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FOLLOWING THE FAMOUS. CELEBRITY CRYPTO ENDORSERS AND THEIR ROLE IN THE ADOPTION OF CRYPTO

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Abstract

Crypto-bedrijven maken veel gebruik van de aanbeveling van beroemdheden om publiciteit te krijgen voor hun nieuwe technologie. Ondanks de groei in populariteit en erkenning van cryptocurrencies zijn de contextuele en psychologische variabelen die de gedragsintenties van individuen voor het adopteren van cryptocurrency voorspellen nog niet bestudeerd. Deze studie heeft als doel de kenmerken van endorsers en hun impact op de effectiviteit van advertenties te onderzoeken. Er wordt gebruik gemaakt van het Source Credibility Model om de relatie te onderzoeken tussen crypto-advertenties met verschillende endorsers en de intenties van individuen om cryptocurrencies te adopteren. Om de centrale onderzoeksvraag te beantwoorden; "Wat is de invloed van crypto-aanbeveling van beroemdheden op de houding van gebruikers van sociale media met betrekking tot de adoptie van crypto?", werden er een pretest en een online experiment uitgevoerd ($N = 195$). Het onderzoeksmodel werd empirisch getest met behulp van de gegevens verzameld uit een gemaksteekproef met respondenten uit Vlaanderen. Resultaten tonen aan dat het type endorser in de advertentie geen significante invloed heeft op de houding of koopintentie ten opzichte van crypto.

Sleutelwoorden: cryptocurrency, Bitcoin, celebrity endorser, advertentie, source credibility model

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Introduction

In recent years, Bitcoin, blockchain and NFT's have become extremely popular (Schaupp & Festa, 2018). Crypto related businesses employ celebrity endorsers to get people to adopt the new technology that is crypto. This study investigates whether the use of celebrity endorsers in advertisements regarding crypto can be a successful advertising strategy.

Encrypted digital currencies, cryptocurrencies or crypto are a unique mode of exchange (Shahzad, Xiu, Wang, & Shahbaz, 2018). A cryptocurrency is a digital financial system with features resembling the traditional currencies but with a different transaction system and mean of money creation (Glaser, Zimmermann, Haferkorn, Weber, & Siering, 2014). Cryptocurrency uses cryptography to secure and verify transactions on something called a blockchain (Aggarwal, Patel, Varshney, & Oostman, 2019). Created in 2008, Bitcoin was the world's first decentralized cryptocurrency (R. Xie, 2019). They have no physical form and are created using internet technology. The Bitcoin payment system wants to overcome the trust-based model of conventional online transactions, which relies on financial institutions to process payments. Bitcoin does this by eliminating the need for third parties. Several types of cryptocurrencies exist based on a peer-to-peer mechanism to fulfill financial and security needs of the internet market (Shahzad et al., 2018). There are thousands of cryptocurrencies and new cryptocurrencies are being created all the time. Some of the best known cryptocurrencies are Ripple, Ethereum, Bitcoin, and Dogecoin. The popularity of this new technology has increased greatly in 2020, in part due to people living online because of quarantine (Ortmann, Pelster, & Wengerek, 2020; Vukovic, Maiti, Grubisic, Grigorieva, & Frömmel, 2021).

Modern advertisement strategies try to get brand exposure, attention, interest, desire and action (Adam & Hussain, 2017). To achieve this, marketers employ famous celebrities as endorsers, because celebrities have the power to create a greater impact on the consumer's buying behavior. Celebrities are well-known individuals because of their accomplishments in various areas (Speck, Schumann, & Thompson, 1988). A celebrity endorser uses this recognition on behalf of a consumer good by appearing with it in an advertisement (McGuire, 1985). Celebrities and experts are important and frequently used spokespersons because it is assumed that their unique characteristics make them more persuasive compared to 'normal' persons (Erdogan, 1999). A successful advertising message depends on the audience's perception of the expertise, trustworthiness and attractiveness of the celebrity endorser (Erdogan, 1999; Ismagilova, Slade, Rana, & Dwivedi, 2020; Ohanian, 1991). Tom Brady and Gisele Bündchen, Kim Kardashian and Matt Damon are examples of endorsers of crypto. What's more, celebrities are increasingly engaging in businesses not just as endorsers but also with a financial stake and decision-making role in the business (Muda, Musa, Mohamed, & Borhan, 2014). With crypto, some of these celebrities have become crypto-tastemakers (Cary, 2021). Crypto-tastemakers are people who attach their notoriety to a particular cryptocurrency. By doing this, they are advocating for its growth. Elon Musk is perhaps the most well-known example of a crypto-tastemaker.

Social media are a hub for online information where consumers educate one another about products, services, and brands (Murugesan, 2007). There are indications of a predictive but inconsistent relationship between social media and crypto value (Duggan & Brenner, 2013; Mai, Shan, Bai, Wang, & Chiang, 2018; K. Xie & Lee, 2015). Bitcoin users are mostly heavy social media users (Mai et al., 2018), thus social media messages may naturally have an impact on the Bitcoin users' behavior. In addition, advertisements of crypto are frequently shown on social media. Therefore, studying users' intentions through social media use is an interesting way of examining digital currency adoption. The present study extends prior research by examining the differential effects of using celebrity endorsers within a single experimental study. Information from a credible source can influence beliefs, opinions, attitudes

and/or behaviour through internalisation (Erdogan, 1999). This is a process whereby receivers accept a source influence in terms of their personal attitude and value structures. The celebrity endorsers of crypto could act as catalysts for crypto adoption by social media users. This study looks at the role of advertisements with endorsers in influencing the attitude towards crypto. This leads to the central research question: What is the influence of celebrity crypto endorsers on the attitude of social media users regarding the adoption of crypto?

This master's thesis is structured around five main sections. After this introduction, the literature review explains the most important concepts and analyses the main findings derived from previously conducted research. In the third section, the method of the present study is explained. Next, the results of the study will be statistically presented. Lastly, a discussion with the implications of this study and its results are offered, followed by a brief conclusion.

State of The Art

Bitcoin and cryptocurrencies

Created in 2008, Bitcoin is the world's first decentralized cryptocurrency (R. Xie, 2019). The term Bitcoin encompasses both the Bitcoin virtual currency and the payment system as a whole. The concept of Bitcoin as peer-to-peer electronic cash was derived in 2008 by Satoshi Nakamoto, an alias of the unknown inventor of Bitcoin. This alternative source of money allows a person to send or receive payments directly without the involvement of financial institutions (Nakamoto, 2008). Bitcoins can be generated using open-source software, required to solve complex mathematical problems. Miners solve these mathematical problems and validate transactions to get rewarded by receiving new Bitcoins. The supply of total Bitcoins is a fixed amount of 21 million, and a predetermined algorithm indicates that the last Bitcoin would be mined in 2140 (Shahzad et al., 2018). Currently, 89% of the total 21 million Bitcoins have been mined. One of the purposes of the Bitcoin payment system is to overcome the trust-based model of conventional online transactions, which relies on financial institutions to process payments. A public ledger, also known as a blockchain, chronologically records every transaction in the system and serves as the foundation of the Bitcoin verification system (Nakamoto, 2008). Since every transaction is encrypted and verified, blockchain technologically makes transaction reversal impossible and third-party verification unnecessary (Nadeem, Liu, Pitafi, Younis, & Xu, 2021).

Bitcoin has gained a great deal of media, governmental, and scholarly attention in the past few years (Nadeem et al., 2021). Research from Shahzad et al. (2018) reveals that Bitcoin has captivated the attention of individuals, media, and investors. This is due to several reasons which include profitability, security, rapid speed of transactions and other technological benefits. Bitcoin users are mostly heavy social media users (Mai et al., 2018), thus social media messages may naturally have an impact on the bitcoin users' behavior. The usage of internet technology may motivate people toward the adoption of cryptocurrencies such as Bitcoin (Whiting & Williams, 2013). To gain attention and to get people engaged in crypto, many crypto start-up projects use mass communication tools such as forums, Discord and Twitter to keep in touch with users around the world. Further, different social media channels, such as YouTube, are streaming and publishing videos related to crypto to engage people (Anson, 2021). An example of a cryptocurrency marketing strategy is an airdrop. These aim to create and motivate an interested pool of clients in a crypto project (Rohr & Wright, 2018). An airdrop is the unsolicited distribution of a cryptocurrency token or coin to numerous wallet addresses, usually for

free. Airdrops are often associated with the launch of a new cryptocurrency, primarily as a way of gaining attention. Hromov (2021) remarks that for crypto projects, the main way to attract investment is currently Initial Coin Offering (ICO). This is the method of attracting investments by issuing digital financial assets (tokens). The ICO process is similar to crowdfunding, in which support for a project is not just a donation but comes also with the expectation of possible benefits (Arnold et al., 2019).

Cryptocurrency adoption is still in its relative infancy. Accepting Bitcoin as a new mode of exchange depends on technological factors, but also on the attitude of users towards those factors. Social influences such as news messages and mass communication agenda-setting and can affect cryptocurrencies (Aggarwal et al., 2019). The current state of Bitcoin is not stable, which leads towards less acceptance of the blockchain technology (Shahzad et al., 2018). Volatility in the exchange rate of Bitcoin is a challenge of its credibility to global acceptance. Stark (2013) names lack of liquidity, a non-formalized market, high-security risks, lack of market regulations and governmental control as challenging issues for merchants, as well as common citizens. However, the significance of Bitcoin cannot be underestimated. The transaction cost of Bitcoin is comparatively less expensive as compared to the traditional system of payments, such as credit cards or PayPal, because of the non-involvement of third parties. The absence of a private record of transactions further heightens the degree of comfort and privacy of using Bitcoin. These two factors, namely the lower transaction costs and extreme privacy, will ultimately raise the number of Bitcoin adopters (Elwell, Murphy, Seitzinger, & Murphy, 2013). However, perceived risk associated with Bitcoin cryptocurrency is a boundary condition on the relationship between the intentions of individuals and their actual behavior toward the adoption of Bitcoin (Anser et al., 2020).

Crypto exchange platforms

A cryptocurrency exchange is a platform that provides users with the possibility to trade cryptocurrencies for other cryptocurrencies or fiat money. The demand for the services of such platforms has grown ever since the introduction of Bitcoin and the corresponding trading volume at the exchanges has steeply increased (Schueffel & Groeneweg, 2019). Buying, selling and trading cryptocurrencies is conducted at these online cryptocurrency exchanges which operate continuously, i.e., 24 hours a day, 7 days per week. On these crypto exchanges anyone can open accounts and trade crypto assets. "The emergence of these exchanges has created an entire 'ecosystem' of services and participants, seeking to provide liquidity, exploit price discrepancies for profit, and to support investment by both retail and professional investors" (Giudici, Milne, & Vinogradov, 2020). The task of choosing a suitable crypto exchange is met with some difficulties. Cryptocurrency exchanges display an extensive range of characteristics but often conceal certain features from current and prospective users. This makes their services largely incomparable for the average cryptocurrency investor (Schueffel & Groeneweg, 2019). Consequently, the consumer is largely left on his or her own when choosing the best suited service provider. The crypto exchanges can use endorsers to create publicity for their service. Marketeers can use celebrities to influence consumer-purchasing decisions with the aim of increasing sales and expanding their product market share (Kumar, 2011). Crypto exchanges already practice using celebrity endorsers to create popularity. The celebrity couple Tom Brady and Gisele Bündchen have established a long-term partnership with crypto platform FTX. Both Brady, an American football player, and Bündchen, a famous supermodel, are ambassadors for FTX (Hajric, 2021). Tom Brady and Gisele Bündchen also starred in a \$20 million ad campaign for FTX (Wayt, 2021). Sam Bankman-Fried, FTX founder and CEO, said that more and more people are getting interested in crypto, but athletes are high profile and among the easiest to see (Birnbaum, 2021). Crypto.com,

another crypto exchange platform, recruited Hollywood star Matt Damon as the face of a \$100 million television and billboard marketing campaign. Modern advertisement strategies try to get brand exposure, attention, interest, desire and action (Adam & Hussain, 2017). To achieve this, marketers employ famous celebrities as endorsers, because celebrities have the power to create a greater impact on the consumer's buying behavior.

The endorsement strategy

Celebrity endorsement

Celebrities are well-known individuals because of their accomplishments in areas such as sports, entertainment, politics, broadcasting, corporate etc. (Speck et al., 1988). Celebrity endorsement in advertising is grounded in a common marketing assumption. Corporations have realized that celebrity endorsers can enhance advertisement credibility and liking as well as brand image, brand awareness and purchase behavior (Ford, 2018). Celebrities are used as endorsers of brands in advertisements thanks to their known image. The established definition of celebrity endorser by McGuire (1985) describes a celebrity endorser as an individual who enjoys public recognition and who uses this recognition on behalf of a consumer good by appearing with it in an advertisement. Celebrities and experts are important and frequently used spokespersons because it is assumed that their unique characteristics make them more persuasive compared to 'normal' persons (Erdoğan, 1999). Research from Fleck et al. (2014) concluded that celebrity association with a brand seems to have an increasing effect on the brand's importance and salience. The celebrity endorsement strategy in advertising is frequently used because it is more effective than celebrity-less endorsement in terms of producing desirable outcomes for the sponsor (Muda et al., 2014). This results in consumers identifying with celebrities and internalizing what is said about the endorsed products. In a way, some celebrity endorsers could be considered experts in their own fields, since they have to be the best in their discipline to become a celebrity (Ohanian, 1990). Expert endorsers are not necessarily celebrities, however. The expertise of an endorser comes from the ability to provide information to others because of experience, education, or competence (Horai, Naccari, & Fatoullah, 1974). Advertisements using an expert endorser will tend to make viewers more agreeable to the conveyed meanings (Biswas, Biswas, & Das, 2006). For more involving, durable, higher priced, or high technology-oriented products, expert endorsements are likely to have stronger effects than celebrity endorsements. This is because of the greater level of involvement with the product purchase (Petty, Cacioppo, & Schumann, 1983). Biswas et al. (2006) argue that expert endorsers are likely to have greater effects than celebrity endorsers for high technology-oriented products.

When celebrities endorse a product, the meaning developed around a particular celebrity is intended to be transferred to a company, brand, or product (Amos, Holmes, & Strutton, 2008). What's more, celebrities are increasingly engaging in business not just as endorsers but also with a financial stake and decision-making role in the business. However, not all celebrity endorsers are entrepreneurs. What distinguishes the two terms is the types of engagement acts the celebrity is associated with. Hunter (2009) defines celebrity entrepreneurs as individuals who are known for their well-known-ness and take part both in owning or running a venture (or are portrayed as doing so). Celebrity entrepreneurs are in a position to deliver similar benefits while they endorse their own products. Both celebrity endorsers and celebrity entrepreneurs can and do promote brands (Pringle & Binet, 2005). In some cases the celebrity endorser, perhaps not officially an employee or owner, has artistic direction, managerial input, etc. over the products they promote. It can also be that the supposed

celebrity entrepreneur does nothing more than endorse the products in which they have an equity stake.

Recently, a growing number of celebrities are posting crypto related content on their social media pages. Mäntymäki and Riemer (2016) argued that the effective use of social media increases the knowledge of users about several things happening in society. Social media brings stakeholders closer and companies dealing with financial services use the power of social media to enhance their customer services, to increase their reputation and to retain their competitive advantage (Anser et al., 2020; López, Sicilia, & Moyeda-Carabaza, 2017). A notable event was when Kim Kardashian posted an Instagram story about the ethereummax crypto for which she was paid (Locke, 2021). Other celebrities such as Floyd Mayweather (Knox, 2021) and Lionel Messi (Cuthbertson, 2018) have also been paid by crypto services to promote them on their social media pages. Mark Cuban, American billionaire, entrepreneur and owner of the Dallas Mavericks professional basketball team, endorses crypto on his social media. For a period of time, the Dallas Mavericks were accepting Dogecoin as payment for tickets (Porterfield, 2021). The Dallas Mavericks also announced a five-year partnership with a cryptocurrency brokerage (Rader, 2021). Recently, the crypto brokerage Crypto.com has taken the media by storm. A 20-year, \$700-million naming rights agreement was announced between Crypto.com and the formerly named Los Angeles' Staples Center, home to the L.A. Lakers basketball team. The Los Angeles' Staples Center will now be rebranded as the Crypto.com Arena (Mac, 2021). Crypto.com also has active branding partnerships with Formula 1, NBA team Philadelphia 76ers, French football team Paris Saint-Germain, the Italian Lega Serie A, and the Ultimate Fighting Championship (UFC) (Rivers, 2021).

Crypto-tastemakers

Cryptocurrency tastemakers (crypto-tastemakers in short) are people who attach their notoriety to a particular cryptocurrency (Cary, 2021). While social influences such as news messages and mass communication agenda-setting can affect cryptocurrencies (Aggarwal et al., 2019), crypto-tastemakers can advocate for the growth of crypto. Research on the impact of crypto-tastemakers by Cary (2021) looked at the real time effects of the actions of a major celebrity on the price of a cryptocurrency to which the celebrity has affixed themselves as a crypto-tastemaker. The best-known celebrity becoming a crypto-tastemaker is Elon Musk. He connected his celebrity status to Bitcoin and Dogecoin. Musk claimed via Twitter on 1 April 2021 that "SpaceX is going to put a literal Dogecoin on the literal moon" (Ante, 2021). Later it was announced that Musk would be hosting the 8 May 2021 episode of Saturday Night Live (SNL). Musk confirmed this via a tweet in which he called himself the "Dogefather". The real time impact of Elon Musk as a crypto-tastemaker while hosting SNL was studied and results indicated that Musk's performance significantly and negatively affected the price of Dogecoin. "Since less mature cryptocurrencies are more likely to be influenced by a crypto-tastemaker, this suggests that less mature cryptocurrencies may have a more complex nature to their price variance" (Cary, 2021, p. 2235). Elon Musk is a great example of a crypto-tastemaker for several reasons. He has been a public figure for decades and he has an immense online following because of his business ventures and immense wealth. Musk's notoriety and divisiveness, paired with his interest in cryptocurrencies, makes Musk a crypto-tastemaker.

All of this illustrates that crypto and celebrities are closely linked. Crypto companies are also heavily using celebrity endorsement to gain publicity. But is this the right way to promote the new technology? This study aims to research the characteristics of endorsers and their impact on the effectiveness of advertisements. In sum, from all this follows the central research question of this study:

RQ: *What is the influence of celebrity crypto endorsers on the attitude of social media users regarding the adoption of crypto?*

The Source Credibility Model

In the literature, the Source Credibility Model is often used to analyse celebrity endorsement (Erdogan, 1999). The reasons why people enter the crypto world and accept currencies such as Bitcoin have already been studied using the Technology Acceptance Model (Folkinshteyn & Lennon, 2016; Wonjun, 2018). The Theory of Planned Behavior can be another model to explore crypto use, as research from Anser et al. (2020) found that social media use is positively associated with users' intentions to adopt Bitcoin through their attitudes, subjective norms, and perceived behavioral control.

But do all tastemakers exert the same effect on the adoption of crypto? According to the Source Credibility Model, the acceptance and favourable response to an advertising message depends on the audience's perception of the expertise and trustworthiness of the message source (Erdogan, 1999). Source credibility is a term used to imply a communicator's positive characteristics that affect the receiver's acceptance of a message (Ohanian, 1990). Erdogan (1999) states that information from a credible source can influence beliefs, opinions, attitudes and/or behavior through internalization. This is a process whereby receivers accept a source influence in terms of their personal attitude and value structures. There are three components of celebrity endorser credibility: trustworthiness, expertise and attractiveness (Ohanian, 1990). Through using a celebrity as endorser, marketers excite their consumers by showing them a very admirable and famous face and succeed in creating a demand for their product. Since celebrity entrepreneurs are also endorsers, Muda et al. (2014) proposed that the three components to measure celebrity endorser credibility could be applied to assess celebrity entrepreneurs who endorse a product in advertisements. In general, celebrity association with a brand seemed to have an increasing effect on the brand's importance and salience (Fleck, Michel, & Zeitoun, 2014). The research of Ismagilova et al. (2020) concluded that characteristics of source credibility, such as source expertise, trustworthiness and homophily (attractiveness) play an important role in consumer's perception of information credibility and usefulness, information adoption and intention to buy. Information from a credible source can influence beliefs, opinions, attitudes and/or behavior through internalization (Erdogan, 1999). This is a process whereby receivers accept a source influence in terms of their personal attitude and value structures. Attitude has been viewed as the predisposition of a person to respond in a particular way toward an object and as a function of beliefs (Ajzen & Fishbein, 1975). Attitude can also be seen as the categorization of a stimulus object along an evaluative dimension (Cooper, Blackman, & Keller, 2015).

H1a: *Crypto advertisements with crypto experts will generate a more positive attitude towards crypto than crypto advertisements with (i) celebrities, and (ii) laypeople*

Expertise refers to knowledge, experience or skills possessed by an endorser. Goldsmith, Lafferty, and Newell (2000, p. 43) argue that that "credibility refers to the extent to which the source is perceived as possessing expertise relevant to the communication topic and can be trusted to give an objective opinion on the subject". According to Ohanian (1990), it does not really matter whether an endorser is an expert or not, all that matters is how the audience perceives the endorser. A celebrity that is perceived more as an expert has been found to be more persuasive and to generate more intentions to buy the brand (Ohanian, 1991). For technical products, research has found that the expertise factor of the celebrity is a significantly more important factor when matching celebrities to products (Till &

Busler, 1998, 2000). For high technology-oriented products, an endorsement by a person perceived to be an expert for that product is more effective in reducing perceived risk than an endorsement by a celebrity or non-celebrity non-expert (Biswas et al., 2006). Research from Ohanian (1991) found that a source/celebrity that is more expert generates more intentions to buy. Results of the study from Kumar (2011) also found that celebrity endorsements positively impact the purchase intention of the consumers.

H1b: *Crypto advertisements with crypto experts will generate more buying intention than crypto advertisements with (i) celebrities, and (ii) laypeople*

H1c: *If the attitude is more positive, the buying intention will be higher*

Attractiveness of an endorser makes customers form a favourable perception (Erdogan, 1999). This feature of attraction doesn't solely include physical appearance, but also the lifestyle and personality dimension of the endorser. The celebrity-product match model states that attractive endorsers are more effective when promoting products used to enhance one's attractiveness (Kamins, 1990) and that the impact will be not significant in the case of a product that is unrelated to 'attractiveness'. In an exhaustive review, Joseph (1982) summarized experimental evidence in advertising and related disciplines regarding physically attractive communicators and their impact on opinion change, product evaluation, amongst other measures. He concluded that attractiveness of endorsers had a positive impact on attitude towards products with which they are associated. Again, research has found that celebrity endorsements positively impact the purchase intention of the consumers (Kumar, 2011). Further, Zhu, Amelina, and Yen (2020) investigated how endorsements on social media affect consumers' perception of a brand, and ultimately, their impulse to buy. Brand attitude and merchandise attractiveness were positively related to the impulse to purchase.

H2a: *Perceived attractiveness of the crypto advertisement source will have a mediating effect on the attitude towards crypto*

H2b: *Perceived attractiveness of the crypto advertisement source will have a mediating effect on buying intention*

Trustworthiness refers to the honesty, integrity and believability of an endorser (Erdogan, 1999). It is an important construct in persuasion and attitude change research. Findings of McGinnies and Ward (1980) suggest that an expert source that is viewed as trustworthy can induce opinion change. Prior research from Friedman and Friedman (1976); Friedman, Santeramo, and Traina (1978) investigated several correlates of trustworthiness and concluded that celebrities who are liked will also be trusted. The extant literature on celebrity endorsers suggests that trustworthiness is an important predictor of celebrity endorsement effectiveness. Some research has even stated that perceived communicator trustworthiness produces a greater attitude change than perceived expertise (McGinnies & Ward, 1980). Source expertise and trustworthiness invariably contribute to source credibility and celebrity trustworthiness certainly represents a critical issue for advertisers (Amos et al., 2008). Like with attractiveness, also the effect of trustworthiness on attitude and buying intention is analysed.

H3a: *Perceived trustworthiness of the crypto advertisement source will have a mediating effect on the positive attitude towards crypto*

H3b: *Perceived trustworthiness of the crypto advertisement source will have a mediating effect on buying intention*

Moreover, it should be noted that some people are not new to crypto. Some respondents might be more familiar with it or have some sort of stake in crypto already. It would be interesting to study whether already owning crypto influences the effects of the advertisements. Research from Biswas et al. (2006) remarked that the positive effect of an expert endorser is further magnified when the consumer is highly knowledgeable about the product.

***H4a:** Already owning crypto has a moderating effect on having a positive attitude towards crypto after seeing crypto advertising*

***H4b:** Already owning crypto has a moderating effect on buying intention after seeing crypto advertising*

Method

In order to empirically test the effects of celebrity endorsement in crypto advertising, an experimental study is conducted. The experimental method involves the manipulation and isolation of an independent variable to create conditions (Jhangiani, Chiang, & Price, 2015). Participants are assigned ad random to one of three conditions (source: celebrity, expert, laypeople), creating different groups experiencing different treatments of the independent variables. Subsequently, the groups are compared to measure the effect of the manipulation on the dependent variables. This experimental research uses manipulated advertising stimuli. Therefore, correct and relevant test stimuli needs to be developed (Geuens & De Pelsmacker, 2017). To achieve this, a pretest is done to test the manipulations beforehand and to substantiate and justify the choices of the actual experiment.

Pretest

Research stimuli

Specific research stimuli need to be created to clearly reflect the desired manipulation. For this study, different fictive advertisements for a crypto service are created. Following the advice from Geuens and De Pelsmacker (2017), only those elements of the stimuli are changed that are needed for the manipulation. The rest of the advertisement is the same across manipulated conditions. Manipulation control is easier if the body of the ad is not too distracting or confusing. The aim is to create a good stimulus that was well-made and realistic, but at the same time as simple as possible.

In the research stimuli, a brand has to be used to create realism. However, the brand in itself does not play a role in this study since it looks at crypto as a whole. According to Geuens and De Pelsmacker (2017), it is advisable to use hypothetical or new brands, to avoid potentially confounding effects of previous exposure or experience with existing brands. When existing brands are used, respondents could be aware of them and may have positive or negative beliefs, feelings and attitudes towards them. In all stimuli, the same brand is used, which should not affect differences in effect. For the advertisements, the service "Crypto" was used to avoid confounding effects and to make the subject of the service very clear.

The first set of stimuli are social media ads for a fictive crypto exchange platform, which use a crypto expert as endorser. These endorsers are heavily linked to crypto and should be considered experts. The second set of stimuli are social media ads for a fictive crypto exchange platform which use a celebrity as endorser. These endorsers are established celebrities and are well-known for their achievements in respectively the sports and film industry. The third set of stimuli are social media ads for a fictive crypto exchange platform which use a picture of a layperson.

Procedure

The pretest aims to determine which endorsers are the best fit for the advertisement with an expert, a celebrity and a layperson. The sample of the pretest was a convenience sample of 30 people ($M_{\text{age}} = 23.23$, $SD = 6.87$). All respondents had to give their consent to be part of the study by indicating whether they agreed to participate (1 = Yes, I agree; 2 = No, I do not agree). Social media advertisements of a fictive crypto exchange platform were designed using a template of an existing advertisement. In total, nine different advertisements were designed with three sorts of endorsers. The first three advertisements had celebrity endorsers of crypto, namely Tom Brady, Snoop Dogg and Matt Damon). The other three had crypto experts, namely Elon Musk, Jack Dorsey and Vitalik Buterin. Finally, the last three advertisements had fictive laypeople for which stock pictures in combination with random generated names and jobs were used.

Using a within-subjects design, the respondents were tasked to answer a questionnaire consisting of two questions for each of the nine advertisements that were shown. The first question they had to answer was whether or not they knew the depicted person (1 = Yes, 2 = No). The second question asked if the respondent thought if the person in the ad was an expert, a celebrity or a layperson (1 = Expert, 2 = Celebrity, 3 = Layperson).

Analyses

To check which person was best fit for each role, a one sample t-test was done. Every type of person was compared to the type of person they were perceived as by the respondents. Following from the answers from the respondents, the expert needs to have a mean close to the test value of 1, the celebrity needs to have a mean close to a test value of 2 and the layperson needs a mean close to the test value of 3.

For the role of expert, Elon Musk was known by virtually everyone. However, he was almost equally perceived as an expert and as a celebrity. The mean value of expert ($M_{\text{ElonMusk}} = 1.34$, $SD = .48$) was significantly different than the test value of 1; $t(28) = 3.84$, $p < .001$. In general, Jack Dorsey and Vitalik Buterin were not well-known, but they were more frequently perceived as experts. The mean value of expert for Dorsey ($M_{\text{JackDorsey}} = 1.33$, $SD = .68$) was significantly different than the test value of 1; $t(26) = 2.55$, $p < .01$. The mean value of expert ($M_{\text{VitalikButerin}} = 1.38$, $SD = .80$) was also significantly different than the test value of 1; $t(25) = 2.44$, $p < .05$. Out of the two, Dorsey was better known and the perception of him as an expert has a lower standard deviation than that of Vitalik Buterin. Due to these findings, it was decided to select Jack Dorsey as expert. However, in the final stimuli, it is made more clear that Dorsey is a crypto expert. This was done by editing the advertisement with a message that explicitly calls Dorsey a crypto advocate and crypto investor.

For the celebrity, Tom Brady was the least fit person. His mean value of celebrity ($M_{\text{TomBrady}} = 2.10$, $SD = .40$) was not significantly different than the test value of 2; $t(29) = 1.36$, $p = .09$. For Snoop Dogg, the mean value of celebrity ($M_{\text{SnoopDogg}} = 2.03$, $SD = .19$) was not significantly different than the test value of 2; $t(28) = 1.00$, $p = .16$. For Matt Damon, the mean value of celebrity ($M_{\text{MattDamon}} = 1.97$, $SD = .33$) was not significantly different than the test value of 2; $t(28) = -.57$, $p = .29$. Matt Damon had the highest p-value. However, 97% of the respondents indicated that they knew Snoop Dogg, compared to 90% that knew Matt Damon. The means of Snoop Dogg and Matt Damon are equally close to 2, but the standard deviation for Snoop Dogg is lower. For this reason, it was decided to use Snoop Dogg as the celebrity endorser.

For the layperson, it is clear that the fictive person Victor Daniels is the best fit. For Victor Daniels, the mean value of layperson ($M_{\text{VictorDaniels}} = 2.92$, $SD = .27$) was not significantly different than the test value

of 3; $t(25) = -1.44, p = .08$. For Lewis Wilson, the mean value of layperson ($M_{\text{LewisWilson}} = 2.50, SD = .86$) was significantly different than the test value of 3; $t(25) = -2.96, p < .05$. For Nikolas Gunn, the mean value of layperson ($M_{\text{NikolasGunn}} = 2.69, SD = .68$) was significantly different than the test value of 3; $t(25) = -2.31, p < .05$. With a mean of 2,92, Victor Daniels is perceived almost perfectly as a layperson. Furthermore, the p-value is not significant. In sum, Jack Dorsey was chosen as the expert endorser, Snoop Dogg was chosen as the celebrity endorser and Victor Daniels was chosen as the layperson endorser for the different crypto advertisements (see appendix A).

Experiment

Procedure

Participants are invited by receiving a link to the online Qualtrics experiment. All participants are welcomed, followed by a brief explanation of the purpose of the study and general information. If the participants agree to the terms, they are able to proceed with the questionnaire. The participants are informed that they could discontinue the study at any time.

This experiment has a between-subjects factorial design. At the start of the survey, participants are asked about their demographic information. They are also asked if they are active on social media and whether they have already bought crypto or not. Subsequently, the respondents are randomly assigned to one of three experimental groups and are presented with a questionnaire. The questionnaire for each group contains the exact same questions, but differs from each other only in the experimental exposure. When the advertisement is shown, respondents are able to answer questions while watching the advertisement. Being able to view the advertisement while answering questions ensures that respondents have the opportunity to carefully examine the advertisement (Geuens & De Pelsmacker, 2017).

Sample

The respondents of this study are restricted to adults from the age of 18 years and above. The minimum age for participating is set at 18 years old in order to exclude participants who are not financially independent and to have respondents who are permitted to hypothetically create a crypto platform account. There are no further restrictions in order to participate in the online survey. The questionnaires of this study were disseminated online, open to anyone within the age group selected for the study. Participants were recruited through email and social media (i.e., Facebook Messenger and WhatsApp). Consequently, the sampling method could best be described as a combination of two non-probability sampling techniques. These are convenience- and network or snowball sampling. Convenience sampling draws a sample of that part of the population that is close to hand, readily available, or convenient (Bhattacharjee, 2012).

A total of $N = 223$ respondents were recruited. Respondents who did not give their consent ($N = 2$) and who stopped prior to finishing the experiment ($N = 26$) were excluded from the sample. The final sample consisted of 195 respondents between 18 and 59 years old (73 male, 123 female, 1 X, $M_{\text{age}} = 24.19, SD = 6.40$).

A G*power analysis was done to check if the total number of respondents is sufficient (Faul, Erdfelder, Lang, & Buchner, 2007). A medium effect size of .25, a power of .90 and a significance level of .05 with three treatment groups estimates a total sample size of 207. An effect size of .30, a power of .90 and a significance level of .05 with three treatment groups estimates a total sample size of 144. The total sample of this study lies between these two numbers and should be sufficient.

Measures

Demographic information. Respondents had to indicate their age, gender (1 = male, 2 = female, 3 = X), degree (0 = no degree, 1 = preschool, 2 = middle school, 3 = bachelor degree, 4 = master degree, 5 = doctoral degree).

Control variables. It is also investigated whether control variables have any influence on the intention to adopt crypto. The included control variables in this study are gender, education level, social media use and already owning crypto.

Source credibility. Source credibility was measured by the 15-item scale of Ohanian (1990) on a 7-point Likert scale. The evaluation questionnaire of this study includes measures of attitude toward the celebrity endorser. All attitude items use semantic differential scales with a value of one associated with totally disagreeing with a word or statement and a value of seven associated with the totally agreeing. The measurement items were translated into the native language and back-translated into English. Attitude toward the advertisement is measured using the items from the celebrity endorser credibility scale from Ohanian (1990). Attractiveness is measured by using the items attractive/unattractive, classy/not classy, beautiful/ugly, elegant/plain, sexy/not sexy. Trustworthiness is measured by using the items trustworthy/ untrustworthy, dependable/ undependable, honest/dishonest, reliable/ unreliable, sincere/ insincere. Expertise is measured by using the items expert/ not expert, experienced/ inexperienced, knowledgeable/ unknowledgeable, qualified/ unqualified, skilled/ unskilled. All items are measured on a seven-point Likert scale. Cronbach's alpha indicated a highly reliable scale with a reliability coefficient of .87 or higher.

Attitude. Attitude toward the advertised brand is measured by the scale from Spears and Singh (2004). They developed valid measures that can be consistently used across studies. In their conceptualization, attitude toward a brand is a relatively enduring, unidimensional summary evaluation of the brand that presumably energizes behavior. The items use semantic differential scales with a value of one associated with the more negative word and a value of seven associated with the more positive word. Attitude towards the brand is measured by the items unappealing/appealing, bad/good, unpleasant/pleasant, unfavorable/favourable, unlikable/likable ($\alpha = .89$).

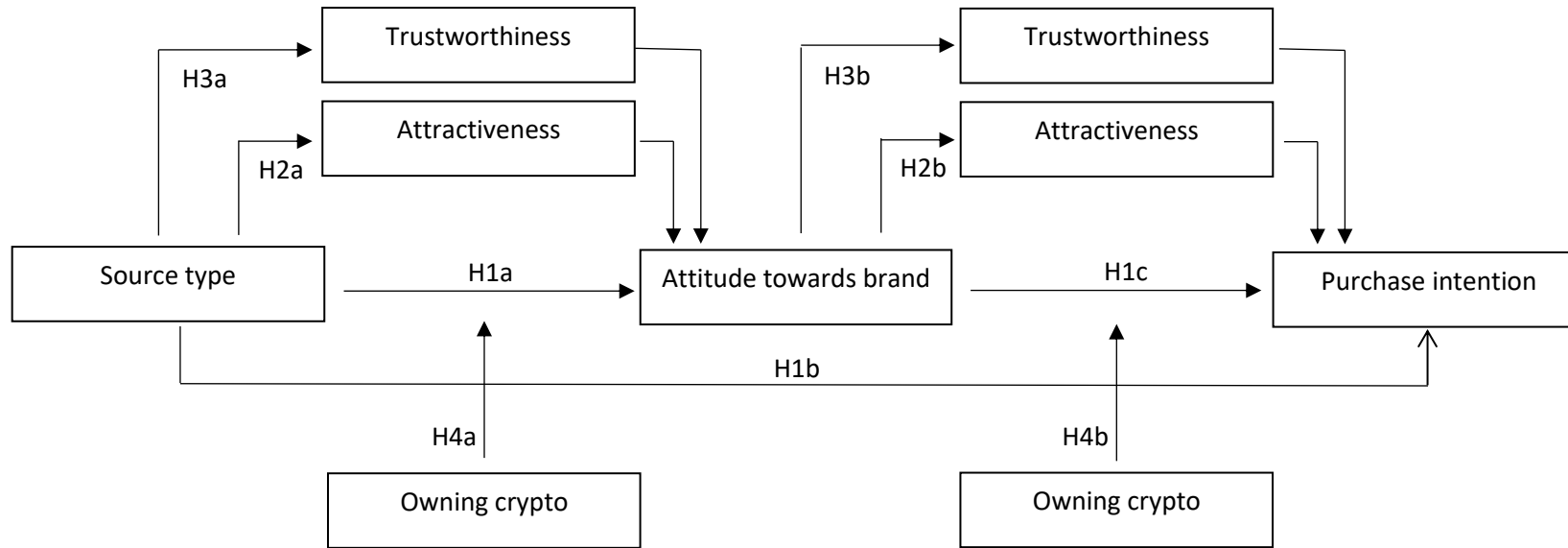
Purchase intention. Spears and Singh (2004) also constructed a scale for purchase intentions. Purchase intentions are personal action tendencies relating to the brand (Bagozzi & Burnkrant, 1979; Ostrom, 1969). Spears and Singh (2004) defined purchase intentions as an individual's conscious plan to make an effort to purchase a brand. They hypothesized a link between the attitude and behavioral intent. Purchase intentions are measured on a seven-point Likert scale by the items never/definitely, definitely do not intend to buy/definitely intend, very low/high purchase interest, definitely not buy it/definitely buy it, probably not/probably buy it ($\alpha = .95$).

Data-analysis

To create the experiment, the online software of Qualtrics was used. Respondents are able to participate in the experiment via an online link to a Qualtrics experiment. The data collected from Qualtrics was exported to SPSS, in which the operationalization and analysis of variables was done. The data gathered by the online experiment was analysed with the SPSS software using descriptive and inferential statistics. The descriptive statistics are expressed in mean, frequency counts, and percentages. Inferential statistics include t-tests (independent and two-sample t-test), correlation tests, and regression tests.

Conceptual framework

Celebrity endorsement



Results

Assumptions

Which background variables are a significant predictor of attitude towards crypto? The background variables that were checked are age, gender, degree, use of social media and owning crypto. A linear regression analysis was done to test the following assumptions, with attitude being the dependent variable and the background variables as independent variables. The relationship between independent(s) and dependent is linear in nature (Mortelmans & Dehertogh, 2007). The linearity requirement was tested by visually inspecting and verifying the LOWESS line (LOESS function in SPSS) on scatter plots. After inspection, every background variable did not fulfil the linearity assumption. Using a visual inspection, we see that the residuals in the model are on an almost perfect line. This means that the residuals are normally distributed and the normality requirement is met. The 'Durbin-Watson' test ($= 1.65$) indicated that the independence requirement has been violated ($DW < 1.70$). The value of this test is between 0 and 2, the more it tends to 2, then the requirement has certainly not been violated. Also homoscedasticity was examined, which is the assumption that in a regression analysis the residuals at each level of the predictive variable(s) have equal variances" (Field, 2013). After visual inspection of the residues, there was a slight megaphone pattern to indicate slight heteroscedasticity. There is no certain homogeneity of variance. To assess multicollinearity, the VIF (Variance Inflation Factor) test ($= 1.08$) was smaller than 10, which means that there is no high multicollinearity. This assumption has therefore not been violated.

Since some assumptions have been violated, the bootstrap method is applied. That model predicts 7.2% of the explained variance of attitude towards crypto, $F(5,167) = 2.58$, $p < .05$. Furthermore, it indicates that age is a significant predictor of attitude, $\beta = -.27$ $[-.40, -.13]$, $p < .001$. Also, degree appears to be a significant predictor of attitude, $\beta = -1.44$ $[-.10, 2.71]$, $p < .05$. The other predictors do not significantly explain the individuals' attitude towards crypto.

The role of expert endorser on attitude and buying intention towards crypto

There is no significant positive correlation between attitude towards crypto and buying intention regarding crypto ($r = .10$, $p = .17$). This means, in general, that people who have a positive attitude towards crypto don't necessarily have a high buying intention regarding crypto. A MANCOVA was conducted with attitude and buying intention as the dependent variables and type of advertisement as the fixed factor. Age and degree were included as covariates. Using Wilk's Λ , results showed no main effect for type of endorser $\Lambda = .96$, $F(4, 376) = 2.01$, $p = .09$, $\eta_p^2 = .02$. The main effect for age is significant $\Lambda = .93$, $F(2, 188) = 6.91$, $p < .001$, $\eta_p^2 = .07$. The main effect for degree is not significant $\Lambda = .97$, $F(2, 188) = 2.83$, $p < .001$, $\eta_p^2 = .03$. The interaction effect is significant, $\Lambda = .76$, $F(2, 188) = 30.28$, $p < .001$, $\eta_p^2 = .24$. The between-subject test revealed that solely age predicted differences in attitude, $F(1, 193) = 13.72$, $p < .001$, $\eta_p^2 = .07$. Age did not predict significant differences in buying intention. The LSD post-hoc tests revealed no significant differences in attitude between seeing an ad with an expert or a celebrity ($M = -2.20$, $SD = 1.13$, $p = .05$), seeing an ad with a celebrity or a layperson ($M = 1.22$, $SD = 1.14$, $p = .29$), or seeing an advertisement with a layperson or an expert ($M = .98$, $SD = 1.13$, $p = .39$). These results reject H1a, because seeing an advertisement about crypto with an expert did not significantly increase attitude towards crypto as opposed to seeing an advertisement with a celebrity or a layperson. The LSD post-hoc tests also revealed no significant differences in buying intention between seeing an ad with an expert or a celebrity ($M = 1.57$, $SD = 1.46$, $p = .28$), seeing an ad with a celebrity or a layperson ($M = -2.82$, $SD = 1.46$, $p = .06$), or seeing an advertisement with a layperson or an expert ($M = 1.26$, $SD = 1.45$, $p = .39$). These results reject H1b, because seeing an advertisement

about crypto with an expert did not significantly increase buying intention towards crypto as opposed to an advertisement with a celebrity or a layperson.

The relation between attitude and buying intention

In order to test H1c, a linear regression analysis investigated the relationship between a person's attitude and their buying intention. The regression analysis with attitude as the predictor and buying intention as the outcome variable showed that a person's attitude did not significantly predict their buying intention $b = .12$, $\beta = .10$, $t(193) = 1.37$, $p = .17$. The model explains 10% of the variance in buying intention $R^2 = .10$, $F(1, 192) = 1.87$, $p = .17$.

Another regression analysis was done with attitude, age, degree and sex as the predictors and buying intention as the outcome variable. This analysis also showed that a person's attitude did not significantly predict their buying intention $b = .12$, $\beta = .10$, $t(193) = 1.33$, $p = .19$. The model explains 2% of the variance in buying intention $R^2 = .02$, $F(3, 190) = 1.39$, $p = .25$. With a value of $p < .001$, gender showed to have a significant impact on buying intention. Several analyses ensured no violations of the assumptions of normality, linearity, independent errors and homoscedasticity. The model thus seems to generalize well to the population. In sum, the relationship between a person's attitude toward crypto and their buying intention is not significant, therefore, H1c is rejected.

Assessing the effect of source attractiveness on attitude

In order to test H2a, a linear regression analysis investigated the relationship between a person's perceived attractiveness of an endorser and their attitude towards crypto. The regression analysis with perceived attractiveness of the endorser as the predictor and attitude as the outcome variable showed that perceived attractiveness did significantly predict attitude $b = .41$, $\beta = .42$, $t(192) = 6.42$, $p < .001$. The model explains 18% of the variance in attitude $R^2 = .18$, $F(1, 192) = 41.23$, $p < .001$. There is a significant effect between a person's perceived attractiveness of an endorser in a crypto advertisement and their attitude towards crypto. The model with perceived attractiveness and age and degree as predictors explains 28% of the variance in attitude $R^2 = .28$, $F(3, 192) = 24.52$, $p < .001$. Age, $b = -.34$, $\beta = -.34$, $t(192) = -5.14$, $p < .001$ and degree, $b = 1.21$, $\beta = .55$, $t(192) = 2.21$, $p < .05$ have a significant impact on attitude. In conclusion, the perceived attractiveness of the endorser in a crypto advertisement has a significant impact on the attitude towards crypto, which means H2a is accepted.

Assessing the effect of source attractiveness on buying intention

In order to test H2b, a linear regression analysis investigated the relationship between a person's perceived attractiveness of an endorser and their buying intention. The regression analysis with perceived attractiveness as the predictor and buying intention as the outcome variable showed that perceived attractiveness did not significantly predict their buying intention $b = .10$, $\beta = .08$, $t(191) = 1.01$, $p = .29$. The model explains less than 1% of the variance in attitude $R^2 = .01$, $F(1, 191) = 1.17$, $p = .29$. In the model with perceived attractiveness and age and degree as predictors, neither age or degree have a significant effect on buying intention. In conclusion, the perceived attractiveness of the endorser in a crypto advertisement has no significant impact on the buying intention towards crypto and H2b is rejected.

Assessing the effect of source trustworthiness on attitude

In order to test H3a, a linear regression analysis investigated the relationship between a person's perceived trustworthiness of an endorser and their attitude towards crypto. The regression analysis with perceived trustworthiness of the endorser as the predictor and attitude as the outcome variable showed that perceived trustworthiness did significantly predict attitude $b = .50$, $\beta = .46$, $t(193) = 7.16$,

$p < .001$. The model explains 21% of the variance in attitude $R^2 = .21$, $F(1, 193) = 41.23$, $p < .001$. There is a significant effect between a person's perceived trustworthiness of an endorser in a crypto advertisement and their attitude towards crypto. The model with perceived trustworthiness and age and degree as predictors explains 28% of the variance in attitude $R^2 = .28$, $F(3, 193) = 24.12$, $p < .001$. Age, $b = -.27$, $\beta = -.26$, $t(193) = -4.02$, $p < .001$ and degree, $b = 1.14$, $\beta = .14$, $t(193) = 2.09$, $p < .05$ have a significant impact on attitude. In conclusion, the perceived trustworthiness of the endorser in the crypto advertisement has a significant impact on the attitude towards crypto and H3a is accepted.

Assessing the effect of source trustworthiness on buying intention

In order to test H3b, a linear regression analysis investigated the relationship between a person's perceived trustworthiness of an endorser and their buying intention towards crypto. The regression analysis with perceived trustworthiness of the endorser as the predictor and buying intention as the outcome variable showed that perceived trustworthiness did not significantly predict buying intention $b = .08$, $\beta = .06$, $t(192) = .77$, $p = .44$. The model explains less than 1% of the variance in buying intention $R^2 = .01$, $F(1, 192) = .59$, $p = .44$. There is no significant effect between a person's perceived trustworthiness of an endorser in a crypto advertisement and their buying intention towards crypto. In the model with perceived attractiveness and age and degree as predictors, neither age or degree have a significant effect on buying intention. In conclusion, the perceived trustworthiness of the endorser in the crypto advertisement has no significant impact on the buying intention towards crypto and H3b is rejected.

The effect of already owning crypto on attitude after seeing crypto advertising

To test H4a, a regression analysis to analyse moderation was done by using the PROCESS v4.0 plugin from Hayes and Montoya (2017). The different type of advertisement that was seen serves as the predictor and attitude towards crypto is the outcome variable. Age and degree are used as a covariate and already owning crypto is the moderator value. After running this analysis, the interaction effect appears to be not significant, $\beta = 2.17$, $t(177) = 1.47$, $p = .14$. The model as a whole explains 9% of the variance in attitude, $R^2 = .09$, $F(5, 171) = 3.38$, $p < .01$. Already owning crypto has no significant moderating effect on the relation between the type of crypto advertisement a person sees and their attitude towards crypto. The analysis also shows that age has a significant impact on attitude towards crypto, $\beta = -.29$, $t(177) = -3.69$, $p < .01$. Also degree has a significant impact on attitude, $\beta = 1.43$, $t(177) = 2.16$, $p < .05$. In conclusion, H4a is rejected.

The effect of already owning crypto on buying intention after seeing crypto advertising

For H4b, a similar analysis was done as the one for hypothesis 4a. The different type of advertisement that was seen serves as the predictor and buying intention is the outcome variable. Age and degree are used as a covariate and already owning crypto is the moderator value. After running this analysis, the interaction effect appears to be not significant, $\beta = 2.02$, $t(176) = 1.38$, $p = .17$. The model as a whole explains 44% of the variance in buying intention, $R^2 = .44$, $F(5, 170) = 27.08$, $p < .001$. Already owning crypto has no significant moderating effect on the relation between the type of crypto advertisement a person sees and their buying intention towards crypto. The analysis also shows that age has no significant impact on buying intention towards crypto, $\beta = .06$, $t(176) = .80$, $p = .42$. Degree also has no significant impact, $\beta = .01$, $t(176) = .02$, $p = .98$. The result is that H4b is rejected.

Discussion

Rapid change in technological innovation and financial systems can challenge existing financial systems (Whiting & Williams, 2013). With the emerging technology of crypto and the increase in advertising around it, this could lead to widespread adoption of cryptocurrencies. The review of the literature reveals a dearth of communication science studies on the topic of crypto adoption, although the usage of Bitcoin amongst citizens has received scholarly attention (e.g., Mai et al., 2018; Schaupp & Festa, 2018; Shahzad et al., 2018). This existing literature focusses mainly on a core understanding and functions of Bitcoin, the first cryptocurrency. However, individual-centred approaches to the use of Bitcoin and cryptocurrencies in general have been limited. Few studies have yet attempted to explore the predictors of individuals' intentions of adopting crypto. This research on crypto advertising with endorsers used the Source Credibility Model, because the acceptance and favourable response to an advertising message depends on the audience's perception of the expertise, trustworthiness and attractiveness of the message source (Erdogan, 1999; Ismagilova et al., 2020; Ohanian, 1990). The relationship of advertisements with endorsement and the attitude of people towards crypto was investigated.

According to previous research, corporations have realized that celebrity endorsers can enhance advertisement credibility and liking as well as brand image, brand awareness and purchase behavior (Ford, 2018). For technical products, research has found that the expertise factor of the celebrity is a significantly more important factor when matching celebrities to products (Till & Busler, 1998, 2000). Biswas et al. (2006) also state that expert endorsers are likely to have greater effects than celebrity endorsers for high technology-oriented products. However, the results of this study indicate that this is not the case for crypto. Seeing an advertisement about crypto with an expert endorser did not significantly increase attitude towards crypto or buying behavior as opposed to seeing an advertisement with a celebrity or a layperson. This could be because the technology is so new and a person's attitude towards it is very fixed, so much so that seeing advertising with endorsers does not have an impact on attitude at all.

The results of this study also indicate that the relationship between a person's attitude toward crypto and their buying intention is not significant. When splitting up the different aspects of source credibility, the perceived attractiveness of the crypto advertisement had a significant impact on the attitude towards crypto. This is in accordance with prior research that emphasized the importance of source attractiveness (Friedman and Friedman (1976); Friedman et al. (1978). However, the source attractiveness did not significantly influence the buying intention. In regards to trustworthiness, findings of McGinnies and Ward (1980) suggest that an expert source that is viewed as trustworthy can induce opinion change. Results from this study indicate that perceived trustworthiness of the crypto advertisement source has a mediating effect on the attitude towards crypto, but no significant impact on the buying intention towards crypto. This could be connected to the uncertainty around crypto, causing people to refrain from buying. Cryptocurrency adoption is still in its relative infancy, and its volatility in value is a major hurdle which extends to individuals' trust with transacting crypto (Schaupp & Festa, 2018). Research from Biswas et al. (2006) remarked that the positive effect of an expert endorser is further magnified when the consumer is highly knowledgeable about the product. However, results from this study remark that already owning crypto has no significant moderating effect on the relation between the type of endorsement and the attitude towards crypto or buying intention towards crypto.

Conclusion

This research was conducted with the aim to delve into the topic of crypto advertising in a social media context. Some findings of this study are in line with previous research but most are not, which indicates that endorsement could work differently in various settings. To conclude, the answer to the central research question; “What is the influence of celebrity crypto endorsers on the attitude of social media users regarding the adoption of crypto?” is a complex one. In general, the type of endorser that was shown in the advertisement did not significantly impact the attitude or buying intention towards crypto. The perceived attractiveness and trustworthiness of the endorser impacted the attitude towards crypto, but not the buying intention towards crypto. There was no difference between advertising with an expert endorser, a celebrity endorser or a layperson as endorser, which is contrary to the findings of Biswas et al. (2006), who argue that expert endorsers are likely to have greater effects than celebrity endorsers for high technology-oriented products. Interestingly, age and degree had significant effects on the attitude and buying intention towards crypto.

Implications

Research from Aggarwal et al. (2019) states that analysing the role of social factors which might be affecting the prices of cryptocurrencies still needs to be done. Additionally, media effects may provide opportunities to examine whether media sources or topics could impact cryptocurrency market volatility. Understanding how people start to adopt crypto could in part contribute to understanding the volatile behaviour of cryptocurrencies. Research from Cary (2021) concludes that cryptocurrencies are used in part based on their popularity. Presumably, celebrities and crypto-tastemakers play a big role in creating publicity for crypto. Research into the relationship between media and crypto is necessary to understand the influence of media on the adoption of innovative technology. Furthermore, insight into the power of media reporting can help media users to deal with information more consciously and to legitimize their own choices with regard to the use of new technology.

The scientific relevance of this study is to contribute to the understanding of the adoption of the new technology of crypto. It is one of the first in researching the new phenomenon of online crypto advertising using the existent theory of Source Credibility. The present study applied existing research methods to endorsement in advertisements for crypto. Also, much of the existing crypto research is either Chinese or American. This study aimed to investigate determinants of an individuals' behavior toward adopting cryptocurrencies in Flanders.

The practical relevance of this study is to investigate whether using endorsers in crypto advertisements can be successful. The findings that result from this comparison can be relevant for marketers in general. This study however is centred around crypto advertisements, thus the crypto industry is likely to benefit most from this research. Findings of the study could also be beneficial for consumers. Insight into the power of advertising can help consumers deal with information more consciously and legitimize their own choices with regard to the use of new technology in general.

This study also makes a contribution to the building of Bitcoin and crypto literature, which demonstrates the similarities and differences in terms of global adoption. This research can help to create insights on the impact of endorsement on the consumers buying behavior. It can assist marketers to better understand what attributes are important and matter the most to consumers. Furthermore, this study can help legislators and government organizations to better understand the citizen attitude toward Bitcoin and other cryptocurrencies and the adoption of the technology.

Limitations and future research

This study has some limitations that have to be acknowledged. Firstly, the results in this paper were found using an experimental study. Experiments themselves have limitations that have to be acknowledged, such as limited external generalizability, since real life is often more complex (Bhattacharjee, 2012). What must also be noted is that the different people that were used as endorsers in the constructed advertisements were all male. This is because there are not many well-known female crypto experts. Having female celebrities as endorsers but not female experts as endorsers would hurt the ecological validity of the study. This is why the decision was made to only use male endorsers. The collection of data for this study was done through convenience sampling, from the network of only one researcher. This might be only representing the behavior of this group instead of the whole population (Geuens & De Pelsmacker, 2017).

Also, not every respondent succeeded in correctly identifying the person they had seen in the advertisement, which is a failed manipulation check ($N = 51$). The pretest was done to prevent this, but it seems that identifying an endorser is not unambiguous. This hurts the validity of the research, but according to Aronow, Baron, and Pinson (2019), a failed manipulation check does not speak in favour of an alternative explanation because the measure is not designed to assess the viability of alternative explanations. Perhaps it is difficult to distinctly distinguish a celebrity from an expert when it comes to endorsing crypto. This could be why many respondents identified the intended crypto expert as a celebrity. In a way, as stated by Ohanian (1990), some celebrity endorsers could also be considered experts in their own fields, since they have to be the best in their discipline to become a celebrity. This can make labelling persons confusing. To correctly identify a type of endorser, you have to have background knowledge of who the person is, but also what he/she is involved in. An endorser can be paid, but can also be involved as a stakeholder or be a celebrity entrepreneur, what Hunter (2009) defines as “individuals who are known for their well-known-ness and take part both in owning or running a venture (or are portrayed as doing so)”. Both celebrity endorsers and celebrity entrepreneurs promote brands (Pringle & Binet, 2005). A person can be a cryptocurrency tastemaker who attaches their notoriety to a particular cryptocurrency (Cary, 2021), but who one considers to be a crypto tastemaker is not fixed. To conclude, even when you have knowledge about an endorser, identifying the type of endorser can still be arbitrary.

It would be valuable for future researchers to recreate this experiment and make a comparison between the different sampling groups. Also, the cross-cultural aspect of an individual's adoption behavior has also not been researched by this study. In the future, this can be explored by implementing the same research model in different cultures. Further, this particular research only discusses individual preferences to buy crypto as digital currency or as a new mean of exchange, while there could be many uses and alternatives in the future which should be explored. This study was conducted because of the rise in celebrity endorsement around crypto. Future research could investigate if crypto advertisements with endorsers have more effect on the brand's importance and salience than crypto advertisements without endorsers. Lastly, future researchers may also investigate the relationship between various other factors which were not included in this study. A specific idea for future research is to explore the effects of non-sponsored messages from celebrities about crypto on social media and how these can influence the intention of people to adopt crypto. Also, a similar design can be used to study advertisements on television instead of on social media.

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Attachments

Appendix A

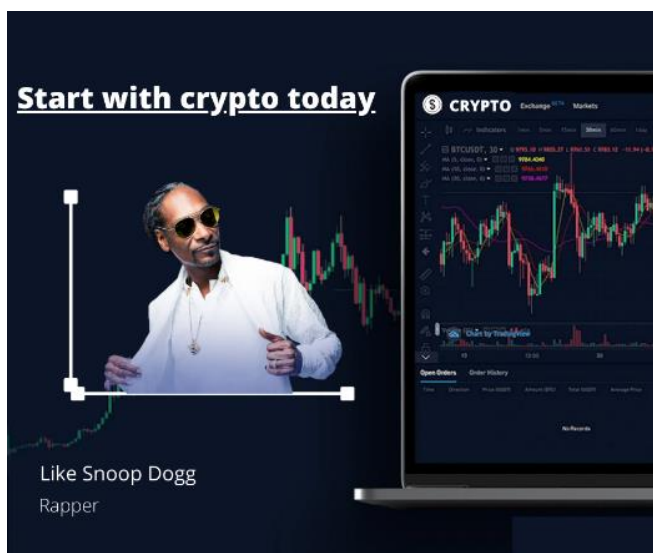
Start with crypto today.



Like Jack Dorsey
software developer, crypto
advocate and crypto investor

The advertisement features a dark background with a white line graph on the left and a laptop on the right. The laptop screen displays a 'CRYPTO Exchange Markets' interface with a candlestick chart for Bitcoin (BTC/USD) showing a price of \$19,456.00. The text 'Start with crypto today.' is at the top left, and 'Like Jack Dorsey software developer, crypto advocate and crypto investor' is at the bottom left.

Start with crypto today.



Like Snoop Dogg
Rapper

The advertisement features a dark background with a white line graph on the left and a laptop on the right. The laptop screen displays a 'CRYPTO Exchange Markets' interface with a candlestick chart for Bitcoin (BTC/USD) showing a price of \$19,456.00. The text 'Start with crypto today.' is at the top left, and 'Like Snoop Dogg Rapper' is at the bottom left.

Start with crypto today.



Like Victor Daniels
Lawyer

The advertisement features a dark background with a white line graph on the left and a laptop on the right. The laptop screen displays a 'CRYPTO Exchange Markets' interface with a candlestick chart for Bitcoin (BTC/USD) showing a price of \$19,456.00. The text 'Start with crypto today.' is at the top left, and 'Like Victor Daniels Lawyer' is at the bottom left.

Verklaring op eer

Ik, ondergetekende, aanvaard de volgende voorwaarden en bepalingen van deze verklaring:

In het kader van het uitvoeren van mijn masterproef aan de Universiteit Antwerpen (UAntwerpen) binnen de faculteit Sociale Wetenschappen, zal ik toegang krijgen tot (technische en andere) informatie van UAntwerpen en/of derde partijen, in geschreven, elektronische, mondelinge, visuele of eender welke andere vorm, met inbegrip van (maar niet beperkt tot) documenten, kennis, data, tekeningen, foto's, filmmateriaal, modellen en materialen. Deze informatie wordt gezamenlijk met informatie voortkomend uit het door mij uitgevoerde onderzoek beschouwd als 'Vertrouwelijke Informatie'.

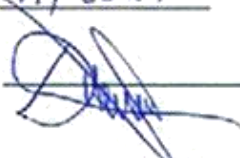
Ik zal de Vertrouwelijke Informatie uitsluitend aanwenden voor het uitvoeren van het onderzoek in kader van mijn studies binnen UAntwerpen. Ik zal:

- a) de Vertrouwelijke Informatie voor geen enkele andere doelstelling gebruiken;
- b) de Vertrouwelijke Informatie niet zonder voorafgaande schriftelijke toestemming van UAntwerpen op directe of indirecte wijze publiek maken of aan derden bekendmaken.
- c) De Vertrouwelijke Informatie noch geheel noch gedeeltelijk reproduceren.

Aangezien ik bij de creatie van de onderzoeksresultaten in het kader van mijn studies bij UAntwerpen, beroep doe op universitaire middelen en faciliteiten, draag ik hierbij de vermogensrechten van mijn onderzoek over aan Universiteit Antwerpen.

Voor de uitvoering van mijn werk verbind ik mij ertoe om alle onderzoeksdata en ideeën niet vrij te geven tenzij met uitdrukkelijke toestemming van mijn promotor(en).

Na de beëindiging van mijn masterproef zal ik alle verkregen Vertrouwelijke Informatie en kopieën daarvan, die nog in mijn bezit zouden zijn, aan UAntwerpen terugbezorgen.

Naam: Dieter Aelens
Adres: Werventstraat 43 2990 Loenhout
Geboortedatum en -plaats: 27/10/2000 Brussel
Datum: 10/11/2021
Handtekening: 

Aanvraagformulier Ethisch Advies Ethische Adviescommissie Sociale & Humane Wetenschappen

Verzoek tot advies gericht aan de Ethische Adviescommissie Sociale en Humane Wetenschappen over een voorstel tot onderzoek waaraan menselijke proefpersonen deelnemen met mogelijke ethische risico's. Op [Pintra](#) vind je een uitgebreide [leidraad](#) met alle nodige informatie over ethische vraagstukken. Gebruik deze leidraad om uw aanvraag correct in te vullen.

Dit aanvraagformulier is bestemd voor nieuwe onderzoeksprojecten. Als je advies aanvraagt voor een project waar al eerder een positief ethisch advies voor werd verleend, vul dan het beknoptere '[Formulier bij het wijzigen van de studie](#)' in.

Stuur je aanvraag voor ethisch advies naar de ethische adviescommissie via eashw@uantwerpen.be.

projectgegevens

Peoplesoft project-id (Antigoon): Dietsen.Aernouts@student.uantwerpen.be

Verklaring op eer

Ik bevestig dat ik de informatie in dit document in eer en geweten (mede) invul en ik neem hiervoor de volledige verantwoordelijkheid.

Ik begrijp dat ik verantwoordelijk ben om het onderzoek te allen tijde te monitoren, om onverwachte omstandigheden aan te geven, en om het onderzoek indien nodig stop te zetten.

Ik ben mij bewust van mijn verantwoordelijkheid om op de hoogte te zijn van de belangrijkste juridische richtlijnen inzake de bescherming van persoonlijke data en deze ook na te leven.

Ik begrijp dat ik het onderzoek niet kan starten vooraleer mijn projectvoorstel een (voorlopig) positief ethisch advies heeft ontvangen.

Datum: 27/12/2021

Promotor (naam + handtekening)

Lara Hallam



(Formele promotor van het onderzoek, naam + handtekening)

A. Algemene inlichtingen over het projectvoorstel

Titel: NL: Bekendheden achterna. Celebrity crypto-endorsers en hun rol bij de adoptie van crypto

ENG: Following the famous. Celebrity crypto endorsers and their role in the adoption of crypto

Verwachte startdatum: 1 maart 2022

Verwachte einddatum: 12 maart 2022

Uitvoerende onderzoekers Dietsen Aernouts

Promotoren Lara Hallam <https://www.uantwerpen.be/nl/personeel/lara-hallam/>

Woordvoerder Dietsen Aernouts

Typen onderzoek

Gaat het onderzoek om **Grensoverschrijdend Onderzoek** in verschillende landen.
JA - **NEEN** - NVT

Zo ja, welke zijn de andere internationale medewerkende onderzoeksgroepen:

Gaat het om een **nationale multicentrische** studie waarbij meerdere onderzoekscentra/onderzoeksgroepen betrokken zijn?

JA - **NEEN** - NVT

Zo ja, welke zijn de andere medewerkende onderzoeksgroepen (inclusief deze aan andere instellingen):

Gaat het onderzoek om **hergebruik van reeds bestaande** data verzameld door uzelf of iemand anders?
Gelieve ook de duiden of de toestemming werd bekomen van de participanten voor hergebruik, alsook de bron van de gegevens aan te geven. JA - **NEEN** - NVT

Financieringsbronnen

Hoe zal de studie gefinancierd worden? Specificeer ook het financieringsprogramma (bvb. BOF-DOCPRO, EU-ERC, FWO-postdoc, FWO-SB beurs...) en het jaartal¹

Overheid (FWO, BOF, ...): /

Eigen middelen: /

Industrie: /

Andere (toelichten aub): /

¹ Indien dit advies van toepassing is op meerdere financieringsbronnen, dient bovenstaande informatie voor elk van deze bronnen vermeld te worden.

Project-ID externe kredietverlener (indien beschikbaar, bvb. FWO-nummer): /

B. Documenten ter beoordeling van iedere studie

- Gelieve de bijlagen te voorzien van de juiste titel en documentnummer zoals hieronder weergegeven –

Verplichte bijlagen voor elke aanvraag:	Aanwezig
Document 1: Methodologie van de studie (mag in het Nederlands of het Engels)	<input checked="" type="checkbox"/>
Document 2: Inlichtingenblad voor de deelnemers (of motivering waarom geen inlichtingen van toepassing zijn, bijvoorbeeld bij hergebruik van data)	<input checked="" type="checkbox"/>
Document 3: Toestemmingsformulier voor de deelnemers (of motivering waarom geen toestemming van toepassing is, bijvoorbeeld bij hergebruik van data)	<input checked="" type="checkbox"/>
Facultatieve bijlage:	
Document 4: Een lijst van ethische commissies waaraan het onderzoek is of zal worden voorgelegd	<input type="checkbox"/>

C. Risicoanalyse:

OM DEZE RISICOANALYSE ZO CORRECT MOGELIJK TE KUNNEN INVULLEN RADEN WE AAN DEEL 1 VAN DE [leidraad](#) TE LEZEN.

	Ja	Nee	Opmerkingen:
1. Verzamelt u persoonsgegevens? Zo ja, op welke rechtsgrond (bv. algemeen belang, toestemming)?		x	
2. Als deelnemers vergoed worden voor deelname, verzamelt u hiervoor dan persoonsgegevens? (Naam, adres, telefoonnummer, e-mailadres, of enige andere vorm van persoonsgegevens om de persoon te bereiken)	x		Om deelnemers de kans op een vergoeding te geven, zal apart van de survey hun e-mailadres gevraagd worden.
3. Bestaat de beoogde populatie (ook) uit minderjarigen ? Vermeldt onder 'opmerkingen' de specifieke leeftijdscategorie.		x	
4. Bestaat de beoogde populatie (ook) uit kwetsbare groepen en personen ?		x	
5. Handelen vragen uit de studie over gevoelige onderwerpen ?		x	
6. Houdt het onderzoek het maken van foto/audio/video opnames in?		x	
7. Vereist het onderzoek het uitvoeren van langdurige of herhaalde testen op verschillende tijdstippen waarbij persoonsgegevens nodig zijn voor het koppelen van de data ?		x	
8. Bestaat het risico dat de deelnemers tijdens het onderzoek zullen worden blootgesteld aan fysieke of psychische nadelen (stress, angst, vernedering, gebruik van experimentele methodes als hypnose?)		x	
9. Misleid je de deelnemers bij de start van de studie (omdat je het exacte doel van de studie niet van bij de start kan vermelden).		x	
10. Zal u (nu of later) data delen met partners uit andere landen (i.e. doet u aan grensoverschrijdend onderzoek)?		x	
11. Zouden er zich tijdens het onderzoek ethische risico's kunnen voordoen die hierboven nog niet werden vermeld?		x	

Als je op één of meerdere van deze vragen **Ja** antwoordde, **vul dan ook onderdeel D in**.

Als je alle vragen met **Nee** beantwoordde heb je de aanvraag voltooid. Controleer nog even of je de verklaring op eer op pagina 1 volledig hebt ingevuld.

D. specifieke inlichtingen over het projectvoorstel

Voor dit onderdeel adviseren we deel 2 van de [leidraad](#) te lezen.

DEELNEMERS

1. Wie zijn de deelnemers (aantal, geslacht, leeftijd,...)? Op basis van welke criteria worden ze geselecteerd? Als de doelgroep uit **minderjarige** en/of **kwetsbare groepen en/of personen** bestaat, vermeld de nodige details.

De respondenten van dit onderzoek zijn volwassenen van 18 jaar en ouder. De vragenlijsten worden online verspreid en staan open voor iedereen binnen de leeftijdsgroep die voor het onderzoek is geselecteerd.

2. Worden de deelnemers vergoed? Zo ja, hoeveel en wat houdt deze vergoeding juist in?

De deelnemers worden vergoed door kans te maken op een filmticket. Er zal onder de respondenten één filmticket van Kinopolis worden verloot.

3. Wat zijn de mogelijke risico's voor de deelnemers?

Om kans te maken op de vergoeding wordt het e-mailadres van de deelnemers gevraagd. De e-mailadressen zullen niet gebruikt worden als data en zullen niet bijgehouden worden. Deelnemers geven dus persoonlijke informatie, maar het gevaar is minimaal.

PERSOONSGEGEVENS & andere data: VERZAMELEN, OPSLAAN & VERWERKEN

4. Op welke wijze worden **persoonsgegevens en/of andere data** van de deelnemers verzameld en verwerkt? (bijvoorbeeld door foto/audio/video-opnames). Gelieve dit aan te geven vanaf het rekruteren tot afloop van de studie, stap voor stap. Structureer uw antwoord aub; geef helder en logisch weer waar in het verzamelings- en verwerkingsproces persoonsgegevens aan bod komen. Wie zal hierbij als verwerkingsverantwoordelijke optreden?

Na afloop van de volledige vragenlijst zal naar het e-mailadres worden gevraagd. Als deelnemers kan willen maken op de vergoeding, dan kunnen ze hun e-mailadres opgeven. Het is dus niet verplicht om het e-mailadres te geven. Het e-mailadres zal veilig worden bijgehouden en voor zolang als noodzakelijk is. Het e-mailadres wordt niet aan de antwoorden van de survey worden gekoppeld.

5. Zullen data **gepseudonimiseerd** worden tijdens de studie? Hoe zal u dit doen? En wanneer zal u dit doen? Geef dit opnieuw duidelijk en stap voor stap weer.

Om onderscheid te maken tussen de respondenten zal gebruik worden gemaakt van unieke codes voor elke respondent.

6. Wie zal **data verzamelen**? Heeft (hebben) deze onderzoeker(s) reeds ervaring met de geplande methoden? (Indien niet gelieve te duiden hoe dit zal worden opgevangen). Kennen deze onderzoekers de EASHW richtlijnen? (Hebben ze de leidraad doorgenomen of zullen ze dat doen?)

Enkel de onderzoeker zelf zal de data verzamelen. Hij heeft nog geen ervaring hiermee, maar zal worden bijgestaan door zijn promotor. De onderzoeker is op de hoogte van de EASHW richtlijnen.

7. Wie zal **data verwerken**? Heeft (hebben) deze onderzoeker(s) reeds ervaring met de geplande methoden? (Indien niet gelieve te duiden hoe dit zal worden opgevangen).

Enkel de onderzoeker zelf zal de data verwerken. Hij heeft nog geen ervaring hiermee, maar zal worden bijgestaan door zijn promotor.

8. Voor niet-anonieme studies: Zullen alle medewerkers die data verzamelen en/of verwerken een vertrouwelijkheidsverklaring ondertekenen (U moet een template hiervoor in bijlage steken)?

/

informatie, TOESTEMMING EN RECHT OP STOPZETTEN DEELNAME

9. Wordt de toestemming van de deelnemers bekomen na een heldere en objectieve uiteenzetting van het doel en de risico's van het onderzoek? Indien dit niet het geval is, wat is dan de reden waarom deelnemers niet op de hoogte worden gesteld? Voeg het inlichtingenblad voor deelnemers toe.

De toestemming van de deelnemers zal worden bekomen na een heldere en objectieve uiteenzetting van het doel en de risico's van het onderzoek.

10. Maakt het onderzoek aanvankelijk gebruik van misleiding om de onderzoeksdoelstellingen te behalen? Op welke manier worden de deelnemers nadien geïnformeerd over deze misleiding? Gelieve het debriefingformulier bij te voegen bij deze aanvraag.

Het onderzoek is experimenteel en zal beginnen met een eerlijke maar mogelijk onvolledige uiteenzetting van de opzet van het experiment. Na afloop van het experiment zal er een grondige debriefing zijn voor de deelnemers om mogelijke misleiding aan te kaarten en volledig transparant te zijn.

11. Op welke manier zal er expliciete toestemming worden bekomen van de deelnemers? Indien er geen toestemming kan worden bekomen, gelieve dit te beargumenteren en aan te geven hoe dit probleem zal worden opgevangen. Voeg het toestemmingsformulier, of een beschrijving van hoe u expliciete toestemming zal bekomen toe.

Voor het begin van de vragenlijst zal er expliciete toestemming worden gevraagd van de deelnemers.

12. In geval van onderzoek bij kinderen, wordt de toestemming aan de wettelijke vertegenwoordigers gevraagd? Voeg het toestemmingsformulier voor de ouder/voogd of een beschrijving van hoe u expliciete toestemming van de ouder/voogd zal bekomen toe.

/

13. Indien er wegens hoogdringendheid geen schriftelijke toestemming kan bekomen worden, wordt zodra mogelijk de toestemming gevraagd aan de deelnemer of wettelijke vertegenwoordiger?

/

14. Worden de deelnemers gewezen op het recht de deelname aan de studie op elk moment te onderbreken?

De deelnemers worden gewezen op het recht de deelname aan de studie op elk moment te onderbreken. Op het einde van de studie, net voor het indienen, zal opnieuw worden gevraagd of ze hun antwoorden willen indienen.

Bewaren van data & beheer achteraf

[Beantwoord deze vragen voor elk type data van uw onderzoek \(ruwe data, verwerkte data, gepseudonimiseerde data\)](#)

15. Op welke manier zullen de data tijdens het verloop van de studie worden bewaard?

De data zullen exclusief op de hardware van de onderzoeker worden bijgehouden voor zolang als nodig.

16. Op welke manier en voor hoelang zal u de data na het vervolledigen van het onderzoek archiveren?

Onmiddellijk nadat er genoeg respondenten aan de studie hebben deelgenomen zal toegang tot de online survey worden gesloten. Vanaf de start van de studie zal de data worden gearchiveerd. Wanneer de toegang tot de online survey wordt gesloten, zal een deelnemer vergoed worden en hierna zullen de persoonsgegevens worden verwijderd.

17. Kunnen/zullen diverse data van uw onderzoek voor andere doeleinden gebruikt worden dan die van het beschreven onderzoeksproject (bv. hergebruik van data)? Zo ja: worden deelnemers op de hoogte gebracht van het feit dat de door hen aangeleverde data mogelijks zullen worden hergebruikt na afloop van de studie?

De persoonsdata kunnen niet voor hergebruik van onderzoek dienen en zullen ook onmiddellijk na de studie worden verwijderd.

18. Met wie zal u de data na afloop van de studie mogelijk delen? Denk hierbij aan het (her)gebruik van de data door collega onderzoekers. Als dit buitenlandse collega's zijn (i.e. grensoverschrijdend onderzoek): leg dan uit hoe u welke data zal delen. En zullen deelnemers hiervan op de hoogte gebracht worden bij aanvang van de studie?

De persoonsdata van de deelnemers zal met niemand worden gedeeld na afloop van de studie.

Inzagerecht & INFORMATIE OVER ONDERZOEKSRESULTATEN

19. Rekening houdende met de gekozen rechtsgrond voor de verwerking van de persoonsgegevens: Worden de deelnemers op de hoogte gebracht van het feit dat zij (i) inzage hebben in de over hen verzamelde persoonsgegevens en (ii) deze eventueel kunnen laten aanpassen?

De deelnemers worden op de hoogte gebracht van het feit dat zij inzage hebben in de over hen verzamelde persoonsgegevens en dat ze deze eventueel kunnen laten aanpassen.

20. Zullen de deelnemers na afloop van het onderzoek worden geïnformeerd over de resultaten van het onderzoek. Zo ja, op welke manier? Zo nee, waarom niet?

De deelnemers zullen na afloop van het onderzoek niet persoonlijk worden geïnformeerd over de resultaten van het onderzoek. Eens het onderzoek gepubliceerd zal zijn, dan kunnen de deelnemers het onderzoek lezen en de resultaten doornemen.

E. aanvullende documenten ter beoordeling van de studie na invullen luik d

- Gelieve de bijlagen te voorzien van de juiste titel en documentnummer zoals hieronder weergegeven –

Verplichte bijlagen als u luik D invulde	Aanwezig
Document 5: Alle informatie die zal worden gebruikt bij het contacteren van de deelnemers	<input checked="" type="checkbox"/>
Document 6: Alle reeds beschikbare dagboeken of vragenlijsten die aan de deelnemers worden voorgelegd	<input checked="" type="checkbox"/>

Facultatieve bijlagen als u luik D invulde (verplicht toe te voegen indien van toepassing)	Aanwezig
Document 7: Inlichtingenblad voor de ouder/voogd	<input type="checkbox"/>
Document 8: Toestemmingsformulier voor de ouder/voogd	<input type="checkbox"/>
Document 10: Debriefing formulier (in geval van aanvankelijke misleiding)	<input type="checkbox"/>
Document 11: Voorbeeld van de vertrouwelijkheidsverklaring voor alle medewerkers bij niet-anoniem onderzoek (nog niet ondertekend; enkel document dat gebruikt zal worden toevoegen)	<input type="checkbox"/>
Document 12: Contracten gesloten tussen onderzoekers en sponsors	<input type="checkbox"/>

Document 1

Methodology

In order to empirically test the effects of celebrity endorsement in crypto advertising, an experimental study is conducted. The experimental method involves the manipulation and isolation of an independent variable to create conditions (Jhangiani et al., 2015). Participants are assigned at random to one of three conditions, creating different groups experiencing different treatments of the independent variables. Subsequently, the groups are compared to measure the effect of the manipulation on the dependent variables.

A deductive experiment is used to investigate the formulated research question and associated hypotheses. Participants of the experiment give their opinion on crypto and evaluated different types of crypto advertisements via an online survey. Respondents are assigned to either group A, group B or group C at the start of the experiment. Respondents from group A are shown crypto ads with a crypto expert. Respondents in group B are shown crypto ads with a celebrity endorser and respondents in group C are shown crypto ads with a layperson who is neither an expert, nor a celebrity. The independent variable that is manipulated is the type of endorser in the ad that respondents were shown. The dependent variable is the respondents' attitude towards crypto after seeing the ad. The purpose of this comparison is to find out which endorser in a crypto advertisement has more impact on the attitude change towards crypto.

Sample

The respondents of this study will be restricted to adults from the age of 18 years and above. The minimum age for participating is set at 18 years old in order to exclude participants who are not financially independent and to have respondents who are permitted to create a crypto platform account. There are no further restrictions in order to participate in the online survey. The questionnaires of this study will be disseminated online, open to anyone within the age group selected for the study. Participants will be recruited through email and social media (i.e., Facebook Messenger and WhatsApp). Consequently, the sampling method could best be described as a combination of two non-probability sampling techniques. These are convenience- and network or snowball sampling. Convenience sampling draws a sample of that part of the population that is close to hand, readily available, or convenient (Bhattacharjee, 2012).

Procedure

Participants are invited to participate by receiving a link to the online Qualtrics experiment. All participants are welcomed, followed by a brief explanation of the purpose of the study and general information. If the participants agree to the terms, they are able to proceed with the questionnaire. The participants are informed that they could discontinue the study at any time.

This experiment has a between-subjects factorial design. At the start of the survey, participants are asked about their demographic information. They are also asked if they are active on social media and whether they have already bought crypto or not. Subsequently, the respondents are randomly assigned to one of three experimental groups and are presented with a questionnaire. The questionnaire for each group contains the exact same questions, but differs from each other only in the experimental exposure. Group A is shown an ad about crypto with a crypto expert, group B is shown an ad with a celebrity endorser and group C is shown a crypto ad with a layperson. When the advertisement is shown, respondents are able to answer questions while watching the

advertisement. This ensures that respondents have the opportunity to carefully examine the advertisement.

Data-analysis

To create the experiment, the online software of Qualtrics is used. Respondents are able to participate in the experiment via an online link to a Qualtrics experiment. The data collected from Qualtrics is exported to SPSS, in which the operationalization and analysis of variables is done. The data gathered by the online experiment is analysed with the SPSS software using descriptive and inferential statistics. The descriptive statistics are expressed in mean, frequency counts, and percentages. Inferential statistics include t-tests (independent and two-sample t-test), correlation tests, and regression tests.

Document 2 and 3

Welcome text

Dear participant,

Thank you for participating in this questionnaire. This study is about crypto advertising and is part of my master's research at the University of Antwerp. Filling in the questionnaire takes about 5 minutes.

Participation in this study is completely voluntary and anonymous. You always have the option to cancel your participation in the study. Even after you have given permission, you can stop the study at any time without consequences.

If you have any questions, you can contact me at this email address:

Dietsen.Aernouts@student.uantwerpen.be

Dietsen Aernouts

Student Master Strategic Communication

After reading the foregoing information, do you agree to voluntarily participate in this study?

Welkomsttekst

Beste deelnemer,

Bedankt om deel te nemen aan deze vragenlijst. Deze studie gaat over reclame van crypto en is onderdeel van mijn masteronderzoek aan de Universiteit Antwerpen. Het invullen van de vragenlijst duurt ongeveer 5 minuten.

Deelname aan deze studie is volledig vrijwillig en anoniem. Je hebt steeds de mogelijkheid om je deelname aan de studie stop te zetten. Zelfs nadat je toestemming hebt gegeven, kan je de studie op elk gewenst moment, zonder gevolgen stopzetten.

Indien je vragen hebt kan je contact met me opnemen via dit mailadres:

Dietsen.Aernouts@student.uantwerpen.be

Dietsen Aernouts

Student Master Strategische Communicatie

Nadat u voorgaande informatie gelezen heeft, gaat u akkoord om vrijwillig deel te nemen aan deze studie?

Document 5

Contact information

If you would like to win a Kinopolis movie ticket, please enter your email address. After a winner has been selected, the email address will not be tracked and you will not receive any unwanted emails.

Contactgegevens

Indien je kans wil maken op een filmticket van Kinopolis, gelieve dan je e-mailadres in te geven. Nadat er een winnaar is geselecteerd zal het e-mailadres niet worden bijgehouden en zal je geen ongewenste mails ontvangen.

Document 6

List of questions

Q1 toestemming - Beste deelnemer, bedankt om deel te nemen aan deze vragenlijst. Deze studie gaat over reclame van crypto en is onderdeel van mijn masteronderzoek aan de Universiteit Antwerpen. Het invullen van de vragenlijst duurt ongeveer 5 minuten. Deelname aan deze studie is volledig vrijwillig en anoniem. Je hebt steeds de mogelijkheid om je deelname aan de studie stop te zetten. Zelfs nadat je toestemming hebt gegeven, kan je de studie op elk gewenst moment, zonder gevolgen stopzetten. Indien je vragen hebt kan je contact met me opnemen via dit mailadres: Dietsen.Aernouts@student.uantwerpen.be Dietsen Aernouts Student Master Strategische Communicatie Nadat u voorgaande informatie gelezen heeft, gaat u akkoord om vrijwillig deel te nemen aan deze studie?

Q2 - Wat is uw leeftijd?

Q3 - Wat is uw geslacht?

Q4 - Wat is uw hoogst behaalde diploma?

Q5 - Ben je actief op sociale media?

Q6 - Hoe vaak zit je op sociale media?

Q7 - Ken je cryptocurrency? (Bitcoin, Ethereum, Dogecoin, ...)

Q8 - Heb je ooit al cryptocurrency gekocht of bezeten? (Dit kan Bitcoin, Ethereum, Dogecoin,... zijn)

Q10, Q11, Q13, Q14, Q16, Q17 - Wat is je indruk van de afgebeelde persoon in de advertentie? Duid dit telkens aan door elk adjectief een score te geven.

Q18 - Wat vind je van de advertentie? Duid dit telkens aan door elke stelling een score te geven.

Q19 - In hoeverre ga je akkoord met volgende stellingen in verband met cryptocurrency kopen? Duid dit telkens aan door elke stelling een score te geven.

Q20 - De persoon die je zag in de advertentie is een expert/celebrity/leek?

Q22 - Indien je kans wil maken op een filmticket van Kinopolis, gelieve dan je e-mailadres in te geven. Nadat er een winnaar is geselecteerd zal het e-mailadres niet worden bijgehouden en zal je geen ongewenste mails ontvangen.

References

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