



# Article Motivations, Barriers and Risk-Taking When Investing in Cryptocurrencies

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Abstract: The cryptocurrency market is very young, volatile, and highly risky. By the end of 2020, a new bull run started, and the prices of several cryptocurrencies reached record-breaking highs. The factors affecting this rise of cryptocurrencies include the impacts of the COVID-19 pandemic, the economic crisis and the global increase in the inflation rate, as well as the gradual acceptance and adoption of cryptocurrencies by people worldwide. This exploratory research is focused on this last factor, i.e., using cryptocurrency and with it, the associated support of its ecosystem (e.g., mining, staking). A survey was carried out investigating the motivational factors and barriers to investment in cryptocurrency for Czech representatives of Generations Y and Z (18–42 years; n = 468). The geographic scope was nationwide, and quota sampling was used. Notably, this survey was carried out prior to the global COVID-19 pandemic outbreak, and it is thus not affected by the pandemic and its related economic impacts. The article investigates the dependency between the individual motivational factors and barriers from the perspective of the tendency to take risks (using the risk propensity scale), according to gender and representation of Generations Y and Z. The lack of information on this form of investment is considered as the main barrier to investment in cryptocurrency, with respect to sex and generations. Compared to that, a negative experience with investment in cryptocurrency constitutes the most minor barrier. Respondents that have a tendency to take risks are mostly put off by their lack of experience with investment in general. The main motivational factor for investment in cryptocurrency, with respect to sex and generations, is considered to be the speed of increase in cryptocurrency value. On the other hand, the least encouraging factor is the opportunity to use the high volatility of cryptocurrency for speculative trading. Interestingly, this factor mostly encourages respondents that do not have a tendency to take risks. The findings are discussed, along with the presentation of their implications for practice and the directions of further explanatory research.

**Keywords:** Bitcoin; exploratory survey; acceptance; attitude; young generations; ICT domestication; gen Z; millennials; zoomers; young adults; generation Y; generation Z

# 1. Introduction

Cryptocurrency is a decentralized payment system where the transfer of title is performed solely cryptographically [1]. Cryptocurrency is operated through a peer-to-peer computer network, ensuring its security. The title to cryptocurrency units is transferred by means of transactions. Transaction history, as well as information on cryptocurrency unit title, is stored in a blockchain data structure. Each member of the peer-to-peer network stores the entire blockchain.

Cryptocurrency is divided into two large groups: coins and tokens. Coins constitute a cryptocurrency with its own blockchain. Tokens are not blockchain-based; they are used as a smart contract in the blockchain of another cryptocurrency—most frequently, Ethereum.



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**Copyright:** © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). In February 2021, there were over 8600 cryptocurrencies worldwide [2]. According to CoinMarketCap, cryptocurrencies involve anything traded at least on two stock exchanges while meeting the criteria of the formal definition of cryptocurrency. As of the end of February 2020, the most significant cryptocurrencies with respect to market capitalization included: Bitcoin, Ethereum, XRP, Bitcoin Cash, Bitcoin SV, Litecoin, Tether, EOS, Binance Coin and Tezos. At the end of February 2021, they included: Bitcoin, Ethereum, Cardano, Tether, Binance Coin, Polkadot, XRP, Litecoin, Chainlink and Stellar [2]. Within a single year, these changes reflect the volatility of the young cryptocurrency market with respect to the rapid development of technologies and the use of these technologies in practice.

In January 2021, the capitalization of the cryptocurrency market exceeded USD 1 trillion, and in April 2021, even USD 2 trillion [2]. In the year 2020 alone, the total cryptocurrency market capitalization increased by 300% [3]. In particular, this interest increase is associated with the economic crisis, accelerated by the global COVID-19 pandemic and increased interest from institutional investors [4]. These investors attempt to diversify their investment portfolios to better protect their assets from the impacts of the economic crisis [5]. Along with the increased interest of these institutional investors, retail investors will also become increasingly interested in trading small amounts of cryptocurrencies for their personal needs. On small-sized markets, such as the cryptocurrency one, retail investors are of high significance. This article is also focused on them.

After over a decade of development of cryptocurrency technology and its partially technological parts (e.g., blockchain, decentralized technologies), such technologies can be referred to as general-purpose technologies [6]. General-purpose technologies can be defined as technologies having the potential to have a major effect on society through their impact on the existing economic as well as social structures. Cryptocurrency technology has such potential. In other words, these technologies are at the notional peak of the technological bubble, involving "a large number of product classes or sectors that make use of the former at the bottom" [7]. It may thus be assumed that such technologies have a wide application and acceptance in society. In this connection, the sustainable development of cryptocurrency technology, and thus of the cryptocurrency market, constitutes an important aspect.

The sustainability of further development of the cryptocurrency market is linked to the positive attitude of users. On the one hand, the acceptance of cryptocurrency technology across all current generations needs to be increased. On the other hand, the adoption of such technology by younger generations of economically active people must be investigated and encouraged, as these younger generations are more open to the use of new technologies [8] and have a positive impact on the older generations [9]. In fact, this research in the attitude of potential users can help clarify people's approach to cryptocurrency technology.

Due to the fact that the cryptocurrency technology is so new, this study is focused on the most available form of cryptocurrency use, i.e., trading and investment in cryptocurrency on cryptocurrency exchanges. This is mainly due to the connection of such investment with the technological background of using a specific cryptocurrency. From a long-term perspective, investors must consider (with cryptocurrency alternatives to Bitcoin) whether the team or community in the background of the technological development of a certain cryptocurrency is doing a good job, and whether the usability of the given cryptocurrency in practice is about to improve in the future. Only this approach will increase the number of new users and improve investment, as technologies without users lack the purpose for which they had been designed. On the other hand, from a short-term perspective, speculative cryptocurrency trading is based on a media sentiment that is restricted in terms of time and is often irrational. The sustainability of cryptocurrency is not associated with rapid investors' interest (a so-called "economic bubble"); it is connected with the continuous use and development of cryptocurrency technology, including its use within new sectors.

This article presents exploratory research of the attitude of the representatives of selected generations of young people to investment in cryptocurrency. It is thus descriptive

research focused on the motivational factors and barriers concerning the respondents' tendency to take risks, according to the risk propensity scale [10]. Due to the fact that the entire cryptocurrency market is very young and extremely high-risk, the research includes a psychological test concerning the human tendency to take risks [1,11].

During the literature review of academic papers, a research gap was identified in the area of academic research concerning generation research and cryptocurrency. Based on the authors' research (March 2021) of Scopus, a citation database, only four articles were found concerning the searched term {("Generation Z" OR "Generation Y" OR "young generations") AND (cryptocurrency OR bitcoin)} in any of the records. Regrettably, only one of them directly concerned generation research [12]. Other articles only concern subsidiary research mentioning younger generations (see [13–15]).

On the other hand, professional research contains much more information (e.g., [16–18]), and even more can be found in opinion articles concerning younger generations while referring to such research. It must be noted that professional research is associated with many issues, such as the fact that they are mostly elaborated as surveys, with insufficient descriptions of the methodology or demographic characteristics of the respondents. However, it may be concluded from the aforementioned interest of the professionals that this topic is very important in terms of practice.

Regrettably, academic research on generations, concerning the area of cryptocurrency, is rarely performed—the given theme has thus not been mapped thoroughly. This is also the main reason why the authors decided to perform this fundamental exploratory research. This article aims for exploratory analysis, enabling more researchers to develop further research of social and technical phenomena associated with cryptocurrency technology, e.g., explanatory research. Upon the literature review, research questions and hypotheses are provided at the end of Section 2; the responses thereto may be of assistance to other researchers.

The focus, practical benefits and goals of this exploratory research arise from social informatics [19]. From the perspective of social informatics, the conclusions of this study may support theories on using cryptocurrency technology from a macro (social) point of view. At the same time, the feedback to the research helps improve and configure this technology continuously in order to ensure its purposefulness for its users [20].

The division of this article is as follows: Section 2 presents the related literature concerning cryptocurrency and the research questions and hypotheses. Section 3 provides details on the applied methodology, including the demographic data of respondents. Section 4 presents the findings. The final Section 5 provides the answers to the research questions, instigating a broader discussion of the topic.

# 2. Related Literature

This section first presents the related studies, using mainly quantitative methods of research, of people's attitudes to cryptocurrency. At the beginning of cryptocurrency research, the aforementioned surveys were mainly exploratory. Supposedly, the first survey [21] was conducted in February 2013 with 1000 respondents, concerning solely Bitcoin. The survey aimed to look into the demography of the Bitcoin community. The average Bitcoin user in 2013 was "male (95.2%), 32.1 years old, libertarian or anarcho-capitalist (44.3%), non-religious (61.8%), with a full-time job (44.7%), and in a relationship (55.6%)" [21]. Another questionnaire survey [22] conducted from February to April 2013, with 1193 respondents, was also only focused on the demography of the Bitcoin community. In fact, it brings very similar outcomes to [21].

Although, since 2011, a number of other cryptocurrencies have been created, research is normally only performed with respect to Bitcoin. For instance, the survey by Presthus and O'Malley [23] only concerned Bitcoin, although it was carried out in the summer of 2016 when there were over 600 other cryptocurrencies on the market [24]. This survey was only conducted with 135 respondents. In association with the adoption of Bitcoin at that time, the authors claim a deadlock over the status, as the number of Bitcoin users

was very slowly increasing. On the one hand, Bitcoin users adopted the currency mainly due to technological curiosity. On the other hand, non-users—the largest group of their respondents—were "waiting for others to start using Bitcoin, as they question the value and security issues" [23]. Articles [25] or [26] may serve as another example, as a statistical evaluation was performed with respect to the impact of various legal, criminal, financial, and social determinants of the adoption of the Bitcoin infrastructure in the years from 2014 to 2018. As opposed to other cryptocurrencies, Bitcoin still plays a major role in the area of cryptocurrency research, as it currently constitutes the most important cryptocurrency.

In recent years, research is increasingly focused not only on Bitcoin but also on dozens or hundreds of other cryptocurrencies. For instance, the article by Alzahrani and Daim [27] contains a literature review of past research related to cryptocurrency adoption. The main factors supporting its adoption, according to this review, include "the investment opportunity, the anonymity of the transactions and privacy, the acceptance by businesses as a payment method, the fast transfer of funds, the low cost of transactions and technological curiosity" [27]. As another example, Lansky [1] analyzed the price of 1278 cryptocurrencies from 2013 to 2016. The article deals with the greatest increases and decreases in prices. It was ascertained that the valuation of certain cryptocurrencies increased by even hundreds of times in the monitoring period, whereas various other cryptocurrencies ceased to exist or had their value decreased below 1% of the original value. The subsequent research [28] analyzed over 2500 cryptocurrencies from 2013 to 2018 and ascertained that over 70% of cryptocurrencies ceased to exist and became excluded from trading.

Cryptocurrencies are very interesting from a technological point of view; nevertheless, ordinary people become aware of them more due to the high volatility of their prices. This high volatility of the prices leads to a higher risk of losing the invested funds; therefore, the dependency between the representatives of young generations and their tendency to take risks must be further looked into, as it is precisely these generations that are among the most frequent users of cryptocurrency. A similar perspective is emphasized by the study [11] concerning 244 respondents (investors in cryptocurrency), pointing out the fact that the risks associated with cryptocurrency serve, to a certain extent, as an incentive for investors in cryptocurrencies.

On the other hand, in certain cases, cryptocurrency can be less risky than cash issued by certain countries. Musialkowska et al. [29] ascertained that Bitcoin may be a safe haven in Venezuela, where the bolivar, the local currency, gets devalued by the high inflation rate. Nevertheless, gold and oil were considered less risky with respect to preserving value than Bitcoin.

The article by Lee et al. [30] investigates whether Bitcoin is a speculative asset or an innovative technology. The outcome may come as a surprise—Bitcoin constitutes both, partially. The authors found out that there are two large groups of traders on the Bitcoin market [30], "speculators ... and tech-savvy investors. While speculators seek to profit from extrapolating the price trends, tech-savvy investors trade based on the prospective value of Bitcoin, which is a function of factors that capture the market demand and technical supply of Bitcoin".

Cryptocurrency is often discussed on social media, which constitutes a popular means of communication between the representatives of younger generations, such as Generations Y and Z [31]. Mai et al. [32] analyzed the dynamics of the interaction between social media and the monetary value of Bitcoin. It was concluded that more bullish forum posts are associated with higher future Bitcoin values. The authors in [32] concluded that social media sentiment is an important predictor in determining Bitcoin valuations, which was confirmed in the years to follow (see [33]).

Prior publications pointed out the possibility that the increase in cryptocurrency prices is caused significantly by speculations on their future price. Below can be found a summary of publications looking into the potential of cryptocurrency use in finance, which could serve as an incentive for the representatives of younger generations to invest in and use cryptocurrency. The article by Peter and Moser [34] examines different opportunities to implement blockchain technology in online payment and sales transaction systems, with the focus on the financial sector of the German-speaking area of Europe. The authors of this article carried out a literature review and conducted a questionnaire survey among payment transaction experts. The results from the survey suggested that many experts were investigating the new technology; however, there was a lack of specialized legal regulations for the area of cryptocurrency. Interesting results are also brought by Sutcu and Aytekin [35], who conducted a survey to measure the level of entrepreneurship of Bitcoin miners, buyers and sellers. The findings show that users who are interested in mining, buying, selling and trading have a very high level of entrepreneurial points, and do not fear entering a quite new and risky area.

Cryptocurrency is often associated with criminal activities, which could put off the representatives of younger generations from investing in it. Fortunately, the situation is better than expected. The following two articles investigated the current situation and often mention the possibility of providing for cryptocurrency regulation in the future. The first selected article [36] analyzed the criminal activity associated with cryptocurrencies. The authors made a systematic content review of news reports, court cases, scholarly articles, online search engines, and commentaries relevant to regulations and reforms. The findings clarify the current climate of cryptocurrencies, their use in criminal activities and the complexities involved in regulating cryptocurrencies. Cryptocurrency criminal activities include tax evasion, money laundering, Ponzi schemes, the theft of cryptocurrencies and kidnapping for ransom.

The second article [37] analyzes ransomware attacks using cryptocurrency (holding it for ransom), investigating how regulations could contribute to fighting against such attacks. The research focuses on the regulatory approaches of Australia, Europe and the Americas, to determine whether they could feasibly address the risks posed by cryptocurrencies and implement their solutions on a global scale. The findings show that some sustained effort has been made to regulate cybercurrencies. Where regulation has been introduced, it has often proven too costly to implement, thereby stifling Bitcoin industry growth, or regulation was too ad hoc to function effectively. The main problem identified in association with cryptocurrency regulation is the low ability to identify and separate those using cryptocurrency for nefarious purposes from those that are using it for legitimate ones (see [38–40]).

The aforementioned literature review summarizes key aspects associated with the acceptance and adoption of cryptocurrency worldwide. Furthermore, the authors focused on articles explicitly dealing with the motivational factors and barriers associated with cryptocurrency use. At the same time, investment can be perceived as the use of cryptocurrency, as cryptocurrency within an investment is transferred, e.g., between wallets, and thus uses the relevant cryptocurrency technology. Using cryptocurrency technology for transactions helps raise awareness of cryptocurrency, which then affects the acceptance and adoption of cryptocurrency within society.

For this purpose, a bibliography survey was carried out using the citation database Scopus. The results were limited to the years 2016–2021 and the keywords used included motivation, cryptocurrency, barrier, and Bitcoin. Only three articles were found [23,41,42], dealing with motivational factors as well as barriers. In the past six years, more attention has been paid to motivational factors [43–49]. In contrast, barriers were not analyzed as much [50–52]. Despite this, it can be stated that motivational factors as well as barriers to using cryptocurrency constitute a topic gaining in popularity, and some of the aforementioned articles have been cited by dozens of other authors.

This article presents research following those aforementioned, expanding the knowledge base on the use of cryptocurrency by current younger generations, in connection with their tendency to take risks, i.e., generation-focused research. As stated above, the cryptocurrency market is naturally a high-risk one [1,11], and thus an investigation into the respondents' tendency to take risks is of significance. As it is exploratory research, based on the aforementioned outcomes, the research questions (RQ) were elaborated while adding hypotheses focused on generational characteristics. The authors formulated the following three RQs:

- RQ1: How is the tendency to take risks associated with selected motivational factors and barriers to investment in cryptocurrency, with respect to sex and selected generations?
- RQ2: What are the differences between men and women with respect to selected motivational factors and barriers to investment in cryptocurrency?
- RQ3: What are the differences between the representatives of Generations Y and Z with respect to selected motivational factors and barriers to investment in cryptocurrency?

The authors aimed to explore several generational characteristics associated with the demographic characteristics of the surveyed sample of respondents. Specialized literature points out the significant differences in the tendency of individuals to take risks [53]. The main differences are mostly associated with sex and age. Furthermore, the tendency to take risks is investigated in association with the level of education attained and income [53,54]. The authors have thus decided to focus the first two hypotheses on the dependency between the tendency to take risks and the education level attained and income of Generations Y and Z. These two hypotheses can be added subsidiarily to RQ1, and are formulated as follows:

- H1: With the representatives of Generations Y and Z, it applies that the higher the education attained, the higher the level of wariness when selecting means of investment (the lower the tendency to take risks).
- H2: With the representatives of Generations Y and Z, it applies that the higher the income, the greater the tendency to take risks.

Specialized literature focused on generation differences states an interesting difference between Generation Z and older generations. Income is not as important to Generation Z as it is to older generations, i.e., Generations X and Y [55]. On the other hand, the representatives of Generation Z find financial stability more important [56,57]. The aforementioned characteristics of Generation Z may be interesting in association with the high volatility of cryptocurrency and thus the instability of the cryptocurrency market. The authors thus decided to focus one hypothesis on the verification of generational differences in association with the instability of cryptocurrency rates. This hypothesis can be added subsidiarily to RQ3, and is formulated as follows:

• H3: Representatives of Generation Z are discouraged from investment in cryptocurrency by the rate of instability, more than the representatives of Generation Y.

## 3. Materials and Methods

An online survey was used to collect primary data (i.e., computer-assisted web interviewing or CAWI). The research was carried out at the end of 2019 among 468 adult representatives of Generations Y and Z in the Czech Republic. The division into two generations was made according to Andrade and Westover [31] for representatives of Generation Y (1977–1995) and representatives of Generation Z (1996 and later). The geographic scope was nationwide, and quota sampling was used. The socio-demographic characteristics (sex, generation, education) were dispersed in proportion to the distribution among the general population, based on data from the Czech Statistical Office of the Czech Republic [58] (see Table 1). Data on education was aggregated with the term "higher education", meaning that the respondent had studied at a higher professional school or a university. At the time of the data collection, the average net monthly income was EUR 1023 with a median of EUR 883. Due to this, the division mentioned below was applied where the income group above EUR 1141, with rare representation, was aggregated.

Demographics		Count	In Percentage
Con	Men	237	50.6%
Sex	Women	231	49.4%
	Generation Y	336	71.8%
Age	Generation Z	132	28.2%
Education	Lower	389	83.0%
	Higher	79	17.0%
	No income	50	10.6%
Net monthly income	EUR 1–570	133	28.3%
	EUR 571–1140	139	29.7%
	EUR 1141 and more	147	31.4%

Table 1. Composition of respondents.

The statistical analysis of the collected primary data was performed using IBM SPSS Statistics 24 software (Armonk, NY, USA). When examining relationships between two variables, contingency table analyses were performed, where the chi-square test statistic *G* and *p*-value were calculated (the significance level was 5%). In the case of a significant relationship, the value of the Pearson contingency coefficient *C* was also computed.

Within the survey described below, the authors did not distinguish between the two main groups of cryptocurrencies marked as coins and tokens. All were marked aggregately as cryptocurrencies (see the cryptocurrency definition in Section 1). The survey was focused on three areas of interest: (a) the tendency to take risks, (b) barriers to investment in cryptocurrency, and (c) motivations for investment in cryptocurrency. The individual questions and their evaluation methods are described in more detail below.

The tendency to take risks (a) was measured by means of the risk propensity scale (RPS) according to Meertens and Lion [10]. RPS was developed for measuring the general tendency to take risks. For this purpose, seven statements have been elaborated, taking into consideration various risk aspects. RPS consists of the following general statements concerning risk-taking:

- 1. Safety first.
- 2. I prefer to avoid risks.
- 3. I do not take risks with my health.
- 4. I take risks regularly.
- 5. I really dislike not knowing what is going to happen.
- 6. I usually view risks as a challenge.
- 7. I see myself as a risk-taker.

All statements were evaluated on a 9-point scale, where 1 = strongly disagree and 9 = strongly agree. Statements 1, 2, 3, and 5 are put inversely, i.e., for a positive approach to taking risks, values below 5 are expected; as opposed to that, for questions 4, 6, and 7, values above 5 are expected. As a result, a higher score of the RPS indicates a greater tendency to take risks. According to Meertens and Lion [10], the common index value is between 4.40 and 4.90. In this article, an index value higher than 5 indicates a positive approach to risk-taking.

During the evaluation, the scores for statements 1, 2, 3, and 5 were put inversely following the evaluation scale. Subsequently, an average value was calculated from all the assessments. For a resulting value below 5, the respondent had a lesser tendency to take risks; as opposed to that, a respondent reaching a value above 5 had a greater tendency to take risks.

As for barriers to investment in cryptocurrency (b), the following question was raised: Which barriers do you find discouraging with respect to investment in cryptocurrency? Respondents were offered the following statements to choose from:

- Poor return on investment.
- Instability of the cryptocurrency market.

- Lack of information on investment (specific cryptocurrency).
- Lack of investment experience.
- Negative experience with investment in cryptocurrency.
- Poor investment security (the possibility of rapid decrease in cryptocurrency value by dozens of percents).
- Low income (i.e., no funds available for investment).

Each of these seven statements was evaluated by the respondents using a 4-point scale: not discouraging, a little discouraging, somewhat discouraging, strongly discouraging. Upon the evaluation, the first two options were aggregated to "less discouraging" and the other two to "more discouraging" of investment in cryptocurrency. The evaluation of the dependency between the tendency to take risks and the barriers to investment in cryptocurrency was performed from the perspective of a different attitude, depending on sex and generation.

As for the motivation to invest in cryptocurrency (c), the following question was focused on the subject: Which advantages of cryptocurrencies would encourage you to make an investment? Respondents were offered the following statements to choose from:

- Cryptocurrency as a long-term value preserver, e.g., suitable for pension savings.
- Rapid increase of cryptocurrency value.
- High volatility of cryptocurrency prices, suitable for repeated speculative trading.
- The opportunity to carry out fast and cheap transactions by means of cryptocurrency.
- Impossibility of cryptocurrency devaluation by hyperinflation or state bankruptcy.
- Cryptocurrency offers anonymity and difficulty of confiscation, meaning that a state cannot confiscate the assets easily or an enforcement officer may not simply perform an enforcement of a judgment related to cryptocurrency.
- Non-censorship of cryptocurrency, i.e., no intermediary (e.g., a bank) can refuse to carry out a payment.

Each of these seven statements was evaluated by the respondents using a 4-point scale: not encouraging, a little encouraging, somewhat encouraging, strongly encouraging. Upon the evaluation, the first two options were aggregated to "less encouraging" and the other two to "more encouraging" for investment in cryptocurrency. The evaluation of the dependency between the tendency to take risks and the motivation to invest in cryptocurrency was performed from the perspective of a different attitude depending on sex and generation.

## 4. Results

The assumption of this analysis was the fact that people with a particular tendency to take risks will have a more proactive and open approach to investment in cryptocurrency. This is due to the cryptocurrency market being considered as a young and extremely high-risk one [1]. The authors thus focused specifically on the motivational factors and barriers to investment in people that have a tendency to take risks. Firstly, this article is focused on the dependency between a tendency to take risks and barriers to investment in cryptocurrency, with respect to sex and selected generations. Furthermore, the authors provide details on the dependency between a tendency to take risks and motivational factors to investment in cryptocurrency, with respect to sex and selected generations.

#### 4.1. Barriers to Investment in Cryptocurrency

The research was dedicated to the respondents' barriers to investment in cryptocurrency (see also Section 3). Three perspectives are introduced below:

• **Perspective No. 1:** Firstly, an evaluation is performed with regard to the dependency between the barriers and the tendency to take risks, ascertained in compliance with the RPS method, with women and men, and subsequently with the representatives of Generations Y and Z.

- **Perspective No. 2:** Furthermore, differences are introduced with regard to the attitude of respondents. divided by sex and generations, from the perspective of their tendency to take risks. The authors intended to ascertain whether a certain barrier is more discouraging for respondents that have a tendency to take risks or for those without such a tendency.
- **Perspective No. 3:** Finally, the results, summarized according to sex and generation, are introduced where the fact whether or not a respondent has a tendency to take risks is not taken into consideration.

### 4.1.1. Perspective No. 1: Barriers According to Sex and Generation

The results of the statistical tests are arranged in Table 2. For women, a moderately strong dependence was found between the instability of the market and a tendency to take risks, and between lack of investment experience and a tendency to take risks. An absolute majority of women (98.8%) that have a tendency to take risks are discouraged from investment in cryptocurrency by market instability. Similar results show in the event of a lack of investment experience, where this barrier discourages 97% of women that have a tendency to take risks from investment in cryptocurrency.

**Table 2.** The table shows the statistically significant dependence of individual barriers with respect to the tendency to take risks and generations or sex. *MSD* = moderately strong dependence; *WD* = weak dependence.

Barrier	Men	Women	Generation Y	Generation Z
Poor return on investment	Х	WD, G = 6.055, p = 0.014, C = 0.162	WD, G = 4.55, p = 0.033, C = 0.116	х
Instability of the cryptocurrency market	Х	MSD, G = 36.484, p = 0.000, C = 0.369	WD, G = 11.933, p = 0.001, C = 0.185	Х
Lack of information on investment (specific cryptocurrency)	Х	Х	Х	Х
Lack of investment experience	WD, G = 5.104, p = 0.024, C = 0.145	MSD, G = 27.111, p = 0.000, C = 0.324	MSD, G = 25.986, p = 0.000, C = 0.268	Х
Negative experience with investment in cryptocurrency	Х	Х	Х	Х
Poor investment security (possibility of downswing in value by dozens of percents)	Х	Х	Х	Х
Low income (i.e., no funds available for investment)	WD, G = 4.307, p = 0.038, C = 0.134	Х	WD, G = 5.294, p = 0.021, C = 0.125	Х

Furthermore, a weak dependency was found in women that have a tendency to take risks and a poor return on investment. Then, 89.2% of women that have a tendency to take risks are discouraged from investment in cryptocurrency by a poor return on investment. Despite the potential assumption that women with a tendency to take risks would be more discouraged from investment in cryptocurrency by such barriers, it is not so. Market instability (75%), lack of investment experience (75%) and a poor return on investment (76.6%) constitute discouraging factors for fewer women that do not have a tendency to take risks.

It may be concluded from the aforementioned results that women with a tendency to take risks realize the risks associated with cryptocurrency, considering their insufficient investment experience, the market instability and a supposed poor return on investment. Therefore, the aforementioned barriers are considered more important by women that do not have a tendency to take risks.

From the perspective of barriers to investment in cryptocurrency for men, a weak dependence was found between the tendency to take risks and a lack of investment experience or their low income. Then, 85.9% of men that have a tendency to take risks are discouraged from investing in cryptocurrency by their lack of investment experience. Similar results are found with men with a low income, or more precisely in a situation where the respondent has no funds available for investment. In this case, 73.6% of men that have a tendency to take risks are discouraged from investment in cryptocurrency by their low income, or by the fact that they have no funds available for investment. It must be noted with respect to this factor that a lack of investment experience (74.2%) and low income or lack of available funds (85.2%) are factors discouraging a similar percentage of men that do not have a tendency to take risks. Even in this case, men tend to be more careful about considering the risks associated with investing in cryptocurrency; however, men do not have this tendency as strongly as women. Compared to women and the barriers in question, there is not much difference between men that have a tendency to take risks and those without such a tendency.

Taking into consideration the barriers to investment in cryptocurrency regarding the representatives of Generations Y and Z, a certain dependence has been ascertained that only relates to Generation Y. As for the representatives of Generation Z, no dependency was ascertained. A moderately strong dependence was found between the tendency of the representatives of Generation Y to take risks and their lack of investment experience. Our findings show that 92.8% of representatives of Generation Y with a tendency to take risks are discouraged from investment in cryptocurrency by their lack of investment experience.

With the representatives of Generation Y, there is a weak dependence between their tendency to take risks and a poor return on investment, market instability and the respondents' low income. Furthermore, respondents belonging to Generation Y that have a tendency to take risks are discouraged by the following barriers to investment in cryptocurrency: poor return on investment (87.5% respondents), market instability (92.4% respondents), and low income or lack of funds available (83.9% respondents).

4.1.2. Perspective No. 2: Differences in Attitude from the Perspective of the Tendency to Take Risks

Table 3 presents another perspective of the differences in attitude of respondents that have a tendency to take risks and those without such a tendency. Positive values refer to by how many more percentage points there are respondents with a tendency to take risks who are discouraged by the given barrier, compared to those without such a tendency. Negative values refer to the fact that the given barrier is more discouraging to respondents without a tendency to take risks. It emerges from the results that lack of investment experience serves as a discouraging factor for more respondents that have a tendency to take risks, whether this concerns men, women, or the representatives of Generations Y and Z.

As for women, the greatest differences are found with the following barriers: poor return on investment, market instability and lack of investment experience, where such barriers serve as a factor discouraging a higher percentage of women with a tendency to take risks from investment. As for men, the greatest differences are found with two particular barriers. Whereas the lack of investment experience discourages a higher percentage of men that have a tendency to take risks, by contrast, the respondents' low income discourages more men that do not have a tendency to take risks. Comparing the differences between men and women, the smallest differences in attitude can be identified with respect to two barriers: a lack of information on investment, and negative experience with investment in cryptocurrency. **Table 3.** The values below refer to the difference between respondents having and not having a tendency to take risks in percentage points, and to the given discouraging barrier. Positive values refer to by how many more percentage points there are respondents with a tendency to take risks who are discouraged by the given barrier, compared to those without such a tendency. A red-white-blue scale is selected for the entire table. Statistically significant values at the 5% significance are highlighted in bold.

Barrier	Men	Women	Generation Y	Generation Z
Poor return on investment	0.68	12.66	8.93	-1.97
Instability of the cryptocurrency market	-1.60	23.80	12.95	5.22
Lack of information on investment (specific	4 30	1 /1	1 19	2 72
cryptocurrency)	-4.50	-1.41	-4.49	2.12
Lack of investment experience	11.75	22.00	20.50	9.73
Negative experience with investment in	196	5.02	4.00	8 70
cryptocurrency	4.00	5.05	4.90	0.70
Poor investment security (possibility of rapid	0.74	1.67	6.25	8.00
decrease in value by dozens of percents)	9.74	-1.07	0.23	0.09
Low income (i.e., no funds available for	11 59	1.46	0.00	11.63
investment)	-11.56	1.40	-9.00	11.05

As for the representatives of Generation Y, lack of cryptocurrency investment experience and the instability of the cryptocurrency market constitute barriers more discouraging for those that have a tendency to take risks. However, low income is a factor more frequently discouraging those respondents without a tendency to take risks. As for the representatives of Generation Z, the results indicate a greater difference with respect to the following barriers: lack of investment experience, negative experience with investment in cryptocurrency, poor investment security and low income. These barriers serve as a factor discouraging more frequently those respondents that have a tendency to take risks. The most interesting differences between Generation Y and Z concern two barriers: poor return on investment and low income. Especially with the latter barrier, a big difference can be seen in attitude, where the representatives of Generation Z that have a tendency to take risks are discouraged by this barrier more frequently than are the representatives of Generation Y.

#### 4.1.3. Perspective No. 3: Overall Perspective Not Considering the Tendency to Take Risks

Table 4 represents the overall perspective. Whereas the results above were more focused on the tendency to take risks, the tendency to take risks is not taken into consideration in this table. The table indicates the percentage of respondents (categories of men, women, representatives of Generations Y and Z) who are discouraged from investment in cryptocurrency by the given barriers. It can be seen from the presented results that the main factor discouraging from investment in cryptocurrency is the lack of information on investment (given cryptocurrency), whether this concerns men, women or the representatives of Generations Y or Z. As opposed to that, negative experience with investment in cryptocurrency constitutes the most minor barrier.

The results found in Table 4 indicate the differences in the attitudes of men and women. From the perspective of barriers, the main differences are found with respect to poor investment security and low income, which would discourage a much higher percentage of women than men. Leaving aside the aforementioned barriers—lack of information on investment and former negative experience with investment in cryptocurrency, where men and women have the same attitude—the factor that is the most discouraging from investment in cryptocurrency for men is the potential poor return on investment and the instability of the cryptocurrency market. Conversely, men are least discouraged by poor investment security. Women are most discouraged from investment in cryptocurrency by two already mentioned barriers: poor investment security and low income. From the intergenerational perspective, no significant differences have been identified.

Barrier	Men	Women	Generation Y	Generation Z
Poor return on investment	85.7%	85.7%	84.5%	88.6%
Instability of the cryptocurrency market	84.4%	92.2%	88.1%	88.6%
Lack of information on investment (specific cryptocurrency)	89.5%	97.4%	95.2%	89.4%
Lack of investment experience	81.5%	90.9%	86.0%	87.2%
Negative experience with investment in cryptocurrency	60.3%	69.3%	67.9%	56.1%
Poor investment security (possibility of downswing in value by dozens of percents)	75.4%	95.7%	87.2%	81.2%
Low income (i.e., no funds available for investment)	78.0%	94.8%	86.9%	85.6%
Mean	79.3%	89.4%	85.1%	82.4%
Standard deviation	9.6%	9.7%	8.3%	11.9%

**Table 4.** Percentage of respondents discouraged from investment in cryptocurrency by the given barrier. The table includes respondents having and not having a tendency to take risks. The respondents are divided into the following categories: men, women, Generation Y, and Generation Z, and a green-yellow-red scale is selected for the entire table.

## 4.2. Motivation for Investment in Cryptocurrency

In this section, the authors analyze the motivational factors of respondents with respect to investment in cryptocurrency (see Section 3). Three perspectives are introduced below:

- **Perspective No. 1:** Firstly, an evaluation is performed with respect to the dependency between the motivational factors and the tendency to take risks, ascertained, in compliance with the RPS method, with women and men and subsequently with the representatives of Generations Y and Z.
- **Perspective No. 2:** Furthermore, differences are introduced with respect to the attitude of respondents, divided by sex and generations, from the perspective of their tendency to take risks. The authors intended to ascertain whether a certain motivational factor encourages more those respondents that have a tendency to take risks or those not having such a tendency.
- **Perspective No. 3:** Finally, results summarized according to sex and generation are introduced where the fact whether or not a respondent has a tendency to take risks is not taken into consideration.

## 4.2.1. Perspective No. 1: Motivational Factors According to Sex and Generation

The results of the statistical tests are arranged in Table 5. From the perspective of women, a moderately strong dependence can be found between the tendency to take risks and the impossibility of cryptocurrency devaluation by hyperinflation or state bankruptcy. For women with a tendency to take risks, the aforementioned aspect serves as a motivational factor to invest in cryptocurrency for 94% of respondents. Furthermore, a weak dependence was found in women between the tendency to take risks and:

- High volatility of prices suitable for repeated speculative trading; in this case, the given aspect encourages 72.5% of women that have a tendency to take risks.
- Anonymity and difficulty of confiscation meaning that a state cannot confiscate the assets easily or an enforcement officer may not simply perform enforcement of a judgment related to cryptocurrency; in this case, the given aspect encourages 83.9% of women that have a tendency to take risks.
- Non-censorship where no intermediary (e.g., a bank) can refuse to carry out a payment; in this case, the given aspect encourages 83.8% of women that have a tendency to take risks.

Motivational Factor	Men	Women	Generation Y	Generation Z
Cryptocurrency being a long-term value preserver, e.g., suitable for pension savings	WD, G = 4.866, p = 0.027, C = 0.142	Х	Х	WD, G = 4.544, p = 0.033, C = 0.182
Rapid increase of cryptocurrency value	Х	Х	Х	Х
High volatility of cryptocurrency prices suitable for repeated speculative trading	х	WD, G = 12.371, p = 0.000, C = 0.231	WD, G = 13.75, p = 0.000, C = 0.199	Х
Opportunity to carry out fast and cheap transactions by means of cryptocurrency	Х	Х	Х	х
Impossibility of cryptocurrency devaluation by hyperinflation or state bankruptcy	Х	MSD, G = 17.186, p = 0.000, C = 0.264	WD, G = 8.21, p = 0.004, C = 0.154	Х
Cryptocurrency anonymity and difficulty of confiscation, meaning that a state cannot confiscate the assets easily or an enforcement officer may not simply perform an enforcement of a judgment related to cryptocurrency	х	WD, G = 6.61, p = 0.010, C = 0.166	Х	х
Non-censorship of cryptocurrency, i.e., no intermediary (e.g., a bank) can refuse to carry out a payment	Х	WD, G = 4.217, p = 0.040, C = 0.134	Х	Х

**Table 5.** The table shows the statistically significant dependence of individual motivational factors with respect to the tendency to take risks and generations or sex. *MSD* = moderately strong dependence; *WD* = weak dependence.

For men, a weak dependence was ascertained between the tendency to take risks and perceiving cryptocurrency as a long-term value preserver, e.g., suitable for pension savings. As for men that have a tendency to take risks, the aforementioned aspect serves as a motivational factor for investment in cryptocurrency for 79.2% of respondents.

Considering the motivational factors of the representatives of Generation Y, the authors found a weak dependence between the tendency to take risks and the high volatility of prices suitable for speculative trading, and the impossibility of cryptocurrency devaluation by hyperinflation or state bankruptcy. The high volatility of prices, along with the possibility of speculative trading, serves as a motivational factor for 71.3% of the representatives of Generation Y that have a tendency to take risks. The impossibility of cryptocurrency devaluation by hyperinflation or state bankruptcy encourages 90.1% of the representatives of Generation Y that have a tendency to take risks.

As for the representatives of Generation Z, only a weak dependence was ascertained between the tendency to take risks and perceiving cryptocurrency as a long-term value preserver. The aforementioned factor encourages 88% of respondents from Generation Z that have a tendency to take risks.

4.2.2. Perspective No. 2: Differences in Attitude from the Perspective of the Tendency to Take Risks

Table 6 presents another perspective of the differences in attitude of respondents that have a tendency to take risks and those without such a tendency. Positive values refer to by how many percentage points there are respondents that have a tendency to take risks who are encouraged by the given factor, compared to those without such a tendency. Negative values refer to the fact that the given invoice is more encouraging to respondents without a tendency to take risks. It emerges from the results that the high volatility of cryptocurrency prices suitable for speculative trading serves as a more encouraging factor to respondents without a tendency to take risks, whether this concerns men, women or the representatives of Generations Y and Z.

**Table 6.** The values below refer to the difference between respondents with and without a tendency to take risks in percentage points and to the given encouraging factor. Positive values refer to by how many more percentage points there are respondents with a tendency to take risks who are encouraged by the given factor, compared to those without such a tendency. A red-white-blue scale is selected for the entire table. Statistically significant values at the 5% significance are highlighted in bold.

Motivational Factor	Men	Women	Generation Y	Generation Z
Cryptocurrency being a long-term value preserver, e.g., suitable for pension savings	12.90	2.79	8.42	14.87
Rapid increase of cryptocurrency value	-8.26	1.09	-2.72	-3.49
High volatility of cryptocurrency prices suitable for repeated speculative trading	-7.95	-21.29	-17.99	-3.15
Opportunity to carry out fast and cheap transactions by means of cryptocurrency	-0.74	0.50	0.40	4.13
Impossibility of cryptocurrency devaluation by hyperinflation or state bankruptcy	-2.51	19.41	11.37	-0.87
Cryptocurrency anonymity and difficulty of confiscation, meaning that a state cannot confiscate the assets easily or an enforcement officer may not simply perform an enforcement of a judgment related to cryptocurrency	0.42	15.20	6.70	3.21
Non-censorship of cryptocurrency, i.e., no intermediary (e.g., a bank) can refuse to carry out a payment	-2.96	11.96	4.91	-2.72

In the case of women, the greatest differences have been found with respect to three factors: impossibility of cryptocurrency devaluation by hyperinflation or state bankruptcy, anonymity and difficulty of confiscation, and non-censorship where the women with a tendency to take risks regarding investment are more encouraged to invest by these factors. The situation is quite the opposite with respect to women and the high volatility of cryptocurrency prices, where this factor encourages women without a tendency to take risks. As for men, differences of significance have been found with respect to three motivational factors. Whereas cryptocurrency being a long-term value preserver encourages more frequently those men that have a tendency to take risks, conversely, the speed of increase in cryptocurrency value along with the high volatility of cryptocurrency prices constitutes more encouraging factors to men without a tendency to take risks. Comparing the differences between men and women, differences of significance can be found concerning three motivational factors: the impossibility of cryptocurrency devaluation by hyperinflation or state bankruptcy, cryptocurrency anonymity and difficulty of confiscation, and its non-censorship. As for the aforementioned motivational factors, the ratio of men encouraged to invest while having a tendency to take risks is balanced. On the other hand, as for women, there is a higher percentage of women that have a tendency to take risks who are more frequently encouraged by such factors.

As for the representatives of Generation Y, the factors "cryptocurrency being a longterm value preserver" and "impossibility of cryptocurrency devaluation by hyperinflation or state bankruptcy" are more frequently encouraging to those with a tendency to take risks. Conversely, the high volatility of cryptocurrency prices is more encouraging to respondents that do not have a tendency to take risks.

Regarding the representatives of Generation Z, the greatest differences have been found only with the factor "cryptocurrency being a long-term value preserver", which is more frequently encouraging to respondents that have a tendency to take risks. The most interesting differences between Generation Y and Z concern two motivational factors: the high volatility of cryptocurrency prices and the impossibility of cryptocurrency devaluation by hyperinflation or state bankruptcy. While the ratio of representatives of Generation Z with respect to their tendency to take risks is balanced, the above applies to the representatives of Generation Y.

## 4.2.3. Perspective No. 3: Overall Perspective, Not Considering the Tendency to Take Risks

Table 7 represents the overall perspective. Whereas the results above were more focused on the tendency to take risks, the tendency to take risks is not taken into consideration in this table. Table 7 indicates the percentage of respondents (categories of men, women, representatives of Generations Y and Z) who are encouraged to invest in cryptocurrency by the aforementioned motivational factors. It can be seen from the presented results that the most important factor encouraging investment in cryptocurrency is the speed of increase in cryptocurrency value, whether this concerns men, women or the representatives of Generations Y or Z. On the other hand, the least encouraging factor is the opportunity to use the high volatility of cryptocurrency for speculative trading.

**Table 7.** Percentage of respondents encouraged to invest in cryptocurrency by the given factor. The table includes respondents that have and do not have a tendency to take risks. The respondents are divided into the following categories: Men, Women, Generation Y, and Generation Z, and the green-yellow-red scale is selected for the entire table.

Motivational Factor	Men	Women	Generation Y	Generation Z
Cryptocurrency being a long-term value preserver, e.g., suitable for pension savings	74.4%	92.6%	83.3%	83.5%
Rapid increase of cryptocurrency value	86.9%	96.1%	91.9%	90.1%
High volatility of cryptocurrency prices suitable for repeated speculative trading	78.0%	78.4%	77.3%	80.3%
Opportunity to carry out fast and cheap transactions by means of cryptocurrency	81.4%	95.7	88.7%	87.9%
Impossibility of cryptocurrency devaluation by hyperinflation or state bankruptcy	86.1%	88.7%	86.3%	89.4%
Cryptocurrency anonymity and difficulty of confiscation, meaning that a state cannot confiscate the assets easily or an enforcement officer may not simply perform an enforcement of a judgment related to cryptocurrency	85.7%	79.7%	82.1%	84.7%
Non-censorship of cryptocurrency, i.e., no intermediary (e.g., a bank) can refuse to carry out a payment	83.5%	80.5%	81.0%	85.6%
Mean	82.3%	87.4%	84.4%	85.9%
Standard deviation	4.7%	7.8%	4.9%	3.5%

The results found in Table 7 indicate the differences in attitude between men and women. Men and women are highly encouraged to invest in cryptocurrency by the speed of the increase in cryptocurrency value. Men are mostly encouraged to invest in cryptocurrency by the low possibility of devaluation by hyperinflation or state bankruptcy, and by cryptocurrency's anonymity and difficulty of confiscation by the state or an enforcement officer. As opposed to that, one factor that is the least encouraging to investment is the opportunity to use cryptocurrency as a long-term value preserver, which is contrary to the women's attitude. Women are mostly encouraged to invest in cryptocurrency by the fact that cryptocurrency provides the opportunity to use cryptocurrency for speculative trading, its anonymity, the difficulty of confiscation, and non-censorship, where no intermediary can refuse to carry out a payment. From the intergenerational perspective, no significant differences have been identified.

#### 5. Discussion and Conclusions

This section aims to summarize the key results of the exploratory research. Firstly, Section 5.1 provides the answers to the research questions and the hypotheses evaluation. Subsequently, Section 5.2 introduces a wider discussion concerning the technological aspects and presents conclusions for practice. Rather than building a theoretical base concerning a certain phenomenon, this exploratory research aims to point out the research

gaps and the opportunities for further research. Section 5.3 then discusses the findings of the exploratory research with the aim of providing recommendations for further explanatory research. The limits concerning the research performed are also provided in the aforementioned section.

#### 5.1. Main Findings and Answers to Research Questions

Following the research findings, the response to RQ1 is as follows. Despite the fact that Section 4.1 can identify certain differences between the attitudes of the representatives of Generations Y and Z to investment barriers in connection with their tendency to take risks, these differences tend to only be marginal. The only exception to this is the barrier comprising low income. Compared to Generation Y, the representatives of Generation Z that have a tendency to take risks are discouraged from investment more significantly by low income, or more precisely by the lack of available funds. The aforementioned finding may be associated with the preference for financial stability of the representatives of Generation Z, compared to older generations [56,57]. Other generational differences have been ascertained in two motivational factors. As for the high volatility of cryptocurrency prices, with the representatives of Generation Y, the respondents without a tendency to take risks were encouraged to invest much more frequently than those with that tendency. The other motivational factor includes the impossibility of cryptocurrency devaluation by hyperinflation or state bankruptcy—for the representatives of Generation Y, the respondents that have a tendency to take risks were encouraged to invest much more frequently.

Provided that a certain factor constitutes encouragement for the respondents representing Generation Z, the percentage of respondents that have and do not have a tendency to take risks is nearly equal. The only exception to this is the factor "cryptocurrency being a long-term value preserver"; this factor mainly encourages those respondents with a tendency to take risks.

The attitudes of men and women also vary. Generally, women are discouraged by investment barriers more frequently than are men. There is a significant percentage of women that have a tendency to take risks who are discouraged from investment by a certain barrier. It may, thus, be concluded that women with a tendency to take risks realize the risks associated with cryptocurrency, considering their insufficient investment experience, market instability and supposed poor return on investment. Similar findings have been ascertained regarding motivational factors, where women are encouraged by a certain motivational factor more frequently than are men.

Provided that the respondents are discouraged from investment by a certain barrier, the smallest differences and equal attitude from the perspective of the tendency to take risks can be found in men as well as women concerning the following barrier, that of a lack of information on investment and negative experience with investment in cryptocurrency. As for motivational factors, the smallest differences and similar attitudes from the perspective of the tendency to take risks can be found in men as well as women, concerning the motivational factor regarding the opportunity to carry out fast and cheap transactions by means of cryptocurrency.

Looking closer at the barriers, motivational factors, and respondents encouraged or discouraged thereby, two general conclusions can be made with respect to men, women, or the representatives of Generations Y and Z. The first conclusion is that the barrier "lack of investment experience" discourages more frequently those respondents that have a tendency to take risks. The second conclusion is that the motivational factor "high volatility of cryptocurrency prices" is more encouraging to respondents that do not have a tendency to take risks.

Two hypotheses were added subsidiarily to RQ1, with the following conclusion:

• H1: Regarding the representatives of Generations Y and Z, it applies that the higher the level of education attained, the higher the level of wariness of selecting a means of investment (the lower the tendency to take risks). Neither generation links the education attained to their wariness when choosing an investment method—generation

Y (*G* = 2.756, *p* = 0.097, *C* = 0.090); generation Z (*G* = 0.851, *p* = 0.356, *C* = 0.080). The hypothesis was not confirmed.

• H2: With the representatives of Generations Y and Z, it applies that the higher the income, the greater the tendency to take risks. Neither generation links the tendency to take risks to the income—generation Y (G = 2.756, p = 0.097, C = 0.090); generation Z (G = 0.851, p = 0.356, C = 0.080). The hypothesis was not confirmed.

Furthermore, the response to RQ2 is as follows: From the perspective of differences in attitude of both sexes to the barriers to investment in cryptocurrency, the main differences include the poor investment security (possibility of rapid decrease in cryptocurrency value) and low income (or lack of available funds). These barriers are found to be much more discouraging for women than men. As for the motivational factors encouraging men to invest in cryptocurrency, the least encouraging factor is the possibility to use cryptocurrency as a long-term value preserver, which is contrary to the attitude of women. Furthermore, small differences have been ascertained for the motivational factor concerning cryptocurrency anonymity and the difficulty of confiscation, where men find this factor more encouraging. In contrast, women tend to be more encouraged to invest in cryptocurrency through the opportunity to carry out fast and cheap transactions.

The response to RQ3 is as follows: From the intergenerational perspective, no significant differences have been identified. It must be noted that both generations are, at least at this stage, very close with respect to their positive attitude to using ICT in their everyday life [59]. This result is, thus, not surprising. However, along with further research concerning Generation Z and its classification among fully economically active generations, it may be expected in the future that the attitudes of both generations will become more and more divergent.

One hypothesis was added subsidiarily to RQ3 with the following conclusion:

• H3: Representatives of Generation Z are discouraged from investment in cryptocurrency by the rate of instability more frequently than are the representatives of Generation Y. The hypothesis was confirmed. The instability of the cryptocurrency rate serves as a more discouraging factor for the representatives of Generation Z; however, the dependence is very weak (G = 5.239, p = 0.022, C = 0.105). This conclusion is consistent with studies performed in the past [56,57] concluding that financial stability is more important to the representatives of Generation Z than for the older generations.

## 5.2. Main Conclusions for Practice

From the perspective of sociotechnical interaction, interestingly, not only the representatives of younger generations but also older generations are open to using cryptocurrency technology (within the meaning of funds or a value preserver) [13,15,60,61]. Despite the fact that, in the past, the successful implementation of new technologies required a kind of maturity in the younger generation, e.g., computerization in the 1980s and 1990s, where, although available to baby boomers, PCs were fully used only by Generation X, the real increase in work productivity associated with computerization and informatization was at an organizational level [62]—the cryptocurrency technology already has its motivated users. From the sociotechnical perspective, especially the development of a technological component is of the highest significance right now, as the social component of the sociotechnical system of cryptocurrency is perceived positively [63].

Due to the poor maturity of cryptocurrency technology, there are great opportunities for companies that can get actively involved in one of the cryptocurrency ecosystems. Such opportunities are currently associated with their fast adoption by ordinary people and other organizations. Adoption by companies is also supported by the fact that the number of corporations using cryptocurrency for payment is constantly increasing [64]. The cryptocurrency technology is currently undergoing the experimentation phase, or limitedscale production [65]. The so-called blue ocean strategy is thus not involved [66]; however, neither is the purely red ocean strategy, with a high-level competition between companies or products. A lower competitor pressure is also supported by the interoperability between various kinds of blockchain. Cryptocurrency solutions of a similar focus can cooperate and profit from mutual advantages. On the other hand, one must bear in mind that the poor maturity of the entire cryptocurrency industry is associated with other risks (e.g., the future failure of a large number of solutions in practice).

The main recommendation for practice arising from the findings of this exploratory research is based on the theory of domestication [67,68]. Domestication perceives information and communication technologies as an ensemble of meanings created beforehand by advertising, design and formal (media) outputs, as well as informal (e.g., verbal) communication. This theoretical approach is focused on development toward the acceptance of the given artifact through the consumer nature of the society, taking into particular consideration the links between the artifacts, human beings, and the (media) environment where this process takes place. In the past five years or so, we can see significant progress in the meaning of cryptocurrency to ordinary people. In the past, cryptocurrency used to be perceived as a curiosity, and the geeks' technology [21], veiled in mystery and, thus, unavailable to ordinary people. Nowadays, this technology is becoming part of various new technologies and is thus more available and common for ordinary people—it becomes a background part of our lives (see [69]). Such new solutions based on cryptocurrency technology are user-friendly to ordinary people these days.

Arising from the domestication theory, the main recommendation for companies creating new solutions based on cryptocurrency technology is as follows. From the perspective of individual significance for potential users, information in an available form is of high importance to various readers, e.g., some require a summary of key points, some prefer a comparison with other solutions.

The main factor discouraging investment in cryptocurrency is the lack of information on investment (given cryptocurrency), whether this concerns men, women, or the representatives of Generations Y or Z. Information in an available form may accelerate further the adoption of cryptocurrency technology among ordinary people and help companies developing a certain cryptocurrency ecosystem, as well as those using this cryptocurrency ecosystem for their own solutions or users. In this regard, the continuous open attitude to cryptocurrency by the representatives of Generations Y and Z can be interesting, as these representatives are the least discouraged from investment in cryptocurrency by their prior negative experience of investment in cryptocurrency.

From a strategic point of view, what the companies developing a certain cryptocurrency ecosystem may find important is the fact that its high volatility, suitable for speculative trading, is the least encouraging factor for the representatives of Generations Y and Z to invest in cryptocurrency. Conversely, the speed of increase in cryptocurrency value serves as the most encouraging factor to them. Various cryptocurrency ecosystems may at least partially affect the market of their given cryptocurrency (cryptocurrency volatility and value), e.g., token burning, media tools. The companies should thus attempt to lower the volatility by any available means, at least within the higher time frameworks (days and weeks), so that no high volatility is found in such frameworks. This includes, for instance, Binance Coin and its token burning strategy [70].

## 5.3. Main Conclusions for Science and Future Research Directions

Cryptocurrency is an area undergoing dynamic development. Despite the fact that the first cryptocurrency Bitcoin was only introduced in 2008 and launched in 2009 [71], in 2021 there are thousands of cryptocurrencies all over the world [2]. The group of typical cryptocurrency users is changing at an identically dynamic pace. The first two exploratory questionnaire surveys [21,22] were dedicated to the characteristics of Bitcoin users. The respondents of such surveys came from the cryptocommunity of those days. A typical Bitcoin user was a US man, aged 32, with a libertarian political stance. Surprisingly, the respondents of the first survey were represented over 95% by men [21].

Even these days, women are not particularly interested in Bitcoin, which makes cryptocurrency a predominantly male domain. For instance, the findings of the professional research carried out by the trading company eToro show that only "15% of Bitcoin traders are women, highlighting a massive gender imbalance in the world of cryptocurrency" [72]. Even the study by Bannier et al. [73] points out a significant gender gap in Bitcoin literacy, indicating, using nationally representative US data, that women tend to have less information about Bitcoin than men.

The findings of this present study have also shown significant differences in the attitudes of men and women (see Section 5.1). It can be stated that women are more sensitive about their current financial possibilities than men, and that they prefer a stable cryptocurrency rate. Surprisingly, there is also a difference between men and women in their perception of cryptocurrency as a long-term value preserver (e.g., cryptocurrency being suitable for pension savings). This tends to be a more significant motivational factor for women (92.6%) than men (74.4%). In this regard, women tend to be more careful about their investment in cryptocurrency than men; women also prefer a long-term perspective of their investment.

The authors assume that further research should be dedicated to a better understanding of the gender differences associated with cryptocurrency. In particular, women's attitudes to various aspects of cryptocurrency should be described in more detail, identifying such aspects that women find attractive. Such research and its use in practice could contribute to better acceptance and the subsequent greater adoption of cryptocurrency by women. Cryptocurrency should be accessible to everyone; it should not be an area dominated by men only.

In the present study, an interesting discrepancy was found between our assumptions and the achieved outcome. The authors assumed a more open and proactive approach to investment by people that have a tendency to take risks. Despite the fact that the high volatility of the cryptocurrency market, suitable for speculative trading, represented the least encouraging factor from the perspective of sex and generation when taking into consideration the tendency to take risks, some interesting findings were made. Surprisingly, if this factor was encouraging the respondents, it concerned those who did not have a tendency to take risks, in particular. Unless further explanatory research is carried out, one can only speculate on why such outcomes were found. The aforementioned discrepancy could become the target of further explanatory research.

This exploratory research did not ascertain any differences of significance concerning the attitude of the representatives of Generations Y and Z. In the future, this conclusion should be verified by means of performing further exploratory research. For instance, such research should be carried out once the entire Generation Z becomes economically active. In association with the generation research, it could be interesting to continue explanatory research concerning the acceptance and adoption of cryptocurrency technology, e.g., using a technology acceptance model and its improvements or extensions, such as the unified theory of acceptance and the use of technology [74,75].

Finally, it must be noted that the outcomes of this study are based on a questionnaire survey carried out at the end of 2019, which, from the perspective of cryptocurrency price development, can be marked as a calm period. The findings are thus not affected by the subsequent COVID-19 pandemic, by the rapid downswing of the cryptocurrency market in March 2020, or by the new bull run starting in Q4 2020. The main limitation of this research is represented by its regional focus on Czech respondents (Central Europe), excluding any possible cultural differences between various regions. In connection with this limitation, it is appropriate to add that cryptocurrencies have strong support in the Czech Republic, due to the relatively large proportion of information technology specialists and enthusiasts in new technologies in proportion to the general population [76].

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