

case study

Bitcoin: Legal issues and usage in the hospitality industry

By Eddie Zeng , John H. Thomas, Miranda Kitterlin-Lynch, Shao Hwa Chang and James Williams

Introduction

Technology has played a pivotal role in the production of currency and access to trade currency for services and products throughout history. Coins, government-printed bills, and bank checks have been the common means of payment for goods and services; now digital platforms, such as debit and credit cards, are gaining ground as the preferred means of purchasing services or products. As money evolves into different forms, regulations are being implemented to control the creation and usage of payment methods. Paypal or Hong Kong's Octopus smart card are popular digital platforms being used in today's commerce, but cryptocurrency is a new digital platform medium that seeks to change the rules in payment for goods and services. Cryptocurrency employs cryptography to conduct secure transactions; Bitcoin is the most known form that uses a peer-to-peer payment system to conduct secure electronic transactions. It was developed by an anonymous individual or individuals named Satoshi Nakamoto in November 2008. The digital platform has matured into a commerce hub and a way to convert Bitcoin into other currencies, such as USD, RMB, or Euro. The hospitality and tourism industry has experienced a surge of peer-to-peer transactions in a number of other forms (i.e. AirBnB, Uber); it stands to reason that the use of Bitcoin may be the next big societal trend. Therefore, the use of this peer-to-peer transaction during relative infancy is imperative for hospitality and tourism decision makers and students, so as to obtain a firm grasp of the positive and negative implications of the technology and its use.

Bitcoin provides a myriad of benefits, but it also generates business issues and some legal ramifications. The major issue is that currency is decentralized; it is not issued nor controlled by a governmental authority. It has the potential to promote beneficial business transactions, but also to allow illegal unregulated commercial activity. All operations are done between peers and shared through a public ledger in a global network for all to see in an anonymous form. Hospitality industry professionals are motivated to explore the possibilities of utilizing Bitcoin as an acceptable form of payment in their global market. However, hospitality professionals have a legal obligation to safeguard guests and patrons identity and to not participate in illegal

transactions, such as fraudulent acts and "money laundering" (use of funds obtained or transferred through unlawful activity).

Incorporating new technology to globally expand hospitality businesses is essential, so hospitality education should incorporate study as to the pros and cons for usage of Bitcoin or other cryptocurrencies. How can industry practitioners use Bitcoin without risk of involvement in fraud, security concerns and potential violations of laws? What should hospitality educators teach about Bitcoin in hospitality law, operations and computer information courses?

How Bitcoin Works

Computer users can access and download Bitcoin software online, known as a Wallet for the technology commerce. Users are provided their own encrypted key to receive Bitcoins (e.g 1BEKUGADF-brEshQb9Yr4pKPtM8jAyiNQsJ) for purchasing goods and services. Users can initiate transactions with other users by sending an encrypted key with the amount of monies to be sent to complete their transaction. Transactions must be verified through a wide-area-network (WAN) within the public ledger and announced to the network (Dai, 1998). Bitcoin transactions require that users provide encrypted keys to verify purchase agreement and signed digital signatures to conclude a transaction (Nakamoto, 2008). This is known as a block chain, in which transactions are added and traced back to the public ledger for verification. However, ownership of funds are verified through links to previous transactions (Driscoll, 2013).

In order for transactions to be verified, a block chain must be solved in order for the transactions to be added into the public ledger. The process to solve the block chain is known as Bitcoin Mining. Users utilize mining software to process complex mathematical computations that are increasingly difficult over time. It is described as unlocking a virtual padlock or finding a "needle in a haystack" (Volastro, 2014). When a user solves a block chain, a transaction fee is processed and the user is rewarded with Bitcoins. Due to the increased complexity of the mathematical computation needed to solve a block chain, this is where users can form, "mining pools." Every user will contribute their computing resources (desktop computer, laptop, servers, etc.) in an organized pool to solve a block chain. When the block chain is solved by a group, the reward is distributed to all contributors (Castle, 2014). As the complexities of such transactions are increasing, the computing capacity required for the "miners" are becoming greater,

Eddie Zeng , John H. Thomas, Miranda Kitterlin-Lynch and Shao Hwa Chang are all affiliated with Florida International University. James Williams is affiliated with the University of Tennessee.

thereby incentivizing business entities rather than individuals to be the transaction enactors.

Hospitality Applications

In theory, Bitcoin is a streamlined method to purchase services or goods between a consumer and business entity, eliminating the government currency or bank card as a middle man. The payment can even be made across international boundaries without intervention as to customs regulations. In the hospitality industry, users can purchase hotel rooms, airline and rail tickets, cruises, tours and restaurant vouchers with Bitcoin. Hospitality consumers can employ Bitcoin to procure services by providing their unique public key and set price for local and global transactions. Bitcoin provides speed and convenience to a plethora of hospitality services. Bitcoin currency conversion makes international travel more comfortable because travelers can simply convert their native currency to the currency of their foreign travel. From the perspective of the business entity, they can avoid paying high transaction fees from intermediaries such as banks and credit card companies and they can accept Bitcoin payment from anywhere in the world. Firms can reduce expenses by paying a lower transaction fee with the usage of Bitcoins. Businesses also eliminate the risk of credit card charge-backs or warranty issues, since a Bitcoin payment is final and complete when accepted, without recourse by the consumer. Many mainstream hospitality companies, as well as other businesses, such as Cheapair.com, Expedia, Golden Gate Hotel and Casino, and Latin House Grill are employing Bitcoins for local and international transactions. Refusal to accept Bitcoin may mean that business will be redirected to a competitor who does. The ability to travel globally by making payments directly from a smart phone or other computer device, without carrying currency and worrying about foreign conversions, will be very attractive to some travelers.

Legal Issues and Concerns

Bitcoin's newness to the industry creates uncertainty as to some legal issues. Due to the anonymous nature of Bitcoin and the inherent susceptibility of digital technology to hacking, there are risks of fraud, loss of digital funds or personal information and the potential for abuse by persons engaging in criminal activities. Trust is crucial within the network of Bitcoin, but users are still uncertain about security levels; concerns range from money laundering, hacking, fraud, theft, illegal purchases, and network collapse or failure. To minimize criminal activities from Bitcoin and other virtual currencies, some governmental regulatory agencies are attempting to adapt existing laws to promote secure transactions online, but many gaps still exist as to cryptocurrency legal issues.

Is Bitcoin a Currency?

Hospitality businesses exist within regulatory laws, so a threshold question is, "Is Bitcoin a currency?" The Hepburn Court drew a strong distinction between legal tender and legal currency. Legal tender can

only be issued by the national body that is authorized to do so, such as the U.S. Treasury in the United States and the Royal Canadian Mint in Canada. (Investopedia, n.d., para. 1). A creditor could not refuse payment offered in legal tender for a debt. On the other hand, other entities can establish their own currency (e.g., casino chips, coupons). However, the currency is valid only if the vendors accept it. A service provider (e.g., hotel, restaurant, or travel providers) can be selective about which currency is acceptable. In the United States, the U.S. Dollar is the only legal tender, so companies operating in the U.S. can refuse to accept Bitcoins as a source of payment (Dion, 2013). In fact, many countries, including the U.S., do not consider Bitcoin as real currency; however, they allow Bitcoin to be used as a medium of exchange. The act of exchange of services or products without legal tender is known as bartering. Yet, the Stamp Payment Act makes it illegal for an individual to create and circulate legal currency that competes with U.S. currency. Bitcoin avoids Stamp Payment Act laws because it does not emulate U.S. coins and presents no threat to the American dollar. Bitcoin presents itself more as a barter transaction (trade of goods or services) than a currency, though nowhere is it spelled out as such.

Although Bitcoin is not considered viable currency in the United States, businesses are still allowed to accept Bitcoins and take advantage of their low transaction fees; this feature makes their transaction platform extremely desirable. Bitcoin requires a mutual party agreement between the buyer and seller, so it is an acceptable means of payment when both parties agree. However, problems occur when Bitcoin owners desire to exchange their Bitcoins to legal tenders. Bitcoin is employed for transactions, and legal tender is utilized as a payment for a debt. There are also issues about whether a Bitcoin transaction is subject to sales tax, income tax on profits, and whether Bitcoin is a security as an investment vehicle.

Is Bitcoin a Security?

Bitcoin arguably falls within the broad definitions of securities under the Securities and Exchange Acts. Bitcoin can be seen as precious metals, stocks, or a multitude kind of investments that serve as an exchange between a buyer and a seller. As a security, Bitcoin represents a business investment in which the Bitcoin holder expects to gain a profit. If Bitcoin is not construed as a currency, then it is a type of placeholder in which the investor holds or trades in hopes of making a profit. The sale of a business investment device (stocks, bonds, etc.) is regulated by federal law which essentially require detailed disclosures about the value of the investment and requires the seller to be licensed. Even if the holding and trading of Bitcoins is construed not to be a securities transaction, the U.S. Department of the Treasury has clearly stated that the transaction of converting Bitcoins to legal tenders such as U.S. Dollars, this is securities trading. This applies to individuals or businesses which sell Bitcoins for a short-term profit (Dion, 2013). The Securities Act regulates the offer and sale of securi-

ties by eliciting fair trading practices and minimizing false information reporting 18 U.S.C. § 472 (2006). There was one prosecution noted about Bitcoin trading, which serves as one of the case studies being discussed in this research study. Since some persons accumulate Bitcoins in anticipation of a rise in their trading value, this supports the government position that Bitcoin is an investment device. There is no fixed value of Bitcoins; they are an unregulated market that depends solely on supply and demand to set prices. In fact, Bitcoin prices have fluctuated wildly during their history.

Avoiding Money Laundering

Peer-to-peer transactions are applicable during the Bitcoin exchange process, since this is the intersection of Bitcoin with a regulated financial institution. The financial institution that is responsible for exchanging the owners' Bitcoin to legal tenders will be compelled to comply with the statutes used to minimize money laundering, fraud, and tax evasion. Bank Secrecy Act and the Money Laundering Statutes ensure that transactions adhere to governmental guidelines. According to the Bank Secrecy Act, the financial institutions are required to submit the reports of transactions over \$10,000. Also, these institutions need to report any suspicious activities by registering with the Financial Crimes Enforcement Network (FinCEN, n.d., para. 1). Yet, the Money Laundering Statutes ask the institutions to improve their fraud detecting ability with licenses. There are three categories of licenses, the money transmission services, check cashers, and currency exchanges. The corporations or institutions that offer money transmitting service must have the licenses to prove that they are capable to avoid the suspicious financial activities.

Except for the federal money laundering law, many states have their own unique laws to regulate Bitcoin money laundering. The National Conference of Commissioners on Uniform State Laws wanted to create a cohesive set of state laws to regulate the Money Service Businesses (MSBs), so they developed the Uniform Money Services Act (UMSA) (Bryans, 2014). MSBs are not traditional banks or financial institutions; however, they still offer similar services. For that reason, the authorities can require them to have the same licenses as the financial institutions. With this restriction, the authorities can have more control over the transactions of those MSBs, hopefully preventing the money laundering of Bitcoins.

To accommodate new Internet-based transaction schemes, the UMSA broadens the definition of money to "monetary value," which includes "a medium of exchange, whether or not redeemable in money." Bitcoin has monetary value as stored value, a token e-money, or scrip. (Bryans, 2014). Since the users of cryptocurrencies remain anonymous, there are instances of Bitcoin transactions being used to shield detection of illegal transactions – drugs and weapons sales, prostitution, and exchange of ill-gotten gains for Bitcoin. This black cloud raises suspicion on legitimate business users of Bitcoin and sets a trap for

legitimate vendors who may accept "hot" Bitcoin in payment for legal goods and services.

Legal Case Study 1 (Securities and Exchange Commission vs Tredon T. Shavers and Bitcoin Savings and Trust)

Shavers is the founder and operator of the Bitcoin Savings and Trust ("BTCST"). Shavers made a lot of efforts aimed at persuading lenders to invest in Bitcoin-related investment opportunities. From November of 2011, Shavers began advertising that he was in the business of "selling Bitcoin to a group of local people" and offered investors up to 1 % interest daily. Shavers obtained at least 700,467 Bitcoin in principal investments from BTCST investors, or \$4,592,806 in U.S. dollars, based on the daily average price of Bitcoin when the BTCST investors purchased their BTCST investments. The BTCST investors who suffered net losses lost 263,104 Bitcoins in principal, which \$1,834,303 is based on the daily average price of Bitcoin when they purchased their BTCST investments, or in excess of \$23 million based on currently available Bitcoin exchange rates. The SEC asserts that Shavers defrauded the investors with unclear information of Bitcoin and the investment. That means Bitcoins do represent financial value and can be used in investment. Therefore, service providers can arrange the Bitcoins they received in more flexible ways. This result may encourage the hospital-ity businesses to accept Bitcoins as payment.

Legal Case Study 2 (United States of America vs Ross William Ulbricht, A/K/A "Dread Pirate Roberts" A/K/A "DPR" A/K/A "Silk Road")

In September 2013, the FBI raided a website that can only be accessed via the Tor network (a virtual tunnel system that provides internet anonymity for the user) known as Silk Road. This hidden website is a marketplace similar to Amazon in which anonymous individuals can purchase illegal content such as drugs and weapons. Users would make purchases using Bitcoins, adding further to the anonymous nature of operations. In a two year investigation, the FBI managed to uncover the details of the individual responsible for the website and operations. Ross William Ulbricht, under the pseudonym username, "Dread Pirate Roberts," was the alleged mastermind behind the Silk Road website (United States, 2013). The FBI has seized all financial assets in a pre-summary judgment. The amount was 144,000 Bitcoins, or \$28.5 million at the time of exchange rate and seizure (Greenberg, 2013). Criminal charges were on a federal level in which they include narcotics trafficking conspiracy, money laundering conspiracy, and computer hacking conspiracy. Currently, a guilty verdict was reached with harsh penalties being sentenced against the defendant, yet the seizure of Silk Road has left an impact on the way we do transactions and the future of Bitcoin. At the time of seizure, the value of 1 Bitcoin went from \$145.70 USD to \$109.76 USD. The next day, the value recov-

ered to \$124 USD (Hern, 2013). As of May 2014 on coindesk.com, the value has significantly increased to over \$400 USD, this demonstrates the volatile nature of Bitcoin. Many users of Silk Road who intended to make purchases prior to the seizure had their funds permanently lost (Herrman, 2013), causing frustration for many users who had active accounts as funds are deposited from the user's Bitcoin Wallet to their Silk Road account. This will pose a challenge for the hospitality industry if guests were to book reservations with Bitcoins and a company experiences a collapse in their business at any given time.

Global Impact

The usage of Bitcoin in different countries can vary. In general, it can be divided into two categories, legal and restricted. Bitcoin usage is legal as a virtual commodity rather than a currency. Much like purchasing gold, people can buy Bitcoins with cash or sell them for cash through Bitcoin ATMs around the world. Until February 2014, Bitcoin ATMs have been installed in Canada, Australia, Finland, Slovakia, Germany, UK, Switzerland, and the United States. The UK government holds a highly positive attitude. The shopping website, eBay, accepts Bitcoin transactions only in the UK. Cumbria University started to accept Bitcoin as a tuition fee payment ("Bitcoin tuition fee payment at Cumbria University", 2014).

However, the transactions of Bitcoin are not protected by any authority. The investors and users need to take their own risk. In the countries where Bitcoin is restricted, regulations are applied to prevent Bitcoin from being involved in crimes such as money laundering, terrorist activities, or other illegal transactions. Bitcoin is considered as an illegal currency and not allowed to circulate and transact through the local financial institutions in Korea, Vietnam, China and Thailand. The Chinese government deemed many types of virtual currency transactions as illegal due to global risk issues, and Bitcoin was included as an illegal way to barter (Popper, 2014). Russia is only the latest country to release a statement detailing its position on Bitcoin and decide to ban Bitcoin usage from global business transactions (Baczynska, 2014).

Future Trends

Since Bitcoin was released in 2009, Bitcoin continues to be a sought after means of purchasing online and in global markets. As more users begin to adapt Bitcoins in their business, there is a limited supply of Bitcoins to be circulated. According to Nakamoto (2008), "Once a predetermined number of coins have entered circulation, the incentive can transition entirely to transaction fees and be completely inflation free" (p. 4). Hospitality firms that accept Bitcoin payments might be exposed to hacking and volatility, which ultimately can drive some businesses away. Bitcoin might be more applicable for small businesses than with large hospitality corporations because smaller businesses may be easier to manage and track. Trust and sound financial management practices will be essential to the success of this

relationship. An employee can potentially steal large amounts of Bitcoins being stored if there are no proper practices to safeguard global funds. There remains an unpleasant uncertainty of how to safeguard, regulate, and disperse Bitcoin currency against the constant changes, internally and externally.

Hospitality Management Considerations

There are several factors to consider before hospitality organizations dare to venture out and use Bitcoin for payments. Hospitality businesses must stay abreast with local, state, and federal guidelines to ensure that their companies adhere to the legality in Bitcoin usage. One should also have strong network security practices to protect them from fraudulent charges and cyber theft. As for accounting practices, establish methods to keep track of transactions for proper financial reporting because Bitcoin transactions are developed in an encrypted form over global networks. For reservation centers and online travel agencies, establish methods to keep track of the Bitcoin exchange rate to ensure fair booking practices. Guarantee that guests or passengers can lock in their rates for their room or seats and the current Bitcoin exchange rate they are willing to pay for at the time of booking. These considerations may change over time as Bitcoin continues to grow in its global usage, but it is also imperative to consider and weigh Bitcoin benefits to a given hospitality organization.

Discussion Questions

- How does Bitcoin avoid third party transactions such as credit card companies?
- What makes Bitcoin anonymous in its transactions?
- How does a person obtain Bitcoins?
- How does a mining pool work?
- How may peer-to-peer transactions, such as Bitcoin, impact hospitality and tourism operations?
- What are the advantages and disadvantages of Bitcoin?
- What are the ethical considerations to using Bitcoin?