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How do security and benefits instill trustworthiness of a digital local currency?

**JEL Classification:** D31; M29; O44

**Keywords:** local digital currency; security; benefits; trust; age and work experience of individuals; logistic regression

**Abstract**

**Research background:** The existence of new technologies and increase in the extensive usage of the internet by individuals, forces governments, local authorities and practitioners to create alter-
Native payment methods such as digital currencies. However, some of the individuals are concerned about trusting these currencies since they negatively perceive their security. Moreover, some people with low income have the willingness to use these currencies in case of receiving some financial benefits. In this regard, security and benefits have been used as tools to increase the trustworthiness of digital currencies.

**Purpose of the article:** The goal of this study is to investigate and to examine the influences of security and benefits of a local digital currency on potential users’ trust in this currency. This paper also considers the age and work experience of prospective users and investigate these variables’ effects on stated relationships.

**Methods:** This paper is based on a case study that includes 413 respondents who are workers of a large company in Cieszyn Silesia region of the Czech Republic. A questionnaire survey was employed by researchers to determine the perceptions of potential local currency users. Binary logistic regression analyses were performed to examine the relationships between selected variables. Calculations were made using SPSS Statistics software.

**Findings & Value added:** The results of this paper confirm the positive influences of security and provided benefits on the trust of a digital currency. Regarding characteristics of potential users, perceptions of younger and less experienced users regarding the security and financial benefits are more positive to trust this currency comparing to older and more experienced respondents. Trade freedom of a country, long term orientation and individualistic characteristics of potential users might be reasons for the positive relationships between security, benefits and trust in a local digital currency. On the other hand, the income of prospective users, new technology curiosity, and experience of users might be mounting pieces of evidence to explain the differences in the perceptions of potential users regarding security, benefits and trust to a local digital currency. This paper also proposes some policy implementations to users, practitioners, local authorities and governments to make them cope with the security and trust issues of these currencies.

**Introduction**

Local currencies are used as an innovative tool by local authorities, non-governmental organizations, municipal authorities, practitioners and governments to maintain sustainability by finding solutions for economic, social and environmental problems in geographically restricted areas. The main aims of these currencies are to satisfy the needs of underdog local people, to reinvigorate local economic activities for local businesses and citizens, to create awareness of people regarding environmental and social issues by enabling to set a close mutual relationship between them.

Sales of commodities (Josavac, 2017, pp. 1–18) and local trade increase with the usage of local currencies (De Carrillo *et al.*, 2018, pp. 125–140). Moreover, firms make more business deals with each other (Wheatley *et al.*, 2011, pp. 84–89). It also increases the deployment of resources and idle sources (Seyfang, 2005; Gomez & Helmsing, 2008, pp. 2489–2511; Brenes, 2011, pp. 32–38). Individuals gain competencies to apply new technologies (De Carrillo *et al.*, 2018, pp. 125–140) and users behave more independently when making financial decisions (Gregory, 2009, pp. 19–32; De Carrillo *et al.*, 2018, pp. 125–140). Local businesses can also support
the usage of these currencies to have a robust and sustainable economy in their region (North, 2010, pp. 282).

Except for their usage in paper-based, individuals become able to use those currencies in digital format because of the developments in advanced technologies such as blockchain, which enables more secured transactions. Digital currencies consist of cryptographic procedures. Thus, they are also called cryptocurrencies (Mendoza-Tello et al., 2018, pp. 50737–50751), which are electronic (Bucko et al., 2015, pp. 1–10) or internet money (Roussou et al., 2019, pp. 223–259). More than 2120 cryptocurrencies are in existence and their total value is more than $130 billion (Roussou et al., 2019, pp. 223–259). Bitcoin is the most famous and mostly used cryptocurrency, since it circulates the globe (Poyser, 2019; pp. 29–60).

Smartphones also provide some opportunities for potential users to use digital currencies and make online transactions via applications that stimulate more comfortable usage and save time for its’ users. As risk and cost are substantial factors in the implementation of local currencies, digital currencies bring some advantages to overcome those issues. For instance, practitioners decrease their seigniorage and bargaining costs and reduce counterfeiting issues, since some criminals still print counterfeit money. However, some disadvantages or concerns about local digital currencies make potential users beware of using them. The reason for that might be related with lack of awareness of potential users regarding how to use these currencies (Shahzad et al., 2018, pp. 33–40; Schuhy & Shy, 2016, pp. 1–47; Tsanidis et al., 2015, pp. 295–302), since these currencies’ usage might be seen as complicated, awkward and unsatisfactory (Schuhy & Shy, 2016, pp. 1–47). Moreover, implementing a local currency can create some risks that cause political and economic distresses (De Carrillo et al., 2018, pp. 125–140).

Nevertheless, the main problems that potential users face are related to the trustworthiness and security of these currencies (Shahzad et al., 2018, pp. 33–40; Walton & Johnston, 2018, pp. 165–182). According to several studies, the main reason is that trust is an essential factor that determines the usage of digital currencies (Walton & Johnston, 2018, pp. 165–182; Almuraqab, 2019, pp. 1–12; Shahzad et al., 2018, pp. 33–40; De Carrillo et al., 2018, pp. 125–140). In this regard, one of the fields of interest of this study will be related to the examination of the relationship between the security of local digital currency and the trust of potential users.

Except for security, provided benefits by practitioners might be another vital factor that influences individuals’ trust in digital currencies. Practitioners offer benefits such as funding opportunities that are paid in digital money, and this can reduce the security concerns of individuals (Wulandari
et al., 2018, pp. 1927–1934). Then, local digital currencies might become more trustful from the perspective of potential users. Other studies also highlight the importance of other benefits, such as discounts in the usage and trustworthiness of local, digital and other community currencies (Ryan-Collins, 2011, pp. 61–67; Kim et al., 2016, pp. 344–358; Ruddick et al., 2015, pp. 18–30; Bansal & Zahedi, 2014, pp. 13–29). Instead of using discounts as a provided benefit, this research considers additional benefits that are paid in digital money to employees’ accounts. By examining this fact, this paper also analyses the influence of provided advantages on the reliability of local digital currencies.

Perceptions of potential users regarding to benefits, incentives and subsidies of digital currencies and their influences on individuals’ adoption and trust have also investigated by some researchers (Walton & Johnston, 2018, pp. 165–182; Pianese et al., 2018, pp. 1–5; Mauldin, 2015, pp. 462–476; Tsanidis et al., 2015, pp. 295–302; Presthus & O’Malley, 2017, pp. 89–97). Some studies also focus on users’ characteristics in the usage and trust to these currencies (Walton & Johnston, 2018, pp. 165–182; Schuhy & Shy, 2016, pp. 1–47) such as differences between marital status (Collom, 2007, pp. 36–83), gender (Jonker, 2018, pp. 1–35; Schuhy & Shy, 2016, pp. 1–47) age (Presthus & O’Malley, 2017, pp. 89–97; Schuhy & Shy, 2016, pp. 1–47) education, income, experience (Schuhy & Shy, 2016, pp. 1–47) of using currencies. The age of users regarding their security concerns and trust for local and digital currencies have also been examined by many researchers (Abraham et al., 2019, pp. 1–14; Tsanidis et al., 2015, pp. 295–302). Yet, different from all those above-mentioned studies, this paper pays regard to differences in perceptions, work experience and age of potential users regarding security, trust and benefits of a local digital currency. Although most of the community currency implementations have been applied in European regions (Seyfang & Longhurst, 2013, pp. 65–77), this research focuses on an area that has never used a community currency, namely, Cieszyn Silesia region of the Czech Republic.

Some studies use the Technological Acceptance Model (TAM), and analyze how the perceived trust and perceived benefits factors impact the individuals’ intention to digital currencies usage (Almuraqab, 2019, pp. 1–12; Shahzad et al., 2018, pp. 33–40; Wulandari et al., 2018, pp. 1927–1934; Walton & Johnston, 2018, pp. 165–182; Mendoza-Tello et al., 2018, pp. 50737–50751). However, this paper focuses on the perceived security and perceived benefits of local digital currency and examines the effects of those factors on the trust of this currency. Therefore, this study aims to find the answers to the following questions: Do benefits provided by practitioners of local digital currencies and security of those currencies increase po-
tential users’ trust? This paper also tries to find whether the confidence of prospective users, their perceptions of provided benefits and security concerns for those currencies differ regarding their work experience, and age or not.

The opinions of four hundred thirteen employees of the selected company from the Cieszyn Silesia region of the Czech Republic are analysed to hit the target of this paper. The data from the respondents were collected through the questionnaire survey and were further analysed in SPSS software using binary logic regression analyses. We applied two log-likelihood statistics, Cox and Snell $R^2$ and the Nagelkerke $R^2$, Durbin-Watson statistics, Variance inflation factors (VIF), and variable correlations analysis to verify the requirements regarding assumptions of logistic regression models.

The rest of the paper is organized as follows. Section 2 discusses related studies in investigated topics, section 3 describes the methodology and data, and finally, section 4 presents the findings of this research. Discussions regarding the result of this study are presented in Section 5. Lastly, Section 6 concludes the main points of this paper.

**Literature review**

The advance of new technologies has not only enabled the development of the payment method, but also has caused the emergence of new techniques. Cryptocurrencies are one of the latest and most popular payment methods and used as a digital currency by working as peer to peer network all over the world. Transactions in digital currencies are usually secured by blockchain technology (Roussou et al., 2019, pp. 223–259; Schuhy & Shy, 2016, pp. 1–47).

Due to using blockchain technology, transactions in digital currencies are more transparent, and they provide correct information that every user of digital currency have the competency to see these transactions and confirm their accuracy (Folkinshteyn & Lennon, 2016, pp. 220–249; Sas & Khairuddin, 2017, pp. 6499–6510; Mendoza-Tello et al., 2018, pp. 50737–50751). Therefore, blockchain provides reliability and controllability of information (Franca et al., 2020, pp. 1–8). Blockchain also works as a public ledger of all transactions that are made in the network of digital currencies (Presthus & O’Malley, 2017, pp. 89–97; Mendoza-Tello et al., 2018, pp. 50737–50751; Walton & Johnston, 2018, pp. 165–182). All transactions in blockchain are updated, verified and recorded (Presthus & O’Malley,
Cryptography is a method that includes blockchain encryptions to make its users have a private and common key to cope with double-spending issues (Jaoude & Saade, 2019, pp. 45360–45381; Bucko et al., 2015, pp. 1–10; Chakrabarti & Basu, 2019, pp. 385–388) and also make transactions by securing privacy (Chakrabarti & Basu, 2019, pp. 385–388; Jaoude & Saade, 2019, pp. 45360–45381). Moreover, miners operate, validate, and assure transactions by using blockchain technology to cope with double spending problem (Sas & Khairuddin, 2017, pp. 6499–6510; Presthus & O’Malley, 2017, pp. 89–97). Miners might be tools or individuals who have these tools, while mining is an operation that enables miners to generate blocks (Presthus & O’Malley, 2017, pp. 89–97). These blocks attest to verified transactions. Then, miners add these blocks to the blockchain (Presthus & O’Malley, 2017, pp. 89–97; Chakrabarti & Basu, 2019, pp. 385–388).

Users own digital wallets that also give privacy to its users (Bucko et al., 2015, pp. 1–10; Franca et al., 2020, pp. 1–8; Chakrabarti & Basu, 2019, pp. 385–388; Sas & Khairuddin, 2017, pp. 6499–6510) and provide all information in blockchain to them (Presthus & O’Malley, 2017, pp. 89–97). Individuals use their digital wallets and make payments from it by using their computer or mobile devices with their cryptographic key. When a wallet data is stolen or lost, the wallet will not be in existence. Although the address of this wallet is still present, using the key does not make users to be logged in, since the key has been already removed. Moreover, hackers are also not able to decode this key because of Bitcoin’s encryption system (Bucko et al., 2015, pp. 1–10).

Although digital currencies take above mentioned severe measures to reduce users’ concerns about security issues to increase the trustworthiness of these currencies, potential users still abstain from using these currencies. Trust is a vital factor because it affects individuals’ decisions, ideas, and intentions to use digital currencies by decreasing risk, complicacy, disadvantages, and harmfulness of these currencies (Almuraqab, 2019, pp. 1–12; Mendoza-Tello et al., 2018, pp. 50737–50751). According to Almuraqab (2019, pp. 1–12:) and Shahzad et al. (2018, pp. 33–40), trust in digital currency also depends on individual beliefs, anticipations, predictions of potential users about the integrity, ability, confidence and reliability of these digital currencies (Mendoza-Tello et al., 2018, pp. 50737–50751; Park et al., 2012, pp. 304–312). Trust is not only related with technical variables and technical abilities of these currencies (Abraham et al., 2019, pp. 1–14) and might cause risky situations for individuals since trustee can harm them physically, mentally, and financially (Bansal & Zahedi, 2014, pp. 13–29).
When the trust of individuals decreases, they become less likely to use new technologies (Almuraqab, 2019, pp. 1–12; Shahzad et al., 2018, pp. 33–40; Miao et al., 2015, pp. 448–466).

When it comes to the reasons why potential users cannot trust digital currencies, security is one of the major concerns for possible users (Presthus & O’Malley, 2017, pp. 89–97; Roussou et al., 2019, pp. 223–259). Individuals are mainly worried about the security of their financial assets and privacy (Bucko et al., 2015, pp. 1–10). They can perceive digital currencies as risky, and this fact affects their propensity to adopt and trust to these currencies (Walton & Johnston, 2018, pp. 165–182; Mendoza-Tello et al., 2018, pp. 50737–50751; Park et al., 2012, pp. 304–312). To secure themselves, potential users might avoid risks by not adopting its usage (Schuhy & Shy, 2016, pp. 1–47).

Cyberattacks by hackers or criminals (Bohr & Bashir, 2014, pp. 94–101; Sas & Khairuddin, 2017, pp. 6499–6510; Walton & Johnston, 2018, pp. 165–182; Mendoza-Tello et al., 2018, pp. 50737–50751; Almuraqab, 2019, pp. 1–12) or its administrator (Majuri, 2019, pp. 594–610), the existence of e-wallet thefts (Almuraqab, 2019, pp. 1–12; Mendoza-Tello et al., 2018, pp. 50737–50751; Bucko et al., 2015, pp. 1–10), anonymous (Bucko et al., 2015, pp. 1–10; Walton & Johnston, 2018, pp. 165–182), non-transparent (Majuri, 2019; Roussou et al., 2019, pp. 223–259), and untraceable transactions (Bucko et al., 2015, pp. 1–10; Sas & Khairuddin, 2017, pp. 6499–6510), and identification problems, identity and privacy of Bitcoin users (Bucko et al., 2015, pp. 1–10; Folkinshteyn & Lennon, 2016, pp. 220–249; Abraham et al., 2019, pp. 1–14) might be the main reasons of their security concerns about digital currencies. Moreover, digital currencies’ untraceable and anonymous transactions can cause illegal usage of these currencies (Almuraqab, 2019, pp. 1–12; Bucko et al., 2015, pp. 1–10; Walton & Johnston, 2018, pp. 165–182) such as funding terrorist organizations (Bucko et al., 2015, pp. 1–10). Statistics in the US show that around 30 to 50% of computers are exposed to cyberattacks (Almuraqab, 2019, pp. 1–12).

The volatility (Roussou et al., 2019, pp. 223–259; Bucko et al., 2015, pp. 1–10; Schuhy & Shy, 2016, pp. 1–47) and exchange rate cause other risks for potential digital currency users (Walton & Johnston, 2018, pp. 165–182; Bucko et al., 2015, pp. 1–10; Schuhy & Shy, 2016, pp. 1–47). Digital currencies’ exchange rate and its high volatility can enable hackers to easily manipulate these currencies (Walton & Johnston, 2018, pp. 165–182) and give rise to price bubbles (Bucko et al., 2015, pp. 1–10; Majuri, 2019, pp. 594–610; Roussou et al., 2019, pp. 223–259). Hence, users might be financially influenced. Cash preferences of individuals affect their trust in digital currencies as they might feel more secured when they use tangible...
money and make a face to face interactions with payees (Bashir et al., 2016, pp. 347–367). Moreover, tangible money such as paper currencies gain acceptance by everybody because they are fiat money, carry real values, require obligations to take it back, are also secured by the governments. For these reasons, it is difficult to counterfeit, and this fact increases their trustworthiness.

The nonexistence of governments’ regulations and implementations might be the main reason why potential users perceive these currencies as risky (Bucko et al., 2015, pp. 1–10; Mendoza-Tello et al., 2018, pp. 50737–50751). Furthermore, guarantees or control mechanism by central authorities, third parties such as central banks, other banks, and institutions are not in existence in the usage of these currencies (Bashir et al., 2016, pp. 347–367; Mendoza-Tello et al., 2018, pp. 50737–50751; Bucko et al., 2015, pp. 1–10; Walton & Johnston, 2018, pp. 165–182). In this regard, government or practitioners’ supports might need to secure the processes of digital currencies to increase trustworthiness.

On the other hand, the existence of external authorities carries high importance to gain benefits (such as extra money or financial reward) from local digital currencies for potential users, and this fact increases their attendance tendencies to use these currencies. When local and national governments and other authorities take an administrative role, such as collaborating with merchant users and practitioners and guaranteeing transactions in local currencies, potential users’ willingness to use these currencies increases (Miao et al., 2015, pp. 448–466; Pianese et al., 2018, pp. 1–5; Bashir et al., 2016, pp. 347–367). These measures as well corroborate the positive relationship between provided benefits by merchants and their workers’ willingness to receive their salary in digital currencies. The researchers also highlight the fact that since employees will earn more money than their wages only in dollars, their propensity to have digital currencies increases. Therefore, subsidies and benefits are positively influencing individuals to participate in digital currencies (Gawthorpe, 2017, pp. 51–64; Miao et al., 2015, pp. 448–466).

A positive association between provided benefits to potential users and their tendency to use these currencies has also been confirmed by Wulandari et al. (2018, pp. 1927–1934), and Walton and Johnston (2018, pp. 165–182). The main reason for this case is that when making decisions about usage of digital currencies, the parties or potential users of digital currencies usually look from their socio-economic perspectives (Alzahrani, & Daim, 2019, pp. 1–7). Therefore, incentives, benefits and subsidies that practitioners or merchants of digital currencies provide might influence potential users’ decisions and intentions to use currencies (Miao et al.,
2015, pp. 448–466; Lee et al., 2012, pp. 569–588; Walton & Johnston, 2018, pp. 165–182). For instance, Richey and Ikeda (2009, pp. 911–926) find that incentive programs can increase trust, and these programs make participant individuals gain benefits.

Corresponding to users’ characteristics, Chard et al. (2012, pp. 551–563) clarify that propensity of people for incentives to attend and trust to new technological trends might differ. Lee et al. (2012, pp. 569–588) outline that age and income are essential characteristics that influence price sensitivity and bargaining propensity. Kim et al. (2016, pp. 344–358) also remarked that individuals with lower income might be more prone to receive economic benefits to rely upon local currencies. People who work in lower job positions are more likely to be young (Furnham & Palaiou, 2017, pp. 71–90), so they are more likely to have lower income compared to older people. According to Sgobbi and Suleman (2013, pp. 420–437) and Blazquez et al. (2018, pp. 16–34), job positions and income are positively related. Furthermore, Koisoova et al. (2018, pp. 104–117) clarify that except Prague, people who live in different regions of the Czech Republic earn lower salaries than the average wage in the Czech Republic. Since citizens in the analyzed area have statistically lower incomes in comparison to the national average, they might be prone to gain more benefits using local digital currency. According to Kwon et al. (2017, pp. 302–314), usage of community currencies depends on the quality of life that is influenced by income and age of users. Users of CC have more properties such as cars and houses in comparison with non-users of these currencies. Because of having less income, younger potential users might be more likely to receive economic benefits from practitioners, and these incentives might make them trust local digital currencies more than older people.

Furthermore, digital currencies can be seen as complicated processes and procedures for older adults. Thus, their awareness and usage of new phenomenon might be lower compared to younger people who are more interested with latest technological trends (Lee et al., 2012, pp. 569–588; Teo et al., 2015, pp. 311–331; Mishra et al., 2016, pp. 1–4). In this regard, some researches state that younger individuals are more likely to use digital currencies in comparison with older people (Presthus & O’Malley, 2017, pp. 89–97; Wulandari et al., 2018, pp. 1927–1934; Walton & Johnston, 2018, pp. 165–182). According to Tsanidis et al. (2015, pp. 295–302), average users of Bitcoin are young. These researchers also confirm that the trust of users differs regarding their age. Since older people are not capable of using digital currencies and are less acquainted with the processes about these currencies, their security concerns might be more serious. Thus, they can behave as risk-averse and cannot trust these currencies.
Since they are more able to know the advantages of new systems and are not prejudiced as older people, younger people might positively perceive the security of local digital currencies to trust them (Majuri, 2019, pp. 594–610). Another essential factor that influences the motivation of users is technological curiosity (Presthus & O’Malley, 2017, pp. 89–97). As younger people are more curious about new technologies, they are more prone to search for information about the security of these currencies. Thus, their propensity to trust secured local digital currencies that provide benefits for them might be more than older potential users.

Acceptance of local digital currencies by potential users can also be impacted by the behaviors and competencies of these individuals. These attitudes stimulate prospective users to accept these currencies (Gimenez & Tamajon, 2019, pp. 1–19). In this regard, work experience might be an essential factor (Ng & Feldman, 2009, pp. 1053–1075). Moreover, a positive relationship between experience and income has also been proved (Sellers et al., 2019, pp. 87–95; Paloniemi, 2006, pp. 439–450). Since less-experienced workers earn less money comparing to more experienced potential users, they can look for more opportunities to increase their income and might be more interested in the provided benefits. They might also be more prone to trust practitioners or participant merchants of these currencies. Individuals with more high-tech experience are more prone to adopt digital currencies (Presthus & O’Malley, 2017, pp. 89–97). Although they could be less experienced in working life, potential users might be more experienced in the usage of new technologies.

To sum up, the positive relationships between security and trust (Walton & Johnston, 2018, pp. 165–182; Mendoza-Tello et al., 2018, pp. 50737–50751; Park et al., 2012, pp. 304–312), provided benefits and trust (Miao et al., 2015, pp. 448–466; Lee et al., 2012, pp. 569–588; Walton & Johnston, 2018, pp. 165–182) and negative relationships between demanded benefits by older potential users and their trust (Kim et al., 2016, pp. 344–358; Kwon et al., 2017, pp. 302–314), security perceptions of older users and their trust (Majuri, 2019, pp. 594–610; Presthus & O’Malley, 2017, pp. 89–97), demanded benefits and perceived security by more experienced potential users and their trust (Sellers et al., 2019, pp. 87–95; Presthus & O’Malley, 2017, pp. 89–97) have been professed by studies mentioned above. By considering these arguments, the authors will set the hypotheses Research methodology section.

Moreover, many researchers have applied logistic regression analyses in their economic researches primarily related to community, local and digital currencies (Duasa et al., 2018, pp. 1307–1314; Richey & Ikeda, 2009, pp. 911–926; Schuhy & Shy, 2016, pp. 1–47). For instance, awareness (Schuhy
& Shy, 2016, pp. 1–47; Patel et al., 2012, pp. 205–212), trust (Richey & Ikeda, 2009, pp. 911–926; Richey, 2007, pp. 69–88), usage (Jonker, 2018, pp. 1–35; Duasa et al., 2018, pp. 1307–1314), benefits (Duman & Mattila, 2003, pp. 45–57; Patel et al., 2012, pp. 205–212) of local, digital and community currencies have been analysed by these studies by performing logistic regression analyses. On the other hand, some researchers also include characteristics of the respondents in their logistic regression models to evaluate usage and trust in these currencies (Furnham, 2017, pp. 39–45, Duasa et al., 2018, pp. 1307–1314). For these reasons, this paper also employs binary logistic regression tests to perform analyses. More details about these analyses will also be presented in the Research methodology.

Research methodology

This paper aims to investigate the influences of the security and benefits of local digital currencies on the reliability of these currencies. This research considers the age and experience of prospective users and analyzes the impacts of these characteristics on the relationships mentioned above. In parallel with this objective, the researchers employed a questionnaire survey and directed it to the 413 workers of a large regional business that was located in Cieszyn Silesia, the Czech Republic. This research is a case study of a local currency implementation; thus, the researchers have created this questionnaire survey to determine if employees show interest in using the local currency in the Cieszyn Silesia region. For this case study, a firm that is not a member of a local currency implementation has been selected.

The researchers chose and analyzed the responses from the three following questions of a questionnaire regarding the aim of this paper: “Do you trust digital currencies?”; “Do you think that a secure and secure local currency, which is only valid in a given region, is an appropriate form of support for regional producers and service providers?”; “Would you agree that your employer will provide additional employee benefits in your local secured digital currency to your account?”). Possible answers were Yes or No).

Furthermore, the age variable is categorized into two groups, such as older (respondents who are more than 50 years old) and younger (50 years old and less). In contrast, the years of work experience are classified as more experienced (more than ten years of experience) and less experienced (up to 10 years of experience). The substantiations of the previously mentioned papers in the literature review section enable the researchers to presume the hypotheses of this research as follows:
H1: Trust of potential users regarding digital currency is positively associated with the security of digital currencies.

H2: Trust of potential users regarding digital currency is positively related to the benefits that are provided to prospective users.

H3: A negative association exists between the security perception of older potential users and their trust in local digital currency.

H4: A negative association exists between demanded benefits by older potential users and their trust in digital currency.

H5: There is a negative relationship between the security perception of more experienced potential users and their trust in digital currencies.

H6: There is a negative relationship between demanded benefits by more experienced potential users and their trust in digital currencies.

The researchers have performed Binary Logistic Regression Test to examine the associations among chosen variables because the dependent variable, trust is binary and measured by a “yes (do trust)” and “no (do not trust)” query. All analyzes in this research were run by AMOS SPSS Statistical Program Version 23. The researchers also consider Wald Statistics to find out the significance of independent variables, namely, age, experience, security, and benefits. Age and experience are ordered and categorical data. A 10% level of significance is selected to decide whether the researchers support or do not support alternative hypotheses. P values that are higher than this significance level cause rejection in the null hypothesis. Null hypotheses suppose the fact that positive (for H1 and H2 hypotheses) or negative (for H3, H4, H5, H6 hypotheses) relationship does not exist among examined variables.

Logistic regression models of this research for H1 and H2 hypotheses as follows:

\[ Y_1 = (\beta_0 + \beta_1 X_1) \]  \hspace{1cm} (1)

where:

\( X_1 \) – Independent variable (security);

\( Y_1 \) – Dependent variable (trust to digital currency by potential users);

\( \beta_1 \) – Regression coefficients;

\( \beta_0 \) – Constant or intercept term.
2\textsuperscript{nd} Binary Logistic regression model: \( Y_1 = (\beta_0 + \beta_1 X_1) \) (2)

where:
- \( X_1 \) – Independent variable (benefit);
- \( Y_1 \) – Dependent variable (trust to digital currency by potential users);
- \( \beta_1 \) – Regression coefficients;
- \( \beta_0 \) – Constant or intercept term.

Corresponding to H3 and H4 hypotheses, age and work experience are added to the 3rd, 4th, 5th and 6th Binary Logistic Regression models as indicated below:

3\textsuperscript{rd} Binary Logistic Regression model: \( Y_1 = (\beta_0 + \beta_1 X_1 + \beta_2 X_2) \) (3)

where:
- \( Y_1 \) – Dependent variable (trust to local currency by potential users);
- \( X_1 \) – Independent variable (security);
- \( X_2 \) – Independent variable (age).

4\textsuperscript{th} Binary Logistic Regression model: \( Y_1 = (\beta_0 + \beta_1 X_1 + \beta_2 X_2) \) (4)

where:
- \( Y_1 \) – Dependent variable (trust to local currency by potential users);
- \( X_1 \) – Independent variable (benefit);
- \( X_2 \) – Independent variable (age).

5\textsuperscript{th} Binary Logistic Regression Model: \( Y_1 = (\beta_0 + \beta_1 X_1 + \beta_2 X_2) \) (5)

where:
- \( Y_1 \) – Dependent variable (trust to local currency by potential users);
- \( X_1 \) – Independent variable (security);
- \( X_2 \) – Independent variable (work experience).

6\textsuperscript{th} Binary Logistic Regression Model: \( Y_1 = (\beta_0 + \beta_1 X_1 + \beta_2 X_2) \) (6)

where:
- \( Y_1 \) – Dependent variable (trust to local currency by potential users);
- \( X_1 \) – Independent variable (benefit);
- \( X_2 \) – Independent variable (work experience);
- \( \beta_{1,2} \) – Regression coefficients for 3\textsuperscript{rd}, 4\textsuperscript{th}, 5\textsuperscript{th} and 6\textsuperscript{th} regression models;
- \( \beta_0 \) – Constant or intercept term for 3\textsuperscript{rd}, 4\textsuperscript{th}, 5\textsuperscript{th} and 6\textsuperscript{th} regression models.
The research employs -2 log-likelihood statistics to examine how the models fit with data and how overall models forecast changes in the dependent variable. Better model fit occurs when -2 log-likelihood with predictors have lower values than the base model -2 likelihood statistics. The base model includes the constant term. Thus, adding more predictors different from the base model might enable these models to express most of the observations in analyzed data. For example, adding the security as the predictor in -2 log-likelihood statistics in Model 1, and benefits in Model 2, makes its values lower. The decreases in -2 log-likelihood statistics also occurred for other models, and have differed from 15.864 to 22.938 (the Chi-Square column of Table 1). These values prove the fact that including predictor variables have improved the model. Comparing to the 1st and 2nd model, adding other predictors such as age and work experience in other models have also improved model fit more. Furthermore, all p values in Table 1 for Chi-square are less than a 10% confidence level; thus, they are all significant. For this reason, it can be elucidated that the logistic regression models of this research perform better than the base model at predicting the trust of potential users to local digital currencies.

Other essential measurements of the overall model fit are Cox and Snell $R^2$ and the Nagelkerke $R^2$. These indicators determine what percentage of the variability in the dependent variable stems from predictor variables. As a consequence, more rates of predictor variables show a better model fit. According to Nagelkerke $R^2$ values in Table 1, 9.2% and 7.6% of the variability in the dependent variable (trust of potential users to local digital currency) spring from its’ security (Model-1) and benefits (Model-2). Likewise, when age is added to Model-3 and Model-4, the predictive ability of this variable with security and benefit increases, and these variables become more dominant to explain more variations in the dependent variable (10.6% and 9.2%, respectively). Similar to the influence of age variable, work experience also makes positive contributions with security and trust predictive variables, and they all become able to estimate more variations in the trust of potential users to local digital currency (10.9% for Model-5 and 9.3% for Model-6).

This research also performs a Durbin-Watson test to measure the independence of errors that is also an assumption of logistic regression. This text aims to examine whether cases and the data are related to each other or not. Therefore, the residuals term should be independent with no autocorrelation (Field, 2009, p. 220). The values of a Durbin-Watson Statistic differ between 0 to 4. However, in order not to face autocorrelation problems regarding residual terms, values from this statistic should be around 2. Durbin-Watson Statistic values vary between 1.986 to 2.026, which is close to
2; thus, autocorrelation between residuals terms in this research does not exist (Table 1). By having these values in Durbin-Watson Statistic, this research does not violate independent of error assumption for the logistic regression models.

Another assumption of the logistic regression test is linearity. Predictor variables and log transformation are taken into consideration, and an interaction term between these factors shows whether this assumption is violated or not (Field, 2009, p. 273). P values for interaction terms that are higher than the 5% confidence level prove the fulfillment of this assumption. According to Table 2, a range of p values are 0.101 to 0.365; thus, they are significant and do not violate this assumption as well.

Lastly, we analyze multicollinearity between independent variables to fulfill the multicollinearity assumption of logistic regression test by paying regard to tolerance values and Variance inflation factors (VIF). VIF scores explain whether independent variables are highly correlated with each other or not. Field (2009) states that VIF values and tolerance scores will be acceptable not to violate multicollinearity assumption when they are less than 10, higher than 0.10, respectively. Since Model-1 and Model-2 have only an independent variable, they are not included in the analyzes of this assumption. When it comes to other logistic regression models of this paper, VIF scores differ between 1.004 to 1.016, while tolerance values are around 0.984 to 0.996. Another important indicator that shows multicollinearities between independent variables is correlation values. When it comes to correlations between all independent variables of the models, the highest value is 0.450, while the upper limit for multicollinearity is 0.7. All these values from tolerance, VIF, and correlation indicators corroborate that multicollinearities do not exist between independent variables of the logistic regression models of this research.

The research performs a random sampling method by the random selection of a sample from a big regional company with 5000 employees. The selected sample includes 500 workers that represent the same characteristics as a total population, regarding the genders, job positions, age, work experiences, and marital status. The selected respondents were asked to fill in the questionnaire survey, and 422 of them filled it. Questionnaires with missing values were excluded; thus, the final sample for analyses consisted of 413 respondents. This sample size is adequate for binary logistic regression models since the lowest number of the respondents needed for the analyses for each independent variable in a logistic regression model is 100 (Long, 1997). The models in this study have one or two independent variables; thus, 200 respondents will be enough for the analyses of this research.
The sample is corresponding to the following characteristics of the respondents: 358 male (86.7% of total respondents), 55 female (13.3%), 245 younger respondents (59.3%), 168 older survey participants (%40.7), 94 less experienced (22.8%), 319 more experienced respondents (77.2%), 137 single (33.2%), 276 married (66.8%), 287 employees in lower occupational statuses (69.5%) and 126 workers in higher job positions (30.5%). Moreover, most of the respondents from Trinec region (203 respondents, 49.2% of the total sample) while others (210 survey participants, 50.8% of total survey participants) reside in other places such as Jablunkov, Bystřice, Vendryně and Český Těšín.

Results

The results of Binary Logistic Regression analyses for Model-1 and Model-2 are illustrated in Table 3. Both of those models consist of one predictor variable, security, and benefits, respectively. Wald statistics are used to find whether those predictors are significant to predict the dependent variable, trust to the local digital currency, or not. To understand the significance of predictor variable, values of coefficients ($\beta$) in Model-1 and Model-2 have to be different from 0. Wald Statistics also assesses whether an independent variable significantly contributes to the dependent variable. At the same time, other predictors make a significant contribution to the outcome when other predictors in logistic regression models are constant (Field, 2009).

According to Table-3, $\beta$ scores are 1.443 and 1.280 for Model-1 and Model-2, respectively (Model-1: $\beta = 1.443$, Wald $\chi^2 = 19.731$, $p = 0.000 < 0.10$, Model-2: $\beta = 1.280$, Wald $\chi^2 = 15503$, $p = 0.000 < 0.10$). The values of $\beta$ coefficients confirm the fact that security and benefits are significant predictors to estimate trust. These findings also mean that higher values in the security and benefits of digital currencies are related to more possibilities to trust. When potential users positively perceive provided security and benefits of digital currencies, they become more likely to trust these currencies. In other words, when perceptions of potential users for security and benefits increase by one unit, their odds of trusting local digital currencies will increase by 1.443 and 1.280, respectively. When provided security and benefits are high in digital currencies, trust in these currencies increases. These facts make this paper to support H1 and H2 hypotheses that assume a positive relationship between security, benefits and trust in digital currencies.

Table 3 also depicts odds ratios (OR) to measure the strength of associations among independent and dependent variables. OR also indicates “how
many times higher the odds of occurrence are for each one-unit increase in the independent variable” (Ho, 2014). An increase in security and benefits by a unit, 4.234, and 3.597 times higher the odds of occurrence for trust to local digital currency with 90% confidence interval (CI) between 2.240 and 8.005 (security), 1.902 and 6.803 (benefits), respectively. Trust for local digital currency 4.234 and 3.597 times more likely to occur for potential users who more positively perceive the security and benefits of these currencies than users who have lower positive perceptions. Another noteworthy indicator is the threshold limit value that needs to be higher than 1 for OR. Taking into consideration the fact that ORs values are higher than 1 (4.234 and 3.597), it can be inferred that the odds of trust to local digital currencies are more likely to occur when the values for security and benefits of these currencies rise.

Table 4 depicts the results of logistic regression analyses for Model-3 and Model-4 that consist of the age of potential users different from Model-1 and Model-2. P values for predictor variables are all significant at 10% significant level (p = 0.000, 0.087, 0.000, 0.074 < 0.10). Thus, all independent variables of Model-3 and Model-4 have significant impacts on the trust of digital currencies. Corresponding to coefficients of these predictor variables, they are also different from 0 (β = 1.408, -0.619, 1.254, and -0.643). While potential users become older, they are more likely to trust digital currencies; the security and benefits of these currencies increase with age (coefficients for age in both models are negative: -0.619 and -0.643). It means that younger individuals, in comparison to older potential users, are more likely to trust digital currencies in the situation when the security and benefits of digital currencies increase. In the same manner, higher values in security and benefits and lower values in age are associated with higher possibilities to trust in digital currencies.

Furthermore, when age, security perception and demanded benefits by users increases by one unit, odds of occurrence for trust to digital currencies decreases by 0.538 and 0.526, respectively (OR for Model-3 and Model-4). It can be explained by the fact that odd ratios are less than 1, and it means that the odds of the trust to digital currencies are less likely to occur as the age of potential users increases. Thus, older individuals 0.538 and 0.526 times less likely to trust digital currencies, when security and benefits increase by one unit. Similarly, an increase in safety and profit with a decrease in age 4.089 and 3.503 times higher the odds of occurrence to trust digital currencies. For these reasons, this paper support H3 and H4 hypotheses that are set as the existence of a negative association between security perception and demanded benefits by older potential users and their trust in digital currencies.
Table 5 is presented below to demonstrate the results of Binary Logistic Regression analyses for Model-5 and Model-6. Different from Model-1 and Model-2, the experience is included to analyzes with security (for Model-5) and benefits (for Model-6) as predictor variables, while the dependent variable is the same as other models, namely, trust.

As indicated in Table 5, security, benefits and work experience are statistically significant predictors in Model-5 and Model-6 (p= 0.000, 0.000, 0.050, 0.048 < 0.10). These values prove the fact that all independent variables of both of those models significantly contribute to the credibility of local digital currencies. However, the coefficients of work experience in Model-5 and Model-6 are negative (β = -0.675 and -0.677, respectively). Therefore, greater values from work experience are associated with lower possibilities to trust local digital currencies. Less experienced potential users who perceive the security of these currencies more positively and demand more benefits are more likely to trust digital currencies in comparison with more experienced respondents. If a potential users’ age increases by a unit, his trust in local currencies will decrease by 0.675 and 0.677, while security and benefits are held constant in Model-5 and Model-6. This fact does this research to support H5 and H6 hypotheses that presume a negative association between more experienced potential users’ security perception, demanded benefits, and their trust in local digital currency.

Concerning odds ratios, a less experienced potential user who perceives the security of digital currency more positively, is 3.956 times more likely to trust digital currencies than more experienced prospective users. On the other hand, less experienced respondents who demand more benefits from the local digital currency, 3.349 times more likely to trust this currency. Since OR for experience in both models is less than 1, this paper can profess that odds of occurrence to trust a digital currency become less likely when the experience of potential users increases.

**Discussion**

*Compliance with previous studies*

Concerning the relationship between benefits and trust, this study finds similar results with Bashir et al. (2016, pp. 347–367), Gawthorpe (2017, pp. 51–64), Miao et al. (2015, pp. 448–466), Wulandari et al. (2018, pp. 1927–1934), and Walton & Johnston (2018, pp. 165–182). These researchers also prove the fact that usage of digital currencies increases by provided benefits or intensives to potential users. When it comes to the positive asso-
ciation between security and trust, the findings of this paper coincide with the studies of Walton and Johnston (2018, pp. 165–182), Mendoza-Tello et al. (2018, pp. 50737–50751), and Park et al. (2012, pp. 304–312) since they also confirm this association.

The reason for these positive associations between benefits, security, and trust of digital currency might proceed from the cultural values of Czech respondents and trade freedom in the Czech market. That is because a digital currency adoption is higher in a country that has a higher score from the trade freedom index (Parino et al., 2018, pp. 1–14). According to Heritage (2020), the overall rating of the Czech Republic is 73.7, and the country’s rank is 23. Thus, it can be stated that this country has regulated property rights sufficiently and has regulatory efficiency to make potential users feel secure when using or trusting a digital currency. Cultural values and norms can also affect individuals’ perceptions and behaviors, whether provided information and fact is reliable or not (Park et al., 2012, pp. 304–312). In this regard, the perception of provided benefits and security of digital currencies by potential users might differ regarding their cultural characteristics. For instance, Abraham et al. (2019, pp. 1–14) confirm the fact that a digital currency might be widely used in a country that has a high score from long term orientation and individualism indexes. Comparing to individuals of eastern cultures, people in Western cultures have more self-confidence, autonomy, and more tendencies to trust when making an exchange or keeping pace with changes; thus, they show the characteristics of individualistic cultures (Park et al., 2012, pp. 304–312).

Moreover, Kreiser et al. (2010, pp. 959–984) highlight that individuals in countries with more individualistic attitudes are more prone to take more risks since they feel more confident and behave more autonomously than citizens of countries that have collectivist behaviors culture (Kreiser et al., 2010, pp. 959–984). Acar and Goc (2011, pp. 841–852) also propound that people who are from Eastern countries tend to take less risk than societies from Western countries. According to Hofstede’s Insight (2019), Czech people are individualistic and Czech culture has a high score (70) from long term orientation index. Hence, by being more open to a new phenomenon, being easily adapted to new trends such as digital currencies, and by having individualistic characteristics, the respondents in this research might have trusted to digital currencies with positive influences of digital currencies’ benefits and security.

Regarding the association between the age of users and their perception of security, benefit, and trust of digital currencies, the results of this study are compatible with the findings of Lee et al. (2012, pp. 569–588), Teo et al. (2015, pp. 311–331), Mishra et al. (2016, pp. 1–4), Walton and Johnston
These researchers also compare the usage and trust of digital currency among older and younger users and corroborate that younger users are more prone to trust and use these currencies in comparison with older individuals. Those studies also state that since younger people are more aware of changes in new technologies and their propensity to use novel inventions is higher than older people. Their curiosity about new technologies and experiences in usage of high technology services might have made younger potential users in this study to trust a local digital currency by positively perceiving provided benefits and security of this currency. Furthermore, by analyzing Czech respondents, Kljucnikov et al. (2019, pp. 773–795) highlight that education is positively related to proactiveness. In this regard, younger potential users in this study might be well educated. Thus, they can have information about digital currencies, and this fact makes them behave proactively to trust the local digital currency more than older individuals.

Corresponding to the relationship between work experience of potential users and security, trust, and benefits of a local digital currency, a result of this study contradicts the findings of Zeffane (2018, pp. 210–223) and Bohr and Bashir (2014, pp. 94–101). Both of those studies corroborate the positive association between work experience and trust in digital currencies. However, this paper champions the fact that less experienced potential users are more likely to trust a digital currency by being less concerned about security issues of the currency and having more willingness to receive benefits. The reason for this might be the income level of investigated potential users in this research. Since most of the less experienced prospective users work for lower occupational status, they receive lower salaries in comparison with more experienced workers. This fact might explain why less experienced workers can be more disposed to gain more benefits from the usage of local digital currency.

Practical implications

To increase the usage and trustfulness of digital currencies, practitioners, governments, and member firms should take some actions by regulating transparent laws and securing all processes and transactions to impress potential users. Rules regarding usage of digital currencies should be specified primarily for tax issues. Tax reductions might be another way to increase the usage of digital currencies. In digital currency systems, practitioners and other players in the transactions have to assure that the digital
currency is not used for illegal purposes and hinder fraudulent transactions such as be stolen by hackers (Bucko et al., 2015, pp. 1–10).

The reputation of digital currencies also carries high importance to develop trust among users (Chard et al., 2012, pp. 551–563). When users perceive the reputation of these currencies negatively, their confidence in it decreases (Lee et al., 2015, pp. 109–143). The existence of information asymmetry and incomplete information between trustee and trustor also lowers the level of trust (Park et al., 2012, pp. 304–312). Trust in digital currencies for traders that are the participants of digital currencies can also be influenced by knowledge of their customers and the time of payments that these customers make (Sas & Khairuddin, 2017, pp. 6499–6510). Therefore, before implementing a digital currency, policymakers can conduct some pilot projects. By doing so, practitioners and other local authorities and policymakers can receive some feedbacks and improve digital currencies by providing more benefits, reducing their security concerns, and increasing potential users’ technological interests. In these pilot projects, educational and training activities can be given by authorities to reduce information asymmetries.

Funding also carries high importance in implementing these currencies. Some currencies such as B-Notes and Lewes pounds received enough amount of funds, grants, and supports to increase extensive usage of these currencies (Kim et al., 2016, pp. 344–358; Ryan-Collins, 2011, pp. 61–67). On the other hand, users of some digital currencies are charged by participating, redemption, and membership fees (Sobeiecki, 2018, pp. 105–124; Ryan-Collins, 2011, pp. 61–67; Kim et al., 2016, pp. 344–358). Instead of charging for participating and redemption fees, practitioners might provide financial benefits for potential users by giving more promotions, incentives, and subsidies. For instance, if a user or a firm enroll their friends or colleagues as a member of a local digital currency, they can be awarded as receiving extra money, getting more discounts and coupons. Other incentive mechanisms are also in existence all over the world. For instance, local authorities in Japan create community currencies and award individuals who work on a volunteer basis. Local governments provide credits for these volunteers that can spend these credits for local purchases and usage of facilities. By doing so, this program aims to increase the trust of potential users who do not trust community currency implementations of the local government (Richey & Ikeda, 2009, pp. 911–926). Another funding option might be donations as Bangla-Pesa (Ruddick et al., 2015, pp. 18–30) and Berkshares apply this strategy (Kim et al., 2016, pp. 344–358).

Collaborations of practitioners with governments, local authorities, and businesses are also sound practices. Without control, supports, and adjust-
ments of states, digital currencies’ trustworthiness might be reduced; thus, potential users become unwilling to assimilate and use these currencies (Shahzad et al., 2018, pp. 33–40). Although Dobes et al. (2017, pp. 34–50) state the fact that most of the company executives in the Czech Republic do not positively perceive the state approach to their business activities, this fact might not last forever. In this regard, as other governments, the Czech government can also make collaborations with businesses that are a member of digital currency to provide them with financial benefits. Nevertheless, Smekalova et al. (2014, pp. 41–49) express the fact that the Czech government mostly encourages businesses financially. The researchers also specify that, except for financial supports, the governments should create other opportunities for businesses. In this regard, the Czech government can also give some training and software supports for the companies that might be users and members of local digital currency.

On the other hand, Berkshares community currency makes local banks to join their currency system (Mauldin, 2015, pp. 462–476) and working together with the chamber of commerce (Kim et al., 2016, pp. 344–358). The achievement of Berkshares stems from its effective financing strategy by collaborating with banks and other institutions to control the local currency transactions (Kim et al., 2016, pp. 344–358). Similarly, NuSparPas is a successful local currency implementation (Netherlands) that is funded by the European Union. In this program, municipal authorities of Rotterdam, a bank, and a foundation collaborated to put this scheme into the practice (Miszczuk, 2018, pp. 83–90).

On the other hand, microcredit organization exists for funding of the scheme in the Loan Backed Currency (LBC) system and workers receive some portion of their wage in UDIS and purchase goods and services from participating business by using this currency (Brenes, 2011, pp. 32–38). Thus, effective implementation of these currencies is also related to purchasing product by local currency, make salary payment in these currencies, increase participation of local SMEs and larger firms to enhance the circulation of local currency (Kim et al., 2016, pp. 344–358). Therefore, creating a network among businesses and practitioners that can gain financing from a government-supported microcredit organization might encourage the players to provide more benefits and increase their effectiveness to gain trustworthiness among potential users of local currency implementations. Except for incentives, a bonus system (Blanc, 2011, pp. 4–10; Brenes, 2011, pp. 32–38) and vouchers (Brenes, 2011, pp. 32–38; Kim et al., 2016, pp. 344–358) can be used to improve usage and reliability of these currencies. Social relations between potential users also influence the trust of these individuals since it stimulates to cooperate (Cannas, 2017, pp.
Thus, practitioners of these currencies should consider this fact to build trust among local citizens by applying efficient strategies.

Conclusions

The developments in new technologies have not only influenced individuals’ social life but also have impacted the financial and economic conditions of countries and people by creating new payment methods such as digital currencies. These currencies have become a hot topic in the last decade because of its extensive usage around the globe and their advantages in transactions, especially after Bitcoin emergence. The reasons for its widespread adoption by users mostly depend on the security, trust, and benefits of these currencies. In this regard, the main objective of this paper is to examine the impacts of security and the benefits of local digital currencies on the trust of potential users. This study also investigates the age and work experience of prospective users to find differences between these variables and perceptions of users regarding the security, trust, and benefits of those currencies.

This research is a case study of a local currency implementation in the Cieszyn Silesia region of the Czech Republic. Therefore, it has collected data from 413 employees of a regional business by conducting a questionnaire survey to accomplish research objectives. Moreover, binary logic regression analyzes were run through statistical software, namely SPSS. This paper also applied two log-likelihood statistics, Cox and Snell $R^2$ and the Nagelkerke $R^2$, Durbin-Watson statistics, Variance inflation factors (VIF), and correlations between variables to fulfill the assumptions of logistic regression models. The results of these statistics confirm that this paper does not violate any assumptions. The findings from binary logistic analyses prove the fact that security and provided benefits of a digital currency positively influence potential users’ perceptions of the trust of digital currencies. The reasons for the positive relationships between selected variables might be related to the trade freedom of a country, and cultural differences such as long-term orientation and individualistic characteristics.

On the other hand, older and more experienced potential users do not perceive the security and benefits of local digital currencies as positive as their younger and less experienced counterparts. Income levels, technological curiosity, and experience of younger and less experienced potential users in the usage of new technologies might be persuasive evidence to explain differences regarding individuals’ characteristics. Since most of the
community currencies aim to encourage subordinate people that have lower-incomes, do not have a permanent job, are at risk, and are young, the implementation of local digital currency in the analyzed region might be convenient. It might be even more beneficial for young and less experienced citizens due to their willingness to receive more benefits and their eagerness to the usage of innovative services.

To reduce differences among individuals and to increase trustworthiness and usage of digital currencies, collaborations of practitioners with governments, local authorities, financing institutions, chamber of commerce, and foundations are of capital importance. Governments might impose some sanctions to secure all processes and transactions to block illegal usage. Moreover, policymakers might apply tax deductions to increase the adoption of these currencies by individuals. Practitioners can create pilot projects to gain a good reputation and to reduce information asymmetry by establishing close relationships. Promotions, incentives, subsidies, bonuses, financial awards, coupons, discounts, and other economic benefits might be other influential methods to increase the extensive adoption and reliability of those currencies.

Although this study differs from other studies by considering various factors that have not been analyzed by other papers, it is limited to some extent. For instance, in the analyses, this paper does not consider paper-based local currencies and digital currencies that flow internationally. Furthermore, the respondents of this research live in nearby geographical areas in the Czech Republic. The characteristics of individuals that this paper consider are also limited. Thus, further studies can consider both the format of local currencies, namely, paper and digital, include more characteristics of users, and pay attention to users who live different countries to have more comprehensive researchers.

References


Annex

Table 1. Assessing model fit and Independence of Errors Assumption of Logistic Regression Models

<table>
<thead>
<tr>
<th>Models</th>
<th>Base model's -2 LL statistics</th>
<th>-2 Log likelihood with predictors</th>
<th>Chi-Square df</th>
<th>Sig.</th>
<th>Cox-Snell R²</th>
<th>Nagelkerke R²</th>
<th>Independence of errors in regression models</th>
<th>Durbin Watson Test Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1 security</td>
<td>284.188</td>
<td>264.912</td>
<td>19.276</td>
<td>1</td>
<td>0.046</td>
<td>0.092</td>
<td></td>
<td>1.986</td>
</tr>
<tr>
<td>Model 2 benefit</td>
<td>284.188</td>
<td>268.324</td>
<td>15.864</td>
<td>1</td>
<td>0.038</td>
<td>0.076</td>
<td></td>
<td>1.995</td>
</tr>
<tr>
<td>Model 3 security, age</td>
<td>284.188</td>
<td>261.787</td>
<td>22.401</td>
<td>2</td>
<td>0.053</td>
<td>0.106</td>
<td></td>
<td>2.007</td>
</tr>
<tr>
<td>Model 4 benefit, age</td>
<td>284.188</td>
<td>264.902</td>
<td>19.286</td>
<td>2</td>
<td>0.046</td>
<td>0.092</td>
<td></td>
<td>2.018</td>
</tr>
<tr>
<td>Model 5 security, work exp.</td>
<td>284.188</td>
<td>261.250</td>
<td>22.938</td>
<td>2</td>
<td>0.054</td>
<td>0.109</td>
<td></td>
<td>2.019</td>
</tr>
<tr>
<td>Model 6 benefit, work exp.</td>
<td>284.188</td>
<td>264.593</td>
<td>19.595</td>
<td>2</td>
<td>0.046</td>
<td>0.093</td>
<td></td>
<td>2.026</td>
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</tbody>
</table>

Table 2. Linearity Assumption for the Logistic Regression Models

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linsec by security</td>
<td>.711</td>
<td>.486</td>
<td>2.138</td>
<td>1</td>
<td>.144</td>
<td>2.035</td>
</tr>
<tr>
<td>Linben by benefits</td>
<td>.523</td>
<td>.577</td>
<td>0.821</td>
<td>1</td>
<td>.365</td>
<td>1.687</td>
</tr>
<tr>
<td>Linsec by security</td>
<td>.678</td>
<td>.488</td>
<td>1.934</td>
<td>1</td>
<td>.164</td>
<td>1.971</td>
</tr>
<tr>
<td>Linage by age</td>
<td>-.603</td>
<td>.362</td>
<td>2.773</td>
<td>1</td>
<td>.106</td>
<td>.547</td>
</tr>
<tr>
<td>Linben by benefits</td>
<td>.607</td>
<td>.582</td>
<td>1.090</td>
<td>1</td>
<td>.297</td>
<td>1.836</td>
</tr>
<tr>
<td>Linage by age</td>
<td>-.657</td>
<td>.520</td>
<td>1.598</td>
<td>1</td>
<td>.206</td>
<td>.518</td>
</tr>
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</table>
### Table 2. Continued

<table>
<thead>
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<th>Variable</th>
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<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linsec by security</td>
<td>0.377</td>
<td>0.181</td>
<td>2.386</td>
<td>1</td>
<td>0.122</td>
<td>1.458</td>
</tr>
<tr>
<td>Linexp by experience</td>
<td>-0.639</td>
<td>0.432</td>
<td>2.192</td>
<td>1</td>
<td>0.139</td>
<td>0.528</td>
</tr>
</tbody>
</table>

LOGISTIC REGRESSION MODEL-6

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linben by benefits</td>
<td>0.263</td>
<td>0.288</td>
<td>0.836</td>
<td>1</td>
<td>0.361</td>
<td>1.301</td>
</tr>
<tr>
<td>Linexp by experience</td>
<td>-0.561</td>
<td>0.342</td>
<td>2.690</td>
<td>1</td>
<td>0.101</td>
<td>0.570</td>
</tr>
</tbody>
</table>

### Table 3. The results of Binary Logistic Regression Analyses for Model-1 and Model-2

<table>
<thead>
<tr>
<th>Variable</th>
<th>β</th>
<th>SE</th>
<th>OR</th>
<th>90% CI</th>
<th>Wald statistic</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security</td>
<td>1.443</td>
<td>0.325</td>
<td>4.234</td>
<td>[2.240, 8.005]</td>
<td>19.731</td>
<td>0.000</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.622</td>
<td>0.226</td>
<td>0.073</td>
<td></td>
<td>134.583</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Model-1: Trust = −2.622 + 1.443*Security

<table>
<thead>
<tr>
<th>Variable</th>
<th>β</th>
<th>SE</th>
<th>OR</th>
<th>90% CI</th>
<th>Wald statistic</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits</td>
<td>1.280</td>
<td>0.325</td>
<td>3.597</td>
<td>[1.902, 6.803]</td>
<td>15.503</td>
<td>0.000</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.666</td>
<td>0.244</td>
<td>0.069</td>
<td></td>
<td>119.663</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Model-2: Trust = -2.666 + 1.280*Benefits

### Table 4. The results of Binary Logistic Regression Analyses for Model-3 and Model-4

<table>
<thead>
<tr>
<th>Variable</th>
<th>β</th>
<th>SE</th>
<th>OR</th>
<th>90% CI</th>
<th>Wald statistic</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security</td>
<td>1.408</td>
<td>0.327</td>
<td>4.089</td>
<td>[2.155, 7.757]</td>
<td>18.583</td>
<td>0.000</td>
</tr>
<tr>
<td>Age</td>
<td>-0.619</td>
<td>0.361</td>
<td>0.538</td>
<td>[0.265, 1.093]</td>
<td>2.936</td>
<td>0.087</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.778</td>
<td>0.522</td>
<td>0.169</td>
<td></td>
<td>11.604</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Model-3: Trust = -1.778 + 1.408*Security -0.619*Age

<table>
<thead>
<tr>
<th>Variable</th>
<th>β</th>
<th>SE</th>
<th>OR</th>
<th>90% CI</th>
<th>Wald statistic</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits</td>
<td>1.254</td>
<td>0.327</td>
<td>3.503</td>
<td>[1.847, 6.646]</td>
<td>14.728</td>
<td>0.000</td>
</tr>
<tr>
<td>Age</td>
<td>-0.643</td>
<td>0.359</td>
<td>0.526</td>
<td>[0.260, 1.063]</td>
<td>3.202</td>
<td>0.074</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.792</td>
<td>0.526</td>
<td>0.167</td>
<td></td>
<td>11.595</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Model-4: Trust = -1.792 + 1.254*Benefits -0.643*Age
Table 5. The results of Binary Logistic Regression Analyses for Model-5 and Model-6

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\beta$</th>
<th>SE</th>
<th>OR</th>
<th>90% CI</th>
<th>Wald statistic</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security</td>
<td>1.375</td>
<td>0.328</td>
<td>3.956</td>
<td>[2.079, 7.529]</td>
<td>17.547</td>
<td>0.000</td>
</tr>
<tr>
<td>Work experience</td>
<td>-0.675</td>
<td>0.345</td>
<td>0.509</td>
<td>[0.259, 1.000]</td>
<td>3.836</td>
<td>0.050</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.440</td>
<td>0.627</td>
<td>0.237</td>
<td></td>
<td>5.283</td>
<td>0.022</td>
</tr>
</tbody>
</table>

**Model-5:** Trust = -1.440 + 1.375*Security -0.675*Work experience

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\beta$</th>
<th>SE</th>
<th>OR</th>
<th>90% CI</th>
<th>Wald statistic</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits</td>
<td>1.209</td>
<td>0.329</td>
<td>3.349</td>
<td>[1.759, 6.377]</td>
<td>13.538</td>
<td>0.000</td>
</tr>
<tr>
<td>Work experience</td>
<td>-0.677</td>
<td>0.342</td>
<td>0.508</td>
<td>[0.260, 0.994]</td>
<td>3.910</td>
<td>0.048</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.476</td>
<td>0.633</td>
<td>0.229</td>
<td></td>
<td>5.438</td>
<td>0.020</td>
</tr>
</tbody>
</table>

**Model-6:** Trust = -1.476 + 1.209*Benefits - 0.677*Work experience