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## Nonprofit Reputation and Bitcoin Use

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## Nonprofit Reputation and Bitcoin Use

### Abstract

In recent years, cryptocurrencies, digital assets used as mediums of exchange that use cryptography to secure the creation and exchange of the currency, have gained in popularity. One cryptocurrency in particular, Bitcoin, has received a considerable amount of attention in the media. As the general public's awareness of Bitcoin increases, one must consider the impact that aligning a nonprofit with such a currency could have. The present research uses three studies to examine the impact that advertising the nonprofits' alignment with Bitcoin has on perceived effectiveness as well as potential donors' attitudes toward investing nonprofits' assets in the currency. Results suggest that while accepting Bitcoin may enhance potential donors' perceptions of the organization, going so far as to actually invest in the cryptocurrency may be considered a poor choice. Implications for how nonprofit managers may want to handle involvement with this novel and potentially lucrative but risky currency are discussed.

### Keywords

Bitcoin, cryptocurrency, nonprofit organizations, investing, nonprofit effectiveness

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### Abstract

In recent years, cryptocurrencies, digital assets used as mediums of exchange that use cryptography to secure the creation and exchange of the currency, have gained in popularity. One cryptocurrency in particular, Bitcoin, has received a considerable amount of attention in the media. As the general public's awareness of Bitcoin increases, one must consider the impact that aligning a nonprofit with such a currency could have. The present research uses three studies to examine the impact that advertising the nonprofit's alignment with Bitcoin has on perceived effectiveness as well as potential donors' attitudes toward investing nonprofits' assets in the currency. Results suggest that while accepting Bitcoin may enhance potential donors' perceptions of the organization, going so far as to actually invest in the cryptocurrency may be considered a poor choice. Implications for how nonprofit managers may want to handle involvement with this novel and potentially lucrative but risky currency are discussed.

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### **Nonprofit Reputation and Bitcoin Use**

In recent years, cryptocurrencies, digital assets used as mediums of exchange that use cryptography to secure the creation and exchange of the currency, have gained in popularity. One cryptocurrency in particular, Bitcoin, has received a considerable amount of attention in the media. While Bitcoin is not the first nor is it the only, it is by far the most well-known cryptocurrency in the US (Bouoiyour & Selmi, 2016). As the general public's awareness of Bitcoin increases, one must consider the impact that aligning a nonprofit with such a currency could have.

On the one hand, Bitcoin's financial performance makes it a potentially lucrative investment option. The currency posted returns of 100% or more in both 2016 and 2017, and it has positive forecasts for the future—Marketwatch has published predictions of \$10,000 in 10 years, and Goldman Sachs puts it at 3,915 in the near future (Langlois, 2017; Garber, 2017). However, in Bitcoin's early years, it was associated with scandals and illicit activity (Saito, 2015). For a nonprofit, which is dependent upon a positive image and reputation to secure funds from its donor base, being associated with illicit activity could result in a loss of trust and, ultimately, closure due to lack of funding (Perry & O'Neil, 2015). Additionally, Bitcoin is known for its volatile swings and unpredictable ups and downs, sometimes losing 1/3 of its value in one week only to swing back the next (Example: July of 2017). Thus, potential donors may consider Bitcoin too risky and see it as a poor investment option for nonprofits. In addition to being perceived as ethical, nonprofits must consider their professional reputation. It is possible that a nonprofit's association with such a currency could make it viewed as being a poor manager of its funds. However, given Bitcoin's past financial performance, nonprofits could lose out on a possible financial boon if they avoid the currency for fear of donors' perceptions.

As Bitcoin is still an emerging technology, research on the subject of cryptocurrencies is still growing. As of now, Finance, Economics and Computer Science seem to be the only domains giving any attention to this topic. To our knowledge, there is no academic research on Bitcoin in the nonprofit literature. While currently absent from the nonprofit literature, it is expected that Bitcoin use will grow (Boeve & Arrieta, 2016). Therefore, an analysis to better understand donors' perceptions of nonprofits' involvement with Bitcoin is needed so that nonprofits can have data to make an informed decision if confronted with this trend.

In this research, we will evaluate potential donors' perspectives on Bitcoin involvement in two domains. First, we seek to determine how alignment with Bitcoin affects casual donors' attitudes toward the nonprofit organization. Given the finding in previous research on brand perceptions that nonprofits are perceived as more warm but less competent compared to for-profit firms and that an increase in perceived competence makes consumers more willing to support a nonprofit (Aaker, Vohs, & Mogilner 2010), it is possible that aligning itself with a high-tech currency could enhance a nonprofit's perceived effectiveness. On the other hand, given Bitcoin's reputation, it is possible that casual donors may perceive an organization as unethical or untrustworthy if the organization makes its acceptance of Bitcoin known.

Second, we will evaluate perceptions of a nonprofit organization with a percentage of its surplus funds invested in Bitcoin. Do donors who see a nonprofit's Bitcoin investment perceive that the nonprofit is being irresponsible with funds? Such an analysis can aid nonprofits in weighing the long-term and short-term benefits and consequences of donors' reactions to the cryptocurrency. This information can help nonprofits determine how to manage donations of cryptocurrency if they receive them. If evidence suggests that having a cryptocurrency gift listed among their accounts is perceived in a negative way, then nonprofits may benefit from simply

selling such gifts and immediately converting them to cash. However, if there is not a negative perception, then nonprofits may be able to keep the currency and list it among other investments.

Additionally, this analysis will aid nonprofits in making informed investment decisions regarding reputation and perceived competence with donors' funds. If it is found that donors perceive nonprofits' Bitcoin involvement as illicit or untrustworthy, then nonprofits may be advised to avoid the currency until it is more widely accepted. However, if donors have no reaction to the currency or view involvement with the currency as positive, then nonprofits may want to consider investing a small portion of their endowments in this asset without fear of public ridicule.

Given the novelty of the topic and the fact that there have been no other studies that have evaluated cryptocurrency impact or use by nonprofit organizations, we structure the following to offer a brief history of how Bitcoin came into existence followed by a description of how Bitcoin is used. From there, the philosophy and utopian ideas behind the currency's creation are presented. Next, possible donor concerns such as hacking, ethics, and volatility are explored. Then, the methods are presented along with results and, finally, practical implications for nonprofit organizations are discussed.

### **Bitcoin: History and Use**

The idea of Bitcoin was first presented in October of 2008 when a white paper titled "Bitcoin a peer-to-peer e-cash paper" was distributed on a cryptography mailing list (Nakamoto, 2008). The author of the paper was listed as Satoshi Nakamoto, but this was likely an online identity or a group of individuals. The actual identity of Satoshi Nakamoto is unknown but widely debated (Lemieux, 2013). In the paper, Nakamoto argued that the current financial

systems' dependence upon third parties could be improved by creating a system that worked peer-to-peer instead of through mediators. The paper stated:

Commerce on the Internet has come to rely almost exclusively on financial institutions serving as trusted third parties to process electronic payments. While the system works well enough for most transactions, it still suffers from the inherent weaknesses of the trust based model. Completely non-reversible transactions are not really possible, since financial institutions cannot avoid mediating disputes. The cost of mediation increases transaction costs, limiting the minimum practical transaction size and cutting off the possibility for small casual transactions, and there is a broader cost in the loss of ability to make non-reversible payments for nonreversible services. With the possibility of reversal, the need for trust spreads. Merchants must be wary of their customers, hassling them for more information than they would otherwise need. A certain percentage of fraud is accepted as unavoidable. These costs and payment uncertainties can be avoided in person by using physical currency, but no mechanism exists to make payments over a communications channel without a trusted party. What is needed is an electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party (Nakamoto, 2008, p.1).

In 2009, the first Bitcoin software was released as open-source (Velde, 2013). Essentially, Bitcoin can be used as a form of currency. While acceptance of the currency is quite limited, there are vendors that accept the currency for daily transactions. Some reputable vendors include

Overstock.com, Microsoft, and Virgin Galactic. Moreover, Bitcoin, like other currency, can be exchanged for US Dollars through an exchange (Moore and Christin, 2013).

Bitcoin allows users to send digital money from one person's digital wallet to another's. Wallets use a combination of two keys. One key is public, and this is the key that someone can give to an individual to have that person send them money. The other key is private, and only the one controlling the wallet should have access because the private key is the one that allows funds to be sent from a wallet (Antonopoulos, 2014). Figure 1 is a sample digital wallet generated by <http://bitaddress.org> and controlled by the authors. Notice the public key is on the left-hand side and is marked by "Load & Verify". This key is the one that can be shared with the public. Nonprofits could post this key on their website or within newsletters to allow donors to send funds to the nonprofit's digital wallet.

The private key is found on the right-hand side and is used to send funds from a digital wallet. Because transactions cannot be reversed, the private key should only be known by the one controlling the wallet and should never be shared. Such a feature would be important for nonprofit managers to understand, as they decide who within the organization would control the key.





Figure 1: Bitcoin Wallet. *Note: Please feel free to donate to this wallet to support more nonprofit research.*

The technical specifications of Bitcoin also have implications for transparency, an important factor in the nonprofit sector. When a transaction takes place, a group of miners act as public record keepers and post transactions, using wallet addresses and not individual's names, to a public ledger. Like credit cards, there are fees associated with making Bitcoin transactions. These fees pay the miners who maintain the public ledger (Barber, Boyen, Shi, & Uzun, 2012). Anyone can view this ledger and see the value of a specific wallet by going to <https://blockchain.info/> and typing in the address of the wallet. This is important for nonprofits to know because curious donors can check the balance of Bitcoin wallets. This features of Bitcoin that enhance transparency might also enhance the degree to which the nonprofit is seen as effective.

### **Bitcoin: A Disruptive/Utopian Ideology**

Bitcoin was created with the idea of providing financial power to individuals and removing the need for third parties (Nakamoto, 2008). This idea has also been taken to mean removing the needs (and power from) specific government (which is a 3<sup>rd</sup> party) actions. When

the government controls and regulates the monetary supply, it can print more money, which can result in inflation and sometimes hyperinflation (Petrović, Bogetić, & Vujošević; 1999).

However, with Bitcoin, there is and always will be a limited supply. Bitcoin is established such that only 21 million bitcoins will ever be in existence. Therefore, the limited supply has been argued as a way to avoid governmental induced inflation (Grinberg, 2012).

The notion of empowering individuals instead of systems, which can be easily manipulated or susceptible to corruption, is sometimes viewed as a utopian idea. For this reason, some nonprofits may align with the philosophy behind Bitcoin and the motivation to empower individuals and pull power from corrupt systems.

### **Bitcoin: Hacks, Ethics, and Perception**

At the same time that Bitcoin provides a utopian alternative, its deviation from established monetary systems and online nature opens it up to criticism. With Bitcoin being a digital currency that operates online, there is no physical representation of the coin. This means that for one to have faith in Bitcoin, one must also have faith in the safety of the currency – much like one has faith in banks to hold one's money. If investors lose faith in the system, then they will rush to withdraw funds, and the system could crash. This is not unique to Bitcoin but applies to all financial systems dependent upon trust. Even the United States banking system can, and sometimes does, experience this in the form of what is called bank runs (Diamond, & Dybvig, 1983). However, unlike the U.S. banking system, Bitcoin has no safeguards in place and no insurance (Yermack, 2013). Additionally, transactions are irreversible (Barber, Boyen, Shi & Szun, 2012); and therefore, if something happens to undermine the trust, such as a large scale hack, the system could fail. Thus, a savvy consumer must ask, "Has Bitcoin ever been hacked?"

To answer this question, one must recognize the different systems in play. First, there is Bitcoin itself. Then, there is the exchange or the place where traders go to exchange their Bitcoin for US dollars or other currency. Next, are the individuals who use bitcoins.

*Hacking.* First, Bitcoin, the system, has never been hacked. However, that does not mean that bitcoins have not been stolen. It means that hacks occur through the exchanges or individuals but (as of yet) never on a system-wide level (Moore & Christin, 2013). One way for nonprofits to avoid losing funds to hacked exchanges is by not keeping their currency on the exchanges. Instead, organizations have the option to hold their own funds through digital or paper wallets (as seen in Figure 1) and only transfer money to exchanges when the funds are being converted to US dollars and placed in a traditional bank account.

In addition, individuals who control their own wallets are also susceptible to hacking. For example, some choose to keep copies of their wallets on computers or phones. However, this means that if a device is stolen, the wallet is also stolen. Additionally, if organizations keep copies of their Bitcoin wallet keys (both public and private) in a file, then anyone with access to that file can easily transfer the currency to a different wallet and the nonprofit has no recourse. Thus, nonprofit organizations would have to make sure that there are systems in place to ensure the security of their bitcoins. In other words, like cash, Bitcoin must be handled with care.

*Volatility.* Fear of hacking is not the only reason why a donor may believe that nonprofits are poor financial stewards if they use Bitcoin. Bitcoin is known for its volatile swings in value and is considered highly speculative. Baek and Elbeck (2015) used Bitcoin and S&P 500 data to evaluate the nature of the Bitcoin market using detrended ratios and selected economic variables to study returns. They concluded that “there is strong evidence to suggest that Bitcoin volatility is internally (buyer and seller) driven leading to the conclusion that the Bitcoin market is highly

speculative at present” (p.1). Yermack (2013) also found Bitcoin’s volatility to be an issue that must be overcome if it is to become a regularly used currency. Additionally, respected investment advisors such as Warren Buffet, Albanian Central Bank, and the U.S. Securities and Exchange Commission have all warned investors to be cautious about investing in Bitcoin (Kitonyi, 2017; U.S. S.E.C., 2014).

However, despite Bitcoin’s volatility, others argue for its worth. Dyhrberg (2016) analyzed Bitcoin, gold and the US Dollar. She found that “Overall Bitcoin has a place in the financial markets and in portfolio management as it can be classified as something in between gold and the American dollar on a scale from pure medium of exchange advantages to pure store of value advantages” (p.1). Even Bill Gates argues that Bitcoin is better than cash and cannot be stopped, and Mark Zuckerberg, founder of Facebook, also invests in the currency (Shandrow, 2014; Roberts, 2017)

*Perceptions.* Bitcoin is controversial and has its fans and its naysayers. However, for a nonprofit, even if it believes Bitcoin to be a good investment, daily news headlines can diminish credibility. “The bitcoin selloff you knew was coming has arrived”, “Bitcoin Monday: from record high to down 10% before you got out of bed” (Vigna, 2017), are all examples of articles found on the Wall Street Journal’s Money Beat blog. Such articles can detract from the argument that Bitcoin could be a valid investment. Because of this, donors may associate Bitcoin with gambling and feel that nonprofits are being irresponsible with donations if they invest in the cryptocurrency.

*Negative Press and Ethical Image.* Not only must nonprofits consider the donors’ opinions regarding financial stewardship, but they must also consider their ethical image. Because Bitcoin was established to be an anonymous system (Reid & Harrigan, 2013), some

have used it to launder funds or hide assets from the IRS (Bryans, 2014; Gruber, 2013). Blind trust, a concept related to fiscal responsibility in the nonprofit sector, has been found to be a key requirement of giving (Cordery & Baskerville, 2010; Taniguchi & Marshall, 2012). Therefore, if Bitcoin is associated, in the donors' minds, with ill-gotten gain, nonprofits that are reliant upon image and trust for donations must consider the possibility of negative donor responses.

Headlines such as "Stay away from bitcoin and ethereum — they are complete garbage - *What are the real-life uses? Online gambling and money laundering*" (Arends, 2017) could also add to donors' mistrust of Bitcoin and those associated with it.

Furthermore, Bitcoin's international nature means that organizations must consider not only U.S. responses to Bitcoin but also international responses. While Bitcoin is accepted in most countries, some have outlawed the currency. Bolivia, Ecuador, Saudi Arabia, Bangladesh and Egypt are all reported to have outlawed digital currencies (CNN; Raymaekers, 2015). The reasoning for such legislation may come from governmental fear of losing monetary control, but even if the reasons are not noble, donors may view such news as a signal that the currency is untrustworthy or illegal everywhere. Therefore, if a nonprofit accepts Bitcoin, even in a country where it is legal, donors may falsely believe the organization is operating in unethical ways or even illegally.

Indeed, of the three sectors, the nonprofit is held to a higher ethical standard, and this stems from society being the primary source of support for these organizations (Evans & Kinoti, 2017). In many cases, ethical lapses are enough to drive a nonprofit under, as society withdraws its support. Such was the case with the infamous four cancer charities charged for fraud in early 2015 (Perry & O'Neil, 2015). Trust damage has been shown to indirectly impact giving owing to perceived benefits and risk (Hou, Zhang & King, 2017). If donors associated a nonprofit's

acceptance of Bitcoin with fraud or illicit activity, it could result in withholding of funds and harm the financial stability of the organization. Thus, nonprofits need to better understand donors' views on this cryptocurrency so they can make long-term decisions about financial investments.

Therefore, in the present research, we seek to evaluate how alignment with Bitcoin affects donors' attitudes toward the nonprofit organization, specifically with regard to effectiveness, trustworthiness, and warmth. We also evaluate perceptions of a nonprofit organization with a percentage of its endowment invested in Bitcoin.

### **Methods**

*Methodology.* To determine the impact that a nonprofit's acceptance of Bitcoin and use of Bitcoin as investment could have on donation solicitation responses, three studies were conducted. The first study is an online experiment using Amazon Mechanical Turk (MTurk). MTurk was used to generate a convenience sample of adults (18 years or older) living in the United States. As Dr. Marvel (2014, p. 717) eloquently explained, MTurk is:

An online labor market in which people receive small payments in return for participating in market research, Academic surveys, and related work. While our sample is nonrandom and therefore not representative of the U.S. population (or any pre-specified population), MTurk samples tend to be more demographically diverse and representative than other nonrandom samples, such as those composed of college students. Moreover, scholars have replicated key experimental findings from political science and social psychology using MTurk samples, suggesting that these samples produce valid estimates in the context of

survey experiments (Berinsky, Huber, & Lenz, 2012; Buhrmester, Kwang, & Gosling 2011).

Mturk has been used in over 15,000 published papers and many of those papers have been in top academic journals (Chandler & Shapiro, 2016). Additionally, “There is little evidence that the data collected through MTurk have poorer quality or are less reliable than those collected through traditional methods” (Cao & Jia, 2017. p. 464). Therefore, it was found to be reasonable for these experiments.

## **Study 1**

**Research Question 1: What is the effect of accepting Bitcoin on prospective donors’ perceptions of nonprofit organizations?**

*Experiment 1: Solicitation PS – Accepting Bitcoin donations or not* – Experiment one consisted of two between-subjects conditions. Condition one was a traditional fundraising letter with a postscript signed at the bottom of the letter that states: “P.S. Let me urge you to send your most generous gift today –”. For condition two, the post script was altered to say: “P.S. We also take **Bitcoin** donations. Consider donating in Bitcoin today.” Half of the participants were randomly assigned the traditional image, and the other half saw the Bitcoin image.

**Study 1: Details** - An advertisement was posted on the Mturk website with a \$0.60 reward for those who completed the survey and passed the attention checks. Participants were showed the solicitation letter with one of the randomized conditions. At the bottom of the letter was a button to continue. On a new screen, an attention check was presented. The question read “What kind of animal was the letter about?” Those who failed the attention check were redirected and not allowed to continue.

Those who passed the attention check were directed to the next question. The question presented a Likert scale from 1-10 with 1 being “Not at All” and 10 being “Very Much”. Using that Likert scale, participants were asked, “Please rate the animal shelter about which you just read on the following dimensions” and the following 10 items were listed with the 11<sup>th</sup> item acting as another attention check. (1) Warm (2) Compassionate (3) Caring (4) Loving (5) Competent (6) Trustworthy (7) Effective (8) Professional (9) knowledgeable (10) honest (11) click bubble 5.

### **Study 1 Participants, Study Procedure, and Measures**

**Study 1:** Ninety-six participants took part in the study. The median age of participants was 33.5 with a standard deviation of 14.06. Females made up 34% of respondents while males were the other 65%. Most respondents were white (79%), and African Americans (9%) made up the next largest group. The majority (57%) held a bachelor’s degree or higher and 31% had some college coursework or an associate’s degree.

**Study 1 Analytical Procedure** T-tests were used to compare the Likert scale rating of the organization by the different groups.

**Study 1 Results** The control group’s letter had a traditional Post script that asked them to give. The second group’s letter had a post script that said the organization accepted Bitcoin donations and to consider donating in Bitcoin. Otherwise, the text of the letter remained the same for both groups. Participants were asked to rate the shelter on nine aspects.

For most items, there was not a significant difference between the two groups: Warm ( $p=0.140$ ), Compassionate ( $p=0.707$ ), Caring ( $p=0.191$ ), Loving ( $p=0.6444$ ), Trustworthy ( $p=0.3613$ ), Professional ( $p=0.1127$ ), Knowledgeable ( $p=.1127$ ). However, there was a significant difference in the areas of Honest and Effective. Participants who saw the Bitcoin



letter ranked the organization as marginally more honest ( $p=.0632$ ) than those who received the traditional letter that did not mention Bitcoin. Additionally, those who received the Bitcoin letter ranked the organization as significantly more effective ( $p=.0392$ ) than those who received the traditional letter.

## Study 2

### Research Question 2: How do prospective donors perceive advice recommending that nonprofit organizations invest in Bitcoin?

**Experiment 2: Investing or not investing in Bitcoin** – Experiment two was designed to determine how people felt about advice to invest or to not invest in Bitcoin. Participants were provided the following prompt: “You are a board member for a small nonprofit organization with a yearly operational budget of \$300,000. Recently, a donor passed away and left \$300,000 to the nonprofit to establish an endowment. A Certified Financial Planner (CFP) has volunteered their time to provide an investment strategy for the nonprofit. Below is the suggested strategy. Please evaluate the strategy.”

*Figure 2: Investment Condition 1 (No Bitcoin) & Figure 3: investment Condition 2 (with Bitcoin)*

|                        |                   |     |  |
|------------------------|-------------------|-----|--|
| Short-term investments |                   |     |  |
| CD                     | 50,000.00         | 17% |  |
| Bonds                  | 15,000.00         | 5%  |  |
| Long Term Investments  |                   |     |  |
| Large Cap Stocks       | 130,000.00        | 43% |  |
| Mid Cap Stocks         | 40,000.00         | 13% |  |
| Small Cap Stocks       | 35,000.00         | 12% |  |
| Bitcoin                | 30,000.00         | 10% |  |
| <b>TOTAL</b>           | <b>300,000.00</b> |     |  |

|                        |                   |     |  |
|------------------------|-------------------|-----|--|
| Short-term investments |                   |     |  |
| CD                     | 50,000.00         | 17% |  |
| Bonds                  | 15,000.00         | 5%  |  |
| Long Term Investments  |                   |     |  |
| Large Cap Stocks       | 140,000.00        | 47% |  |
| Mid Cap Stocks         | 50,000.00         | 17% |  |
| Small Cap Stocks       | 45,000.00         | 15% |  |
| <b>TOTAL</b>           | <b>300,000.00</b> |     |  |

After evaluating the suggested investment strategy, participants were asked, “how would you rate this investment advice?” Results were reported on a Likert scale from 1-5 with 1 being poor advice, 3 being good advice, and 5 being great advice.

## **Study 2 Participants**

A total of 234 participants took part in the study (half received the financial suggestion of investing 10% in Bitcoin and the other did not). The median age of participants was 34 with a standard deviation of 11.77. Females made up 57% of respondents while males were the other 43%. The majority (76%) worked full or part-time with 24% reporting being retired (4.55%) or unemployed (19.32%). Most (59.47%) worked for a for-profit organization with government employees making up 9.47% and nonprofit employees being 7.2%. Regarding education, 61.37% reported holding a bachelor’s degree or higher while 26.51% reported that they had no college degree.

**Study 2 Analytical Procedure-** Descriptive statistics were computed, and t-tests were used to determine whether differences in the rating of advice were statistically significant.

**Study 2 Results -** Study 2 was designed to determine whether individuals thought an investment of 10% of a \$300,000 endowment was a good idea. One group was shown a suggested investment plan that did not include Bitcoin. The other group was shown a plan that included a Bitcoin investment. Both groups were told that a certified financial planner made the suggestion, and they were asked to rate the advice on a scale from 1-5.

Those participants who saw the suggestion of investing in Bitcoin rated the financial advice directionally lower (mean of 3.0 with a variance of 0.63) than did those who did not see

the suggestion of Bitcoin (Mean = 3.20, variance=0.944). These results were marginally significant with a p-value of 0.077.

### Study 3

#### **Research Question 3: Do Bitcoin investors believe that nonprofit organizations should invest in Bitcoin? Why or why not?**

*Experiment 3: How would you invest – Bitcoin investors* – Experiment 3, mimicked experiment 2. However, instead of a sample of general Mturk users, we sought to screen out and only include those who reported personal experience with Bitcoin investing. Two screening questions were presented. First, participants were asked to rate their Bitcoin knowledge using a Likert scale. Next, they were asked, "do you personally own Bitcoin or other cryptocurrencies?" Respondents answered on a dichotomous yes/no scale, and only "yes" responses were included in the sample. From there, study 2 was mimicked using the specialized population.

**Study 3 Participants** - Twenty participants were used in study 3. These individuals stated that they currently have some of their personal assets invested in Bitcoin. Males made up 70% of the sample with females consisting of the remaining 30% (Age = Min 25, Max 66, Median 32.6, SD 8.75). All participants worked: 18 worked for a for-profit organization, one worked for a government organization, and two worked for nonprofits.

**Study 3 Results** – Study 3 consisted of individuals who currently have personal investments in Bitcoin. These participants were asked if they believe nonprofits should invest in Bitcoin. Despite the fact that all participants reported being personally invested in Bitcoin, nine out of the 20 (45%) did not believe that nonprofits should invest in the cryptocurrency or were unsure. Eleven (55%) believed it to be a good investment for nonprofits. In addition to computing this

descriptive statistic, we collected qualitative feedback regarding why these participants would or would not recommend that nonprofits invest in Bitcoin.

When asked why, those who were against investing stated things such as:

- No because it isn't going anywhere the value is just inflated and propped up it will eventually devalue
- No. Bitcoin is probably a Ponzi scheme. All the coins will soon be mined anyways.
- No, it is not a stable currency, it could always collapse any day for strange reasons
- I don't have any faith in bitcoin..this seems too volatile for me to be true ...and its extremely high risk for my taste

Those who supported nonprofits' investing stated things such as:

- Yes, because of the high ROI compared to traditional bonds.
- Yes, Bitcoin has shown a great deal of growth in the last 5 years and cryptocurrencies are being used in more financial transactions every day.
- Yes, but it still new and it can be very risky and there could be a chance that you lose all your money. I would start slow and then put more money every month.
- Yes, but sparingly. Bitcoin has the potential to see great returns on investment but is an extremely volatile market.
- Sure as it is a money of the future and it is necessary to keep up.
- I think that it is an untapped market and people should try in invest in it and try something new.

## Discussion

Taken together, the results of these three studies suggest that while accepting Bitcoin may lead donors to perceive the organization as being more effective, going so far as to actually invest in the cryptocurrency may be considered a poor choice by some and even lead to ethical challenges. Specifically, the results of study 1 demonstrated that when the nonprofit organization accepted donations in Bitcoin, it was perceived to be more effective; and importantly, this increase in perceived effectiveness did not come to the detriment of perceived warmth, compassion, caring, or trustworthiness, as there was no significant difference between the organization that accepted Bitcoin and the one that did not on these measures. Although the nonprofit that advertised its ability to accept Bitcoin was perceived as being more effective, results of studies 2 and 3 suggest that some potential donors may not believe that nonprofits should actually invest in Bitcoin, though additional research is needed to support the marginally significant results obtained in the current studies.

Results of these studies have important implications not only for how nonprofit organizations should invest their assets but also for how they should market themselves in order to attract donors. Prior research in marketing has found that while for-profit organizations are perceived to be more competent but less warm, nonprofit organizations are perceived to be more warm but less competent (Aaker, Vohs, & Mogilner 2010). Furthermore, the authors of this prior research found that consumers are more willing to buy from a nonprofit when its perceived competence is enhanced via subtle cues that signal its credibility. Results from the present paper suggest that mentioning the acceptance of a high-tech currency such as Bitcoin, even in a subtle manner, may be one such way to enhance perceptions of effectiveness and, as a result, increase the likelihood of donor contributions. Importantly, results from the present studies demonstrate that Bitcoin's volatility and risk profile did not diminish its perceived competence nor did its

potential for ethical issues adversely affect either perceptions of effectiveness or warmth when the nonprofit accepted donations in Bitcoin. Such a finding may be particularly important for nonprofit organizations, as prior research has found that when organizations are associated with both high levels of warmth and competence, consumers (donors) feel admiration toward the organization, which translates to an increased desire to buy (Aaker, Vohs, & Mogilner 2010).

Study 3 of the current paper sought to evaluate how those who personally invest in Bitcoin would respond to the notion of a nonprofit investing endowed or surplus funds in the cryptocurrency. It was believed that those who invest personal funds would likely be more knowledgeable regarding possible risks and returns. Also, because Bitcoin investing is new to most people in the United States, we sought those with personal experience instead of just media-based knowledge. Therefore, this specific sample is believed to have a better understanding of Bitcoin as an investment compared with the general public. Thus, their input regarding the subject must be considered.

Interestingly, even of those who are personally invested in the currency, the acceptance of a nonprofit's investing was mixed. Nine out of 20 believed the investment to be too risky for nonprofits. Eleven of the 20 thought the risk was high but the possible reward was worth the risk. Noteworthy, both segments (those for and against a nonprofit's investing) spoke of the high risk of Bitcoin investing. This leads to the ethical question: How should nonprofits invest and what obligations do they have to later generations? (Irvin, 2007). Nonprofit boards should evaluate and create policy to address what risk level is considered responsible for their unique organization that takes into account both financial stability and growth (Chikoto-Schultz, 2016). Only then, should different investment vehicles, such as Bitcoin, be evaluated and only through the lens of a set policy. Having this set policy can help to protect the organization's funds from

being mismanaged but also protect the individual board members by showing that they were operating within set limits. A possible policy may read: up to 10% of the organization's endowment may be invested in high risk assets, such as small caps and low-grade bonds. However, only 2% may be invested in nontraditional (non stock or bond) assets that are considered high risk. An example of these nontraditional assets could be cryptocurrency.

### **Limitations and Future Research**

Although the present studies investigated perceptions of nonprofit organizations based on whether they accepted Bitcoin, future research should investigate whether accepting Bitcoin does, in fact, lead to increased donations, and specifically, whether those donations come in the form of Bitcoin. Another limitation of the present research is the timing. Bitcoin has been shown to be volatile, and it is possible that these swings could impact how someone responds to the survey. Therefore, news cycles could impact future results.

Another limitation of this research is the use of a convenience sample through MTurk. It is suggested that researchers consider performing similar experiments on different segments (including large donors, nonprofit board members, and certified financial planners) to see if results are similar among different nonprofit stakeholder segments.

Lastly, and most importantly, nonprofits must understand that the findings presented in this research are not an endorsement of cryptocurrency investment. Nor is this article intended to provide financial advice. We simply seek to determine whether nonprofits should expect a negative donor reaction if they make the financial decision to invest or be associated with Bitcoin donations.





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