk-averse traders, and most of them have more winning trades. Therefore, we can say, non-aggressive traders, make more winning trades. For the traditional traders' sample, half of the traders are doing situational trading, as the result analysed before, traditional traders are mostly experienced and almost 70% of them have more winning trades. Among the sample of both, also 70% make more winning trades, whereas only 25% trade aggressively. In general, less aggressive traders tend to make more winning trades and we can assume that experience plays a key part in it.

Q.9 What's your average return on each trade?

This question was asked to know how much on average were the traders earning from each trade. This question was asked to compare the experience and style of trading with the return on each trade.

For this question, the most popular answer among the cryptocurrency traders was 0-10% which was chosen by approximately 38.5% while some, 23%, admitted to having \leq -20% return. 15.5% chose the option of -20% – 0%, another 15.5% chose the option of 10% – 20%. While 7.5% chose the option of 20% – 40% return.

For traditional traders, the most popular option was also 0% - 10% which was opted for by 48% of the sample. The second most popular option for the traditional traders was 10% - 20% which was chosen

by 24.5% of the sample. 12.75% said they had a return of \leq -20%. Only 3% chose the option of -20% – 0%. While 7.75% said they made between 20% and 40%, the other 4% claimed that they made more than 40% return on each trade.

For the sample of traders who chose the option of both, the most popular option was again 0% - 10%, which was chosen by 35% of the sample. 21% said they had a return of 10% - 20% and 19% claimed to make between 20% - 40% on each trade. 12.5% said they made between -20% - 0% on each trade. 3% said they made $\leq -20\%$ on each trade and interestingly, 8.5% claimed to make more than 40% on each trade.

The numbers have been displayed in the tables below, in order, 1st cryptocurrency, 2nd Traditional trading and 3rd Both:

Table 4.11: Q.9 "What's your average return on each trade?"

What's your average return on each trade?	COUNTA	What's your average return on each trade?	COUNTA	What's your average return on each trade?	COUNTA
-20% - 0%	2	-20% - 0%	3	-20% - 0%	9
<-20%	3	≤-20%	13	≤-20%	2
<u> </u>	5	0% - 10%	49	0% - 10%	25
0% - 10%	5	10% - 20%	25	10% - 20%	15
10% - 20%	2	20% - 40%	8	20% - 40%	14
20% - 40%	1	40% +	4	40% +	6
Grand Total	13	Grand Total	102	Grand Total	71
(1)		(2)		(3)	

Findings: When we look at the sample of cryptocurrency trading, the average return on trade is mostly less than 20% return, while more than a third of the sample loses money on average.

While for traditional traders only a few traders tend to lose money, on average, on each trade, and most of the sample earns between 0-20% return on each trade. However, some traders make more than 20% return on each trade.

In the sample for both, it's somewhat similar to the sample of traditional traders, only a few traders lose money on average on each trade, while the majority makes 0-20% return on each trade. However, a higher percentage of traders make more than 20% return on each trade when compared to other samples.

We can refer to the findings of experience, aggressiveness and monthly income from trading that mixing and matching the securities can play a key part in the outcome of trading. Since the sample of traditional traders and the sample for both have more experience traders, they tend to be more profitable in each trade.

Q.10 Which trading do you think is more profitable? Q.11 Which trading do you think is more secure?

These questions were asked to know whether the samples were biased in their preference of trading and to know their opinion about the profitability and security of the different trading.

77% of the sample choosing cryptocurrency trading said that cryptocurrency trading is more profitable than traditional trading, and the other 23% said otherwise.

When asked about the security of trading, 77% of the sample believed that traditional trading was more secure in comparison to cryptocurrency trading.

Table 4.12: Q.10 and Q.11 "Which trading do you think is more profitable? Which trading do you think is more secure?" for cryptocurrency sample

Which trading do you think is more profitable?	COUNTA
Cryptocurrency trading	10
Traditional trading	3
Grand Total	13

Which trading do you think is more secure?	COUNTA
Cryptocurrency trading	3
Traditional trading	10
Grand Total	13

Findings: Most of the sample of cryptocurrency think cryptocurrency trading is more profitable, it can be assumed that they have been making good profit from it. And 3 people, who most likely have realised loss in cryptocurrency trading, and think traditional trading is more profitable. Moreover, we can assume that there is a strong bias because they are trading only in cryptocurrencies.

But when asked about the security of trading, most of the sample believes that cryptocurrencies are less secure to trade, and traditional securities are more secure. This could be referred to regulations, volatility, and Ponzi schemes that a few cryptocurrencies have run.

When the traditional trading sample was asked the same question, only 14.5% said that cryptocurrency trading was more profitable while the other 85.5% said that traditional trading was more profitable.

However, when asked about the security of the trading, 97% of the sample said traditional trading was more secure while the other 3% said that cryptocurrency trading was more profitable.

Table 4.13: Q.10 and Q.11 "Which trading do you think is more profitable? Which trading do you think is more secure?" for traditional traders' sample

Which trading do you think is more profitable?	COUNTA	Which trading do you think is more secure?	COUNTA
Cryptocurrency trading	15	Cryptocurrency trading	3
Traditional trading	87	Traditional trading	99
Grand Total	102	Grand Total	102

Findings: Most of the sample for traditional traders, believes that traditional trading is more profitable, however, there are a few traders who acknowledge the potential of cryptocurrencies and believe that cryptocurrencies are more profitable. We can again assume that there is a strong bias and traditional traders feel more comfortable trading in their own forte.

When asked about the security of the trades, the traders almost unanimously said that traditional trading was more secure. We can refer to less volatility, regulations, and a factor of trust in the securities they trade.

In the sample for both when asked about the profitability of trading, 48% believed that cryptocurrency trading was more profitable and 52% said that traditional trading was more profitable.

Regarding the security of the trading, only 10% of the sample said cryptocurrency trading was more secure, the other 90% said that traditional trading is more secure.

Table 4.14: Q.10 and Q.11 "Which trading do you think is more profitable? Which trading do you think is more secure?" for both traders' sample

Which trading do you think is more profitable?	COUNTA	Which trading do you think is more secure?	COUNTA
Cryptocurrency trading	34	Cryptocurrency trading	7
Traditional trading	37	Traditional trading	64
Grand Total	71	Grand Total	71

Findings: The traders in the sample of both, were almost equally divided when asked about the profitability, one half said cryptocurrency was more profitable while the other half said that traditional trading was more profitable. This is quite interesting as there is very little bias as the sample traded both. When asked about security, the majority again said that traditional trading was more secure.

Q.12 Do you apply both technical analysis and fundamental analysis?

This question was asked to know what the samples based their trades on, fundamental analysis or technical analysis, or both.

The most popular answer, accounting for 46% of the sample for cryptocurrency was that they applied both technical and fundamental analysis. While 31% said they only apply technical analysis, 7.5% said they apply only fundamental analysis. 15.5% said they don't apply either fundamental or technical analysis.

For the sample of traditional trading, 41% said they applied both technical and fundamental analysis. While 39% said they apply only technical analysis. 13.75% of the sample said they only apply fundamental analysis. And the remainder 6.25% said they apply neither.

For the sample of both, 45% said they apply both technical and fundamental analysis, while 19.75% said they only applied technical analysis, and another 19.75% said they didn't apply either fundamental or technical analysis. 15.5% of the sample relied only on the fundamental analysis.

The numbers have been displayed in the tables below, in order, 1^{st} cryptocurrency, 2^{nd} Traditional trading and 3^{rd} Both:Table

(1)		(2)		(2)	
Grand Total	13	Grand Total	102	Grand Total	71
Technical analysis only	4	Technical analysis only	40	Technical analysis only	14
Neither	2	Neither	6	Neither	14
I apply both	6	I apply both	42	I apply both	32
Fundamental analysis only	1	Fundamental analysis only	14	Fundamental analysis only	11
Do you apply both technical analysis and fundamental analysis?	COUNTA	Do you apply both technical analysis and fundamental analysis?	COUNTA	Do you apply both technical analysis and fundamental analysis?	COUNTA

4.15: Q.12 "Do you apply both technical analysis and fundamental analysis?"

Findings: When looking at the sample of cryptocurrency traders, the majority applied technical analysis, with 10 out of the 13 respondents (including both) believed that technical analysis was an important aspect of trading.

We can see a similar pattern for the traditional traders with the majority saying technical analysis was important for them.

For the sample of both, it was the same result where the majority said that technical analysis was important for their trades, however, a few traders refrained from applying an analysis.

Q.13 Which technical indicators do you apply, if any?

This question was asked to the samples to compare which technical indicators they use to find the similarities or differences between the sample.

For this question, the sample could choose more than one answer, hence there are multiple answers for this section. The sample was given the choices of Candlestick Charting, MACD, Moving Averages (simple moving average/exponential moving average), RSI and "I don't apply technical analysis". Most of the other answers have been moved to Others, except for the cryptocurrency sample, where two answers were included since it didn't enlarge the list too much, the answers were Bollinger Bands and KDJ. VWAP (Volume Weighted Average Price) was kept for the sample of both, where 6 respondents mentioned using this technical indicator.

For this question, only the top 3 answers will be analysed, so as to not diminish the data analysis quality. The percentages are calculated based on the total number of respondents, rather than the total number of answers.

The most popular answer among the cryptocurrency sample was Moving Averages (SMA/EMA) which accounted for 61.5%. The second most popular option was RSI which accounted for 54%. 38.5% of the sample said they applied Candlestick Charting while another 38.5% said they didn't apply technical analysis.

For the traditional traders, the most popular option was Moving Averages (SMA/EMA) which was chosen by 61.75% of the sample. 60.75% of the sample said they applied Candlestick Charting and 27.5% said they applied RSI.

For the sample of traders who traded both, Moving Averages (SMA/EMA) was the most popular option which was chosen by 46.5% of the sample. The second most popular option, chosen by 43.5%

of the respondents was Candlestick Charting and 14.5% said they either used RSI or didn't apply any technical analysis.

The numbers have been displayed in the tables below, in order, 1st cryptocurrency, 2nd Traditional trading and 3rd Both:

Technical indicators	COUN	Technical Indicators	COUL	Technical Indicators	COL
Bolinger band	1	Candlestick Charting	62	Candlestick Charting	31
Candlestick Charting	5	I don't apply technical analysis	21	I don't apply technical analysis	21
I don't apply technical analysis	5	MACD	21	MACD Moving Averages (SMA/EMA)	19 33
MACD	3	Moving Averages (SMA/EMA)	63	Others	13
Moving Averages (SMA/EMA)	8	Others	14	RSI	21
RSI	7	RSI	28	VWAP	6
Grand Total	30	Grand Total	209	Grand Total	144
(1)		(2)		(3)	

Table 4.16: : Q.13"Which technical indicators do you apply, if any?"

Findings: In all the samples, we can see that the three most popular technical indicators were Moving Averages (SMA/EMA), Candlestick Charting and RSI. The samples were undivided on this question.

Q.14 What kind of strategy do you follow?

This question was asked to analyse the different strategies of the samples to find out the similarities and differences between the strategies of each sample.

For this question, all the samples could choose multiple answers as they can follow more than one strategy to trade. The options provided to the sample were News Trading, Momentum Trading, Contrarian Trading, Breakout Trading, Scalping, Swing Trading, and "I follow other people's analysis and recommendations". The sample was allowed to enter their own answers, all these answers have been moved to Others except one instance in the sample of both, where one person mentioned that they don't use any strategy.

For this question, only the top 3 answers will be analysed, so as to not diminish the data analysis quality. The percentages are calculated based on the total number of respondents, rather than the total number of answers.

The sample for cryptocurrency opted for "I follow other people's analysis and recommendations", 54% of the sample chose this answer. 46% of the sample chose Breakout trading and the 3rd most popular option was News trading which was chosen by 38.5%.

For the sample of traditional trading, the most popular option was Momentum Trading which was chosen by 55% of the sample. 50% of the sample chose Scalping as their preferred strategy of trading and 35% of the sample chose Breakout trading.

For the sample consisting of traders who traded both, Momentum trading was the most popular option chosen by 46.5% of the sample. 38% of the sample chose News trading and 26.75% of the traders said that they preferred scalping or "I follow other people's analysis and recommendations".

The numbers have been displayed in the tables below, in order, 1st cryptocurrency, 2nd Traditional trading and 3rd Both:

Table 4.17: Q.14 "What kind of strategy do you follow?"

Strategy	COUNTA	Strategy	COUNTA	Strategy	COUNTA
Breakout trading	6	Breakout trading	36	Breakout trading	17
I follow other people's analysis and	Ŭ	Contrarian trading (reverse trading)	17	Contrarian trading (reverse trading)	11
recommendations	7	I follow other people's analysis and reco	14	I follow other people's analysis and re	19
Momentum trading	3	Momentum trading	50	Momentum trading	33
Nous trading	5	Momentum trading	00	News trading	27
	5	News trading	22	No strategy	1
Others	4	Others	14	Others	14
Scalping	3	Scalping	51	Scalping	19
Swing trading	4	Swing trading	33	Swing trading	16
Grand Total	32	Grand Total	243	Grand Total	157
(1)		(2)		(3)	

Findings: Most of the sample of cryptocurrency traders chose the option of following other people's analysis and recommendations which can be correlated to their inexperience. However, momentum trading was the most popular option for the samples of traditional traders and traders who traded both.

Cryptocurrency traders and traders who traded both also relied on news trading to trade because news can lead to a fluctuation in the cryptocurrency market easily and can be seen as a good opportunity to trade.

Scalping was popular amongst traditional traders and scalping is usually recommended only to very experienced traders as it is very high-paced trading.

Q.15 How would you describe your experience with trading?

This question was asked to get some qualitative information from the respondents rather than quantitative information to learn about their sentiments towards trading. The traders were asked if they found trading enjoyable (1) or did they find it exhausting (5).

The majority of all the samples said that they found trading enjoyable. For cryptocurrency traders, however, it was tied to being neutral about trading.

31% of the cryptocurrency sample, 49% of the traditional trading sample and 37% of the sample consisting of both said that they found trading enjoyable.

The numbers have been displayed in the tables below, in order, 1st cryptocurrency, 2nd Traditional trading and 3rd Both:

Table 4.18: Q.15 "How would you describe your experience with trading?"

How would you describe your experience with trading?	COUNTA	How would you describe your experience with trading?	COUNTA	How would you describe your experience with trading?	COUNTA
1 – It is enjoyable	4	1 - It is enjoyable	50	1 – It is enjoyable	26
2 - It is somewhat enjoyable	3	2 - It is somewhat enjoyable	31	2 - It is somewhat enjoyable	21
3 - I am neutral about trading	4	3 - I am neutral about trading	13	3 - I am neutral about trading	8
4 – It is somewhat exhausting	1	4 - It is somewhat exhausting	7	4 - It is somewhat exhausting	12
5 – It is exhausting	1	5 – It is exhausting	1	5 - It is exhausting	4
Grand Total	13	Grand Total	102	Grand Total	71
(1)		(2)		(3)	

Findings: The majority of all the samples enjoy trading (4+) and it can be summarised that regardless of the securities they trade in, most of the traders enjoy just the process of trading.

Q.16 What's your opinion on the future of traditional trading? Q.17 What's your opinion on the future of cryptocurrency trading?

These questions were asked to understand if there was a bias amongst the traders about the other type of trading. And to understand how the sample of traders who traded both felt about the futures of the two types of trading.

When the question about the future of traditional trading was asked to the cryptocurrency sample, 7.5% said it'll be becoming more profitable. 31% said it will become less profitable and 61.5% said it'll not change.

When the same question was asked to them about the future of cryptocurrency trading, 54% said it will become more profitable while the other 46% said it'll become less profitable.

The numbers are presented in the table below:

Table 4.19: Q.16 and Q.17 "What's your opinion on the future of traditional trading?" "What's your opinion on the future of cryptocurrency trading?" for cryptocurrency sample

Grand Total	13	Grand Total	13
It isn't going to change	8	(less-profitable)	6
It is going to change for the worse (less-profitable)	4	It is going to change for the worse	,
It is going to change for the good (more profitable)	1	It is going to change for the good (more profitable)	7
What's your opinion on the future of traditional trading?	COUNTA	What's your opinion on the future or cryptocurrency trading?	COUNTA

Findings: Most of the sample believes that traditional trading will stay the same and will not be changing. However, the sample was almost equally divided on the future of cryptocurrency trading where one half believed it would be more profitable while the other half believed it would be less profitable.

When these questions were presented to the sample of traditional trading, 24.5% said that according to them, traditional trading would become more profitable in the future. 12.75% said it would become less profitable and 62.75% said it won't change and stay as it is.

When asked about cryptocurrency trading, only 16.5% of the sample said that cryptocurrency trading will become more profitable, while 60% of the sample said it will become less profitable. The remainder 23.5% of the sample said it will not be changing and will stay the same.

The numbers are presented in the table below:

Table 4.20: Q.16 and Q.17 "What's your opinion on the future of traditional trading?" "What's your opinion on the future of cryptocurrency trading?" for traditional traders' sample

What's your opinion on the future of traditional trading?	COUNTA	What's your opinion on the future of cryptocurrency trading?	COUNTA
It is going to change for the good (more profitable)	25	It is going to change for the good (more profitable)	17
It is going to change for the worse (less-profitable)	13	It is going to change for the worse (less-profitable)	61
It isn't going to change	64	It isn't going to change	24
Grand Total	102	Grand Total	102

Findings: Most of the sample, just like the cryptocurrency sample, believed that traditional trading isn't going to change and will stay the same. But when asked about the future of cryptocurrency trading, most of the sample believes it will be much less profitable in the future. This can be because of the lack of belief in the cryptocurrency market as it has no regulations.

The sample that traded both was asked the same questions too. When asked about traditional trading, 38% of the sample said that traditional trading was going to become more profitable. While 18.5% of the sample said that it'll become less profitable in the future. While the other 43.5% said there was going to be no change.

When asked about the future of cryptocurrency, 41% of the sample said that trading in cryptocurrency will become more profitable, while 39.5% disagreed and said it will become less profitable in the future. While 19.5% of the sample believed there is going to be no change in cryptocurrency trading.

The numbers for the analysis have been presented below:

Table 4.21: Q.16 and Q.17 "What's your opinion on the future of traditional trading?" "What's your opinion on the future of cryptocurrency trading?" for both traders' sample

A	74	A 17 ()	
It isn't going to change	31	It isn't going to change	14
It is going to change for the worse (less-profitable)	13	It is going to change for the worse (less-profitable)	28
It is going to change for the good (more profitable)	27	It is going to change for the good (more profitable)	29
What's your opinion on the future of traditional trading?	COUNTA What's your opinion on the future cryptocurrency trading?		COUNTA

Findings: Even though most of the sample believed that traditional trading isn't going to change, a significant number of traders believed that traditional trading is going to become more profitable. While, on the other hand when asked about the future of cryptocurrency trading, where 1/5th of the sample said

it isn't going to change, while the rest of the sample was divided where half of the traders believed it will become more profitable while the other half believed it will be less profitable.

Q.18 Cryptocurrency exchanges offer up to 125x margin rates, do you think it is inviting or risky? Q.19 Do you think the cryptocurrency market needs more regulations?

These questions were asked to the samples to know their opinions on exorbitant margin rates and to know whether the cryptocurrency markets, in their opinion, needed more regulations. These questions also aim to answer if there is a bias among the traders who traded cryptocurrency (the sample of cryptocurrency traders and the sample for both).

When presented with the question about the margin rates for cryptocurrency exchanges, 85% of the sample believed it was risky while 7.5% said it was inviting for them the other 7.5% said that they were neutral about this.

When asked about whether the cryptocurrency markets needed more regulations, 61.5% said yes and the other 38.5% said that there were no additional regulations required.

The numbers have been presented in the table below:

Table 4.22: Q.18 and Q.19 "Cryptocurrency exchanges offer up to 125x margin rates, do you think it is inviting or risky?" "Do you think cryptocurrency market needs more regulations?" for cryptocurrency sample

Cryptocurrency exchanges offer up to 125x margins, do you think it is inviting or risky?	COUNTA	Do you think cryptocurrency market needs more regulations?	COUNTA
I'm neutral about this	1	Voc	8
Inviting	1	165	0
Risky	11	No	5
Grand Total	13	Grand Total	13

Findings: Most of the cryptocurrency sample believed trading at such a high margin rate is risky. When asked about the regulations, the majority said that it would be better if the cryptocurrency market had more regulations.

The sample for traditional trading was presented with the same questions. When asked about the margin rates that cryptocurrency exchanges offer, 76.5% of the sample said that it was risky while 2% said it was inviting for them. The other 21.5% said they were neutral about this.

When asked whether the cryptocurrency market needed more regulations, 68.5% of the sample said that it required more regulations. While the other 31.5% said that it didn't.

The numbers can be seen in the table below:

Table 4.23: Q.18 and Q.19 "Cryptocurrency exchanges offer up to 125x margin rates, do you think it is inviting or risky?" "Do you think cryptocurrency market needs more regulations?" for traditional traders' sample

Cryptocurrency exchanges offer up to 125x margins, do you think it is inviting or risky?	COUNTA	Do you think cryptocurrency market needs more regulations?	COUNTA
I'm neutral about this	22	Yes	70
Inviting	2	No	32
Risky	78	110	02
Grand Total	102	Grand Total	102

Findings: Most of the sample agreed that the high margin rates are risky. The sample of traditional traders also believed that the cryptocurrency market needs more regulations.

The sample for traders who traded both were presented with these questions too. When asked about the margin rates provided by the cryptocurrency exchanges, 63.5% said the margin rates were too risky, while the other 15.5% said it was inviting for them. While 21% chose to stay neutral about this.

When asked whether cryptocurrency markets needed more regulations, 53.5% chose yes as an answer while the other 46.5% said no.

Table 4.24: Q.18 and Q.19" Cryptocurrency exchanges offer up to 125x margin rates, do you think it is inviting or risky?" "Do you think cryptocurrency market needs more regulations? "for both traders' sample

Cryptocurrency exchanges offer up to 125x margins, do you think it is inviting or risky?	COUNTA	Do you think cryptocurrency market needs more regulations?	COUNTA
I'm neutral about this	15	Yes	70
Inviting	11	No	32
Risky	45		02
Grand Total	71	Grand Total	102

Findings: Like the other two samples, the sample of both said that it's risky to trade at very high margin rates. However, when asked about the regulations, the sample was closely divided where one half agreed that the cryptocurrency market needed more regulations and the other half said that the cryptocurrency market didn't need more regulations.

Q.20 What was the reason you started trading?

This question was to know why the sample started trading, rather than quantitative analysis, this would qualify as qualitative analysis to know what inspired the traders to take the first step. The sample could choose more than one answer, so the percentage has been calculated against the number of respondents rather than the total number of answers. The sample was given the choice of; to make additional money on the side, to be involved in the financial markets, it was exciting to trade, recommendations from friends/family and, because of the internet. Apart from these answers, the sample could also choose to write their own answers, these answers have been moved to others for simplification of data. Only the top 3 answers from each sample will be assessed to not deteriorate the data quality.

When the cryptocurrency sample was asked this question, 69% said they started trading to make additional money on the side. 38.5% said they wanted to be involved in the financial markets and 23% said it was because of the internet influence and because trading was exciting.

In the traditional traders' sample, 74.5% said it was because they wanted to make additional money. 45% said because they wanted to be involved in the financial markets and 41% said because they found it exciting to trade.

For the sample of traders who traded both, 79% of the sample said it was for additional income, 41% said it was to be involved in the financial markets and 36.5% said it was exciting to trade.

The numbers have been displayed in the tables below, in order, 1st cryptocurrency, 2nd Traditional trading and 3rd Both:

What was the reason you started trading?	COUNTA	What was the reason you started trading?	COUNTA	What was the reason you started trading?	COUNTA
To make additional money on the side	9	To make additional money on the side	75	To make additional money on the side	56
To be involved in the financial markets	5	To be involved in the financial markets	46	To be involved in the financial markets	29
Recommendation from friends/family	2	Recommendation from friends/family	5	Recommendation from friends/family	6
Others	2	Others	14	Others	6
It was exciting to trade	3	It was exciting to trade	42	It was exciting to trade	26
Because of the internet	3	Because of the internet	8	Because of the internet	13
Grand Total	24	Grand Total	190	Grand Total	136
(I)		(2)		(3)	

Table 4.25: Q.20 "What was the reason you started trading?"

Findings: The top 3 reasons why all the samples started trading were the same. They all started trading because they wanted to make additional money on the side, to be involved in the financial markets and because it was exciting to trade.

Questions asked only to cryptocurrency traders and the sample for both

Q.21 Why did you venture into cryptocurrency trading?

This question was asked to understand why the samples started trading cryptocurrencies, and what initially attracted them to start trading cryptocurrencies.

For this question, the sample could choose more than one answer, so the percentage has been calculated against the number of respondents rather than the total number of answers. The sample was

given the choice of; revolutionary technology, fewer regulations, higher returns, high volatility, and all of the above. Apart from these answers, the sample could also choose to write their own answers, these answers have been moved to others for simplification of data.

Only the top 3 answers from each sample will be assessed to not deteriorate the data quality.

54% of the sample for cryptocurrency said they ventured into cryptocurrency trading because of higher returns, 31% said it was because of high volatility and 23% said because of revolutionary technology.

For the sample which traded both, 38% said it was because of revolutionary technology, 36.5% said it was because of higher returns and 31% said it was because of high volatility.

The numbers have been displayed in the tables below, in order, 1st cryptocurrency and 2nd Both: *Table 4.26: Q.21 "Why did you venture into cryptocurrency trading?"*

Why did you venture into cryptocurrency trading?	COUNTA
Revolutionary technology	3
Others	2
Less regulations	1
Higher returns	7
High volatility	4
All of the above (excluding others)	2
Grand Total	19

(1)

Why did you venture into cryptocurrency trading?	COUNTA
Revolutionary technology	27
Others	10
Less regulations	13
Higher returns	26
High volatility	22
All of the above (excluding others)	15
Grand Total	113

(2)

Findings: The reasons why the samples ventured into cryptocurrency trading are the same however, the priorities were different. We can correlate this with the experience of the traders because the sample that traded both was more experienced, they had to believe in the feasibility of the projects before investing their money, however, since the cryptocurrency traders were less experienced, they were attracted more by the volatility than the feasibility.

Questions asked only to cryptocurrency traders

Q.22 What kind of trading do you do on cryptocurrency? (What kind of securities do you buy?)

This question was asked to understand how cryptocurrency traders invested their money. The sample could choose more than one answer, so the percentages are calculated against the total number of respondents rather than the total number of responses.

The majority of the sample chose cryptocurrencies on spot with 61.5% choosing that option. 54% of the sample chose cryptocurrency futures which is margin trading. And 7.5% each chose others, options, and all of the above.

What kind of securities do you buy?	COUN
Spot	8
Others	1
Options	1
Futures	7
All of the above (Excluding others)	1
Grand Total	18

Table 4.27: 0.2.	?"What kind	l of tradi	ng do vou d	o on cryptoci	ırrencv?'
~		2	0 /	~ 1	~

Findings: Most of the sample either traded by buying on the spot market, where no margin is required, or on the cryptocurrency futures market, where a margin is required. While all the other options were not so frequently chosen.

Q.23 Would you switch to traditional trading?

This question was asked to understand whether cryptocurrency traders were willing to adopt traditional securities as the means of trading.

15% of the sample said that they're willing to switch to traditional trading, while 23% said that they're not willing to switch. While 62% said that they're willing to give it a try but don't believe they'll be switching.

Table 4.28: Q.23 "Would you switch to traditional trading?"

Would you switch to traditional trading?	COUNTA
Yes	2
No	3
I won't switch but I am willing to try it	8
Grand Total	13

Findings: We can observe that most of the sample was willing to try traditional trading. This can be assumed because the traders have become comfortable with trading and would be willing to try other forms of trading.

Q.24 Do you think your strategy and analysis would change if you were to trade traditional securities?

This question was asked to understand whether they would be adopting new strategies if they switched to traditional trading or continue using what's been successful for them in cryptocurrency trading.

38.5% of the sample said their strategy would change while the other 38.5% said that their strategy will remain the same. While 23% said they were unsure and chose the option of maybe.

Table 4.29: Q.24 "Do you think your strategy and analysis would change if you were to trade traditional securities?"

Grand Total	13
Maybe	3
No	5
Yes	5
Do you think your strategy and analysis would change if you were to trade traditional securities?	COUNTA

Findings: While almost 1/3 of the sample said they were unsure whether their strategy would change, the other traders were equally divided, where one half said it would change their strategy if they switched to traditional trading, while the other half said it wouldn't change their strategy.

Questions asked to traditional traders and traders who traded both

Q.25 Would you call yourself a day trader?

The aim of this question was to understand how long the samples kept their positions and the frequency of their trades.

Limitation: This question was skipped for cryptocurrency traders because cryptocurrency traders trade in a market that operates 24 hours a day. Since the market runs all day long, the concept of day trading could become abstract. Hence, to avoid confusion, the sample for cryptocurrency traders was not presented with this question.

42% of the sample for traditional traders said they were day traders, while the rest were almost equally divided. 17.5% said they weren't day-traders and held positions for a long term. And the rest 40.5% said they traded on the same day from time to time, some more often than others.

When this question was presented to the sample who traded both, most of the traders, accounting for 34% said they were not day traders. While only 19.5% said they were day traders. While the other 46.5% said they traded on the same day, not for all the positions but for some.

The numbers have been displayed in the tables below, in order, 1st traditional traders and 2nd Both: *Table 4.30: O.25 "Would you call yourself a day trader?"*

Would you call yourself a day-trader?	COU
Yes, I open and close the positions on the same day	43
Sometimes, I trade on the same day	14
Seldom, I prefer to hold positions for longer	13
No, I don't open and close the positions on the same day	18
Frequently, I trade on the same day	14
Grand Total	102

Grand Total	71
Frequently, I trade on the same day	3
No, I don't open and close the positions on the same day	24
Seldom, I prefer to hold positions for longer	14
Sometimes, I trade on the same day	16
Yes, I open and close the positions on the same day	14
Would you call yourself a day-trader?	COU

(2)

Findings: Most of the sample of traditional traders said they opened and closed positions on the same day. While for the sample of traders who traded both, the frequency of trading on the same day was comparatively less. Meanwhile, $1/3^{rd}$ of the sample said that they never trade on the same day.

Questions asked only to traditional traders

Q.26 What kind of securities do you buy?

This question was asked to understand what securities the traditional traders invested in. The sample was given the choice of selecting multiple answers, so the percentages have been calculated against the total number of respondents rather than the total number of answers. The sample could also write their own answers, all the other answers have been moved to Others to not diminish the data quality.

76.5% of the sample said that they invested in shares/stocks of a company. The second most popular answer amongst the sample was Options, which was chosen by 47% of the sample and the third most popular option was futures which was chosen by 21.5% of the sample.

The futures in the cryptocurrency market and traditional trading could differ because futures are not perpetual in the traditional market, whereas in the cryptocurrency market futures trading can and mostly is perpetual; meaning that there's no expiration date for the assets that are perpetual.

The numbers have been presented below in the table:

Table 4.31: Q.26 "What kind of securities do you buy?" for traditional traders' sample

What kind of securities do you buy?	COU
Bonds	11
Foreign Exchange	6
Forwards	1
Futures	22
Options	48
Shares/stocks	78
Swaps	2
Grand Total	168

Findings: Most of traditional traders prefer trading shares/stocks, options, and futures. Options and futures require a margin to trade while shares and stocks could be purchased by both margin and traders' own capital.

Q.27 Would you switch to cryptocurrency trading?

This question was asked to the sample of traditional traders to know their willingness to trade cryptocurrencies.

67.5% of the sample said that they were unwilling to switch to cryptocurrency trading, while only 3% said they would switch to cryptocurrency trading. The remainder of 29.5% said they were willing to try cryptocurrency trading.

Table 4.32: Q.2	7"Would you switch	to cryptocurrency	trading?"
-----------------	--------------------	-------------------	-----------

Would you switch to cryptocurrency trading?	COUNTA
Yes	3
No	69
I won't switch but I am willing to try it	30
Grand Total	102

Findings: We can see that most of traditional traders are unwilling to change to cryptocurrencies. This can be assumed because of the bias and lack of knowledge or willingness to switch. However, some of the traders were willing to try it.

Q.28 Do you think your strategy and analysis would change if you were to trade cryptocurrencies?

This question was asked to understand whether they would be adopting new strategies if they switched to cryptocurrency trading or continue using what's been successful for them in traditional trading.

For this question, 38% of the sample said yes, their strategy would change, 30% said it won't change their strategy and 32% said that it might change, and they were unsure, so they chose the option of maybe.

Table 4.33: Q.28"Do you think your strategy and analysis would change if you were to trade cryptocurrencies?"

Do you think your strategy and analysis would change if you were to trade cryptocurrencies?	COUNTA
Yes	39
No	31
Maybe	32
Grand Total	102

Findings: The sample was almost equally divided into 3 parts for this question, where a third believed their strategy would change, another third believed their strategy wouldn't change and the final third believed they were unsure and chose maybe.

Questions aimed only at the sample of traders that traded both.

Q.29 What kind of securities do you buy?

This question was asked to the traders who traded both to understand in which securities they invest. The sample was given the choice of selecting multiple answers, so the percentages have been calculated against the total number of respondents rather than the total number of answers. The sample could also write their own answers, all the other answers have been moved to Others to not diminish the data quality. Only the top 3 answers have been considered for this question.

The most popular answer among the sample was shares and stocks, chosen by 90% of the sample. The second most popular option was cryptocurrencies on spot chosen by 81.5% of the sample. 56.5% of the sample chose Options as the third most popular choice.

The numbers have been presented below in the table along with the other alternatives:

What kind of securities do you buy?	COUNTA
Bonds	16
Cryptocurrencies on spot	58
Cryptocurrency futures	9
Cryptocurrency options	4
Foreign Exchange	10
Forwards	1
Futures	8
Options	40
Others	1
Shares/stocks	64
Swaps	1
Grand Total	212

Table 4.34: Q.29"What kind of securities do you buy?" for both traders' sample

Findings: Amongst the sample, the most popular options were stocks, cryptocurrency spot and options. If we refer to the question regarding monthly earnings from trading, we can see that the traders mix and match cryptocurrencies and traditional securities to maximise profits.

Q.30 Which one do you prefer to trade on regular basis?

This question was asked to see whether the sample preferred one over the other.

69% of the sample chose traditional securities as their preferred trading alternative. While only 11% said that they preferred to trade cryptocurrencies. 20% of the sample said that they preferred to use a balanced approach while trading the securities.

The numbers have been presented below in the table:

Table 4.35: Q.30"Which one do you prefer to trade on regular basis?"

Grand Total	71
Traditional securities	49
Cryptocurrencies	8
Balanced-approach	14
Which one do you prefer trading on regular basis?	COUNTA

Findings: Most of the sample preferred to trade traditional securities more often than cryptocurrencies. This could be because of less volatility in the prices and more experience in that field as cryptocurrency trading is relatively new.

Q.31 Which one is easier to trade?

This question was asked to find out which trading was easier when the sample traded.

The sample was almost evenly divided on this question, as 52% said that traditional trading was easier to trade while the other 48% said cryptocurrency is easier to trade.

The numbers have been presented below in the table:

Table 4.36: Q.31 "Which one is easier to trade?"

Grand Total	71
Traditional securities	47
Cryptocurrencies	24
Which one is easier to trade?	COUNTA

Findings: The sample said that traditional securities were relatively easier to trade, this could be assumed because the traders were more familiar with traditional trading as they are experienced traders and may rely more on traditional trading which we can correlate to the question of the preference of trading.

Q.32 Do you use the same strategy when you trade cryptocurrencies as traditional securities?

This question was presented to compare with the other samples whether the traders who traded both used the same strategy while trading cryptocurrencies and traditional securities.

41% of the sample said that they used the same strategy while the other 59% said their strategy differed when they traded.

The numbers have been presented below in the table:

Table 4.37: Q.32 "Do you use the same strategy when you trade cryptocurrencies as traditional securities?"

Do you use the same strategy when you trade cryptocurrencies as traditional securities?	COUNTA
Yes	29
No	42
Grand Total	71

Findings: The majority of the sample said that they don't use the same strategy when trading cryptocurrencies and traditional securities. However, still, a significantly large proportion said that they use the same strategy.

5 Results

The main purpose of this study is to find the differences and similarities between the traders who traded only traditional securities and traders who traded only cryptocurrencies. However, since some traders engaged in trading both, a separate sample for traders who traded both was created to be used as a benchmark for the other two categories. The results are solely based on the survey conducted.

The main differences that we can see among the traders is the level of experience. The sample of cryptocurrency traders was relatively less experienced in comparison to the traditional traders' sample. The sample for both also consisted of mostly experienced traders. This is not surprising because of the internet influence (Doszhan et al., 2020; Umar et al., 2021) on cryptocurrencies which attracts new players to the field of trading.

The sample of cryptocurrency was attracted to cryptocurrency trading because of high volatility while the sample of traders who traded both was attracted because of technology and higher returns, which shows that experienced traders believe in the technology rather than jumping the gun. Most of the sample of cryptocurrency traders didn't rely on cryptocurrency as a full-time occupation, whereas about 1/5th of the sample of traditional traders relied on trading as a full-time occupation. Cryptocurrency traders, generally, were earning less money than traditional traders and traders who traded both. However, on average, traders who traded both were earning more than traditional traders' sample.

Cryptocurrency traders usually were risk-averse and traded on a lower margin in comparison to the traditional traders who traded on a higher margin and said they traded more aggressively in general. This could be assumed because of the high volatility in cryptocurrency market. Since cryptocurrency markets are known to be volatile (Vo & Xu, 2017), it would be extremely risky for the traders to trade at high margin rates.

Cryptocurrency traders believe that cryptocurrencies are more profitable while traditional traders believe that traditional trading is more profitable and the sample for both believed that they were equally profitable. We can assume that there is a strong bias among the traders to defend the area they were trading in. The strategies followed by cryptocurrency traders was different from traditional traders, and we could see in the sample of traders who traded both, it was a mixture of the two.

When asked about the future of cryptocurrency trading, the samples disagreed as most of the traditional traders believed that cryptocurrency trading will be less profitable in the future while a little more than half of the sample of cryptocurrency traders believed it will be more profitable. Interestingly, the sample that traded both was closely in disagreement about this as well where half believed that cryptocurrency will be more profitable, and the other half said it will be less profitable. When asked about the willingness to adopt the other type of trading. cryptocurrency traders were more willing to try traditional trading in comparison to traditional traders who were unwilling to try cryptocurrency trading.

When we look at similarities, most of the samples had more winning trades where they were

making mostly between 0-20% return on each trade. When asked about the security of trading, all the samples agreed that traditional securities were more secure to trade.

The samples were also in agreement about the application of analysis, where all the samples agreed that technical analysis was extremely important for them to trade, while some traders preferred applying both technical analysis and fundamental analysis. They were also in agreement about the technical indicators that they applied, they all applied Moving Averages (SMA/EMA), Candlestick Charting and RSI.

All the samples agreed that they started trading to be involved in financial markets, to earn additional money and because they thought it was exciting to trade. When asked about their experience in trading, all the samples enjoyed trading and didn't find it very stressful, so regardless of the securities they trade, all the traders enjoy the concept of trading. The traders also believed that traditional trading will not be changing a lot in the future. There was also an agreement between the traders that cryptocurrency market needed more regulations and that the margin rates offered by cryptocurrency exchanges were too high and risky.

The samples also agreed that their strategy would either change or might change when they adopt the other form of trading, using the sample of both as a benchmark, most of the traders in the sample said that they didn't use the same strategies and analysis when trading cryptocurrencies and traditional securities. When asked about the trading on the same day, the sample of traditional traders and the sample of traders who traded both, agreed that they frequently opened and closed positions on the same day. However, the traditional traders were more inclined towards the concept of day trading.

6 Conclusion

6.1 Main conclusions

The purpose of this study is to find the differences and similarities between cryptocurrency traders and traditional traders such as their strategies, preference of analysis, technical indicators, and so forth. Since the sample of traders was divided into subsamples of cryptocurrency traders, traditional traders and traders who traded both, we'll analyse them in order.

The cryptocurrency traders are generally less experienced, are risk-averse and generally make less profits in comparison to traders who trade traditional securities or indulge in both. The reason why the sample started trading was to be involved in the financial markets and to earn additional income. Their prime reason for trading and attraction to cryptocurrencies is because of high volatility. Even though cryptocurrency exchanges offer astronomical margin rates (Cheng et al., 2021), the traders prefer to use a lower margin rate, because high volatility combined with high margin rates can lead to losses (Vo & Xu, 2017). Cryptocurrency traders rely on recommendations from other traders, but it may lead to losses as those traders lack credibility (DiFonzo & Bordia, 1997). Most of the traders were making between 0-20% and were trading profitably on average. The traders in the sample were also willing to try traditional trading and said their strategies might change.

The sample of traditional traders was more experienced in comparison to cryptocurrency trade and traded according to the situation, so they were more willing to take risky trades. The primary reason why they started trading was because they wanted to be involved in the financial markets and to earn additional income. Traditional traders generally trade at a higher margin than cryptocurrency traders which can be correlated to their experience (Nicolosi et al., 2009). Traditional traders prefer momentum trading and scalping as their preferred strategy. Most of the sample was earning between 0-20% on each trade, but the number of people earning more than 20% was much higher than the cryptocurrency sample. Most of the sample was unwilling to adopt cryptocurrency trading.

The sample who traded both was generally more experienced in comparison to the other samples considering a 2-year experience as a pivot. Like traditional traders, this sample was trading situationally, this is interesting because they have access to trade at the same margin as cryptocurrency traders, but they utilise experience to get over the hurdle (assumption). This sample like the others started trading to be involved in the financial markets and to earn additional income. This sample utilises a mixture of the strategies from the other two samples as the traders prefer momentum trading, form the traditional sample, and news trading, from the cryptocurrency sample, most of the sample was earning a return between 0-20% on each trade, but the minority was earning more returns than the other two samples. The sample preferred and found it easier to trade traditional securities instead of cryptocurrencies despite being experienced in it.

Even though the strategies of the sample differed, they all believed that cryptocurrencies require more regulations, that traditional trading will not be changing in the future and that high margin rates provided by the cryptocurrency exchanges are too risky. Moreover, the samples also believe that technical analysis is very important and all of them use the same technical indicators.

This research will prove useful for new traders, traditional traders looking to adopt cryptocurrency trading, exchange committees and academic researchers looking to explore the topic of cryptocurrency trading.

6.2 Limitations

The biggest limitation of the results from the survey was that the sample of traders who traded only cryptocurrencies was limited to only 13 people. Even though the sample of traditional traders was the highest, the traders who traded both could be considered as an adequate sample. So, the results pertaining to cryptocurrency trading may have been lopsided.

Another limitation was that the concept of day trading may have been abstract for cryptocurrency traders as the cryptocurrency markets don't start and stop at certain times like the traditional securities market.

The options provided for the monthly income from trading depends highly on the money invested, because usually, higher capital leads to higher rewards and the unexperienced traders may not have the same amount of capital to invest as experienced traders.

The options provided to the samples may have impacted their initial judgement or perspective.

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8 Appendix

Questions for the survey:

- 1. Do you trade in cryptocurrency or traditional securities (stocks, bonds, etc.)?
- 2. How long have you been trading?
- 3. Do you trade full-time or part-time?
- 4. What's your average income (monthly) from trading?
- 5. Do you trade on margin (futures) or do you purchase the securities at full price?
- 6. What's the maximum margin you trade at?
- 7. Are you risk-averse or an aggressive trader?
- 8. Do you have more winning trades?
- 9. What's your average return on each trade?
- 10. Which trading do you think is more profitable?
- 11. Which trading do you think is more secure?
- 12. Do you apply both technical analysis and fundamental analysis?
- 13. Which technical indicators do you apply, if any?
- 14. What kind of strategy do you follow?
- 15. How would you describe your experience with trading?
- 16. What's your opinion on the future of traditional trading?
- 17. What's your opinion on the future of cryptocurrency trading?
- 18. Cryptocurrency exchanges offer up to 125x margin rates, do you think it is inviting or risky?
- 19. Do you think cryptocurrency market needs more regulations?
- 20. What was the reason you started trading?

'Cryptocurrency Traders' Specific:

- 1. What kind of trading do you do on cryptocurrency?
- 2. Why did you venture into cryptocurrency trading?
- 3. Would you switch to traditional trading?
- 4. Do you think your strategy and analysis would change if you were to trade traditional securities?

'Traditional Traders' Specific:

- 1. Would you call yourself a day trader?
- 2. What kind of securities do you buy?
- 3. Would you switch to cryptocurrency trading?
- 4. Do you think your strategy and analysis would change if you were to trade cryptocurrencies?

'Traders who traded both' Specific:

- 1. Would you call yourself a day trader?
- 2. What kind of securities do you buy?

- 3. Which one do you prefer to trade on regular basis?
- 4. Which one is easier to trade?
- 5. Do you use the same strategy when you trade cryptocurrencies as traditional securities?
- 6. Why did you venture into cryptocurrency trading?

Results from the survey:

The results from the survey can be accessed using this <u>link</u>