

The Relationship of Drug and Human Trafficking and their Facilitation Via Cryptomarkets and  
The Dark Web: A Recommendation For Cryptocurrency Regulation

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## **Abstract**

### **Purpose**

The purpose of this research is to examine the illegal practices of human trafficking via known drug trade routes and how the use of unregulated cryptocurrency via The Dark Web helps facilitate this practice.

### **Methods**

The trafficking of drugs and persons is a sundry of complex thoughts and ideas that not only lack a universal classification but are also affected by a wide range of opposing theories or models of explanation. Information for this study comes from a review of secondary sources such as peer-reviewed journals, textbooks, and government agency websites. A comprehensive review of Rational Choice Theory, and Economic Theory will be examined and used to ground recommendations.

### **Key Findings**

Key findings from this research show that trafficking is driven by a range of factors such as greed, poverty, and social imbalance. However, ease of access, anonymity, and use of cryptocurrencies is what is fueling the illegal drug trade the most today. Recommendations for a comprehensive and global approach to trafficking is discussed. Also discussed is increased punishment and a theoretical look at penalties for traffickers and consumers with recommendations to law enforcement and legislatures to facilitate further discussion. Examination is provided to further the discussion of increased global cooperation towards creation of cryptocurrency regulation.

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## **Section I: Introduction**

### **Statement of the Problem**

According to the United States Drug Enforcement Administration (DEA), the proliferation of illegal narcotics and prescription drug abuse cost billions of dollars worldwide and tens of thousands of lives each year (2017). The DEA notes that the trafficking and abuse of illicit drugs pose an unrelenting danger to U.S. citizens and present a significant challenge for law enforcement and health care systems. In 2016 alone, roughly 174 people died every single day from some type of drug overdose (DEA, 2018). That equates to 63,500 people every year; almost the same as homicides and suicides combined and the trend only continues to grow every year (DEA, 2018)

Combine the trafficking of illegal narcotics with human trafficking, and the impacts are disastrous. Considered modern-day slavery, the trafficking of people happens worldwide. The United Nations Office on Drugs & Crime (UNDOC) reports that human trafficking is an industry that produces more than \$30 billion a year, which is second only to illegal drug trafficking (2018). In the United States, human trafficking more commonly takes the form of immigrants illegally crossing the southern border, but it can happen anywhere and to anyone. All ages and genders are trafficked around the world, but the primary victims are women and young girls. Many of them are pimped out in the sex trade to "pay off" their debt owed to the traffickers who brought them into the country (Avdan, 2012). Any examination on the topic of human trafficking will show that it is a terrible crime in which its victims, often the poor and uneducated, suffer immeasurably. It is a crime that affects not only those who become enslaved by it but all members of society who are directly or indirectly impacted.

These two growing epidemics, drug and human trafficking are made worse by the increased use of Cryptomarkets and The Dark Web. These have become an intertwined criminal enterprise. With the proliferation of the internet and social media, widespread abuse has only increased (Miller, 2013). The advent of cryptocurrencies and the creation of The Dark Web has only solidified the problem. The Dark Web is a network of hidden websites that sell illegal merchandise such as drugs, weapons, and child pornography. These sites are also used in murder-for-hire and identity theft (PC, 2015). Cryptocurrencies can broadly be defined as Internet-based peer-to-peer (P2P) virtual currencies. These varying forms of payment have a component of cryptographic security (hence their name), where value is electronically transmitted between parties, without an intermediary (Barnett, 2014). By their very nature, cryptocurrencies are de-centralized because there is no single authority or principality used to manage the system (Barratt, & Aldridge, 2016). The use of Cryptocurrency makes tracking and identifying criminals even harder as cryptocurrencies are currently unregulated throughout most of the world and provide almost complete anonymity to those who use them.

### **Purpose of the Study**

This paper will examine the history, research, and legislation regarding drug and human trafficking and how The Dark Web and cryptocurrencies, in particular, play a significant role. This research is intended for law enforcement intelligence to aid in investigative tactics, social work practitioners as well as legislators by providing a more in-depth explanation of the correlation between these crimes and how they are facilitated. Recommendations for investigative methods and possible legislative actions will also be provided.

## **Methods**

Information for this study will come from a review of secondary sources such as peer-reviewed journals, textbooks, and government agency websites. A comprehensive review of several theories to include Rational Choice Theory, Labeling Theory, Control Theory, and Economic Theory will be examined and used to ground recommendations.

## **Limitations**

Cryptocurrencies are a mostly unregulated global industry. Some information is inconsistent, and the effects of its' misuse are not extensively researched. Much of the available statistical data is what law enforcement or researchers can confirm. However, it is agreed that the extent of trafficking issues goes much further than what is accurately known, and estimations are often used.

Some information used for statistical purposes by some authors was obtained through governmental offices of foreign countries. Some of these countries are accused of corruption and known to cover up specific issues (trafficking, murders, etc..) so as not to harm tourism or discourage business. These numbers, although "official," may not be entirely accurate.

## **Significance or Implications of the Study**

It is intended for this research to encourage law enforcement, regulatory, and intelligence communities to continue to study cryptocurrencies to ascertain how these systems work and the potential vulnerabilities they present. It is anticipated that this research may also contribute to the argument for the regulation of cryptocurrencies as they are currently limited in scope.

## **Section II: Literature Review**

The following literature review is divided into four parts. The first section looks at the issue of drug trafficking. Section two of the literature examines the issue of human trafficking. The third section addresses The Dark Web and Cryptomarkets and the last section addresses laws and regulations..

### **Drug Trafficking**

It is seldom disagreed upon that drug abuse, and the violence that it accompanies, present a problem to the United States and countries around the world. The proliferation of illegal narcotics and prescription drug abuse cost billions of dollars worldwide and tens of thousands of lives each year. Drug abuse covers a wide range of substances. Some are legitimate pharmaceuticals and used for medicinal purposes, but others such as "hardcore" drugs like heroin, cocaine, and crystal meth have no significant medical use (DEA, 2017). The one thing these have in common is that they can be addictive and potentially deadly.

The trafficking of illegal drugs, like all businesses, is one of both supply and demand, and Mexico cartels are one of the largest illicit drug suppliers in the world (DEA, 2017). Due to less strict governmental regulations, countries such as China are leading the way to provide cartels and any budding chemists, the building block materials to produce a bevy of illegal substances through online sales (DEA, 2017). The United Nations Office on Drugs & Crime (2012) estimates that with \$88 billion in cocaine alone in 2008, drug trafficking is one of the fastest-growing illegal enterprises that reach a global scale. The violence associated with drugs has far-reaching implications and affects individuals on many distinct levels. Drug trafficking violence is not just about selling drugs; it impacts the human rights of millions of people worldwide (Shirk, 2010). The use of the internet and social media, the influx and ease of drug

manufacturing and distribution has increased and has caused a flood in the illegal drug market (Shelly, 2012).

Drug trafficking is a crime that affects not only those who become addicted to drugs but affects the countries, towns, and communities in which the crimes take place. Illegal drugs, drug abuse, and violence often go together due to the nature of manufacturing, distribution and the often-desperate measures that addicts and dealers alike will go through to get the high they so desperately need, or to make large sums of money. The correlation between illegal drugs, violence, and victimization constitutes a significant problem in the United States and countries around the world. Illegal narcotics and prescription drug abuse are becoming more prevalent as the ease of manufacturing and obtaining the chemicals necessary to produce them become easier (DEA, 2017). With that abuse, victimization occurs on all levels, and the creation of the Dark Web has only solidified the problem.

Although considerable resources have been used to battle the drug epidemic around the world, the internet and The Dark Web have made fighting this battle increasingly difficult. Funds are being used to combat crime itself and prosecute those who perpetrated the deed on both national and international levels. In a recent article from the *Annals of Emergency Medicine* (2016), drug trafficking and the tremendous human toll it produces is regarded as a human rights violation. Trafficking has significant implications not only for the physical, but sexual, and psychological health of those affected.

Drug trafficking does not just affect the United States; it affects almost every single country on the planet (UNDOC, 2012). Trafficking implies moving drugs across continents. In the past, however, in most under-developed nations, drug trafficking took place close to home. Research data shows that intra-regional and domestic trafficking were the primary forms of

trafficking in drugs (UNDOC, 2012). This would often include persons (usually poor and uneducated) to carry drugs across open borders. Cartels would also invest millions into tunnels and semi-submersible vehicles to transport drugs across borders (DEA, 2017). Although these tactics are still being used today, purchasing drugs through The Dark Web helps to eliminate and avoid many of the hurdles drug traffickers would usually have to make. The easy and increasingly accessible online drug-market is gradually changing the market itself. Trafficking is moving from "street crime" to "virtual crime," allowing customers the ability to shop with relative anonymity in a 24-hr marketplace (Orsolini, Papanti, Corkery, & Schifano, 2017). The hidden "dark web" is facilitating this phenomenon.

Mexico cartels are one of the largest illegal drug suppliers in the world (DEA, 2017). With that in mind, Mexican drug cartels are always trying to expand their enterprise to keep up with the times. Shelley (2012) notes that with the use of the internet and social media, the influx and ease of drug manufacturing and distribution have increased and have caused a flood in the illegal drug market. Countries all over the world, but primarily in Asia and Africa, have taken advantage of their host country's lack of drug enforcement and unwillingness to combat the issue. E-commerce activities on The Dark Web and darknet e-marketplaces, represent an integral component to the proliferation of illegal narcotics (Al-Imam, & Abdulmajeed, 2017).

To counteract this, drug cartels and distribution chains have been forced to expand their criminal enterprise to The Dark Web. With established drug routes, safe houses, and infrastructure available to them, the illegal drug trade can make an almost seamless transition to implementing web sales (DEA, 2017). This has increased the violence and victimization towards those involved in the drug trade. Cartels use force to coerce individuals to participate as drug mules and to recruit others. Shirk (2010) notes that the cartels are opportunistic and will use any

means necessary to get what they want. With The Dark Web, cartels not only benefit from sales and the ease of purchasing necessary chemicals, but they are also able to acquire military-grade munitions to perpetuate their reign of terror in the home countries (Berghel, 2017).

One of the most recognized and thorough reports on trafficking is the United Nations Office on Drugs and Crime Report (UNODC). Initially published in 1998, it has received updates through the years with the latest update in 2016. The report offers a global assessment, the first of its kind, and includes information on country-specific information, trafficking patterns, surveys of victims, and reports on prosecutions. The report provides drug statistics that are difficult to find elsewhere. UNODC continuously monitors and researches illicit drug markets from around the world to gather intelligence and develop a more comprehensive understanding of their dynamics. Drug trafficking is a crucial part of this research and data is provided on a level that is not available anywhere else. The report is able to identify key hotspots for trafficking around the globe and what drugs are popular in specific regions. Since this report is provided for mainly statistical purposes, recommendations are limited.

Although extensive and detailed, there are a couple of flaws in the report. It does not include information from all 193 member countries. While comprehensive in scope, there are still many countries that are not included in the report (UNODC, 2017). Eighty percent of European members replied to the survey, while only 63% of Asia, 57% of the Americas and only 24% of African nations. Only two of the 16 Oceanic region countries are represented in the report as well (UNODC; Annex I, 2017)

The second problem that is seen in these reports is that most of the information comes from the countries themselves. The remaining information is gathered from independent and

non-governmental agencies. It is accepted that no country can be completely immune to crime, to include drug trafficking. While most of the countries that reported are considered to be trustworthy, some of the reports are provided by countries that have been accused of complicity in trafficking for economic and political gain. Countries such as Mexico, Columbia, China, and Russia all participated in this report. However, they have all been pointed out by the U.S. Drug Enforcement Administration as having been either complicit or not enforcing international drug trafficking laws (DEA, 2017).

While there are many studies about specific drugs and specific types of victims, there are just as many researchers that examine the violence caused by the illegal drug trade. Shirk (2010) explores the drug violence trends and possible causations of that violence. The author states that the Mexican government collects information on drug-related violence through various public security and intelligence agencies. However, the data is not widely accessible to the public. The author uses what official data is available along with media reports of violence to paint a more accurate picture. Shirk (2010) estimates that there were 7,724 drug-related killings in 2009 in Mexico. The author makes sure to mention that relying partly on media reports cannot be entirely reliable. There was a 25% difference in 2009 murder numbers between several newsgathering organizations (Shirk, 2010). The author does note, however, that with the prevalence of drugs and violence in Mexico and the underground networks in which the drug trade operates, there could likely be thousands of more killings that go unreported. With the information above, the author immediately noticed that drug-related violence has become remarkably elevated since 2005, with 2008 and 2009 showing sharp increases (Shirk, 2010).

Despite increased drug crackdowns by both the U.S and Mexican governments, drug-related violence has continued to rise. The author notes that Mexico's drug violence is highly

concentrated in just a few key areas of Mexico. These are considered critical zones of the production of illegal narcotics and provide the necessary terrain to aid in trafficking (Shirk, 2010). This violence is not just a problem in Mexico, however. The U.S. government has a particular interest in this as it fears “spill-over” violence across the border onto American soil. The study states that killings, in general, were relatively low through the first part of the new century. However, once taking population into account, the author estimates that between 2001 and 2007, drug-related killings represented 20% of all murders in Mexico (Shirk, 2010). Although in 2008 and 2009, the number of deaths increased dramatically, and drug-related homicides now represent a much more substantial proportion of intentional killings.

### **Human Trafficking**

Although there is a great deal of research about human trafficking. Many people are enticed into trafficking through false promises of money and freedom. However, those individuals are forced to work fields and tending to drug crops such as marijuana and poppy fields. Others are forced to transport drugs, whether through brute force, intimidation, or as an agreement for human trafficking across borders. Users of these drugs are victimized as well. Some are pimped out to support their habit. Victims will comply out of fear to avoid the dire physical effects of withdrawal they would suffer for refusing (Roberson, 2017). Others have families threatened if they do not cooperate (Richmond, 2017).

The Trafficking Victims Protection Act of 2000 (TVPA) defines human trafficking as "the recruitment, harboring, transportation, provision, or obtaining of a person for either labor or services, or a commercial sex act by force, fraud, or coercion" (H.R.3244, 2000). This federal statute has been amended three times with the last coming in 2008. It has now been incorporated

in every state's law. However, as with most criminal enterprises, precise empirical data as to the present scope of human and sex trafficking is exceptionally tricky to obtain or quantify (Roberson, 2017).

In *United States v. Baston* (2017), after the conviction of international sex trafficking charges, the defendant appealed, arguing the TVPA was a constitutional overreach (*United States v. Baston*, 2016). Baston argued that since some of his victims did not reside in the United States, he should not be forced to pay restitution to someone who lived in a different country. The basis of the argument is that because the crime occurred out of the courts' jurisdiction, the defendant was not obligated to pay. The district court sided with Baston's and declared that extraterritorial conduct exceeds Congressional power under Article I of the Constitution, and violates the Due Process Clause of the Fifth Amendment. However, the Eleventh Circuit Court overturned the district court decision citing the law is not in violation do to the Foreign Commerce Clause (Richmond, 2017). This led to an amendment of the TVPA to clarify and expand jurisdictional reach (Richmond, 2017).

According to the United Nations Office on Drugs and Crime (UNODC, 2016), both traffickers and victims often come from the same place. They speak the same language and usually are from the same ethnic background. Such commonalities aid traffickers to generate trust and carry out the trafficking crime. Traditionally, human trafficking is considered an offense primarily involving the sexual exploitation of women and children by organized criminal groups. However, recently, more men are being trafficked for labor, sex, to be used as combatants in foreign armies and even organ removal (UNODC, 2016). Illegal drugs, drug abuse, and violence often go together. This is due to the nature of manufacturing, distribution and the often-desperate measures that addicts and dealers alike will go through to get the high

they so desperately need, or to make large sums of money. The United States has maintained itself as a worldwide leader in combatting drug and human trafficking by enacting some of the strictest and most punishing laws (Atak & Simeon, 2014). However, as the statutes adapt, so do traffickers.

One report that encompasses the most impact and furthest reach of human trafficking is the United Nations Office on Drugs and Crime (UNODC) *Report on Global Human Trafficking*. Initially published in 2009, it has received updates through the years with the latest update in 2016. The report offers a global assessment, the first of its kind, and includes information on country-specific information, trafficking patterns, surveys of victims, and reports on prosecutions of human trafficking. In the report, it states that there were more than 500 different human trafficking flows between countries and within borders between 2012-2014 (UNODC, 2016). The Global Human Trafficking Report (2016) describes how, over the last decade, the number of children and men that are victims of trafficking has increased to 28 percent (children) and 21 percent (men). However, the majority still being women. The percentage of domestic trafficking cases-within a nation's borders-has increased to 42 percent globally.

Other studies and research have focused on the legalities of human trafficking, specifically, how international law intersects with local and territorial legislation, refugee law, and human rights laws. One such report from Atak and Simeon (2014) looks at the effects of these laws on foreign nationals that are entrapped in human trafficking and seeking international protection. The report also analyses the difficulties in prosecuting traffickers due to the varying requirements from country to country. When the crime of trafficking takes place across multiple countries, governments are faced with additional challenges. These include securing international cooperation, as well as jurisdiction, to effectively investigate and prosecute trafficking crimes”

(TIPR, 2017). The report estimates that with-profits close to 32 billion dollars, and with almost 21 million victims (5.5 million, which are children), human trafficking is one of the fastest-growing illegal enterprises that reach a global scale (2014).

The leading body that is combatting human trafficking and trying to enact global policy to fight the epidemic is the United Nations (UN). To monitor trafficking patterns and to aid partner countries in opposing the influx of human trafficking, the modern anti-trafficking movement began with the adoption of the Palermo Protocol in 2000 by the United Nations (Atak & Simeon, 2014). Although many countries, including the United States, had already started and even enacted legislation regarding human trafficking, this was one of the first international pieces of legislation (Stolz, 2010). The UN is combatting this on two main fronts, international criminal law, and international refugee law, and the creation of the Palermo Protocol was the first global step in battling this human rights issue (Atak & Simeon, 2014). The basis of the report is derived from analytical interpretations of detected cases of trafficking in persons around the world. It is obtained from a dedicated questionnaire that is distributed to Governments and their respective agencies, along with the collection of official information available to the public (UNDOC, 2016).

The report uses an analytical interpretation of cases of trafficking in persons around the world. Information gathered is typically sourced from authorities who have training and expertise fighting trafficking in persons, resources to identify trafficking offenses, and the ability to aid victims in their territory (UNDOC Annex 1, 2016) This information is resourced from law enforcement institutions, judiciary authorities or organizations assisting victims. In limited cases, data from international non-profit organizations and non-governmental agencies that detect, support, or repatriate victims of trafficking is collected. The UN then uses this information and

its data analysis to develop patterns and flows in trafficking on national, regional, and international scales. The resulting data is then used to create profiles of both traffickers and victims and is instrumental in creating policies and guiding law enforcement agencies in their fight against trafficking (UNDOC, 2016). Although this information is sourced primarily to combat human trafficking, it does help governments combat other forms of trafficking because many of the same criminal resources and routes are used (Shelley, 2014). Another element of this report is that with such a global perspective on the human trafficking issue, it helps to identify needs of trafficked victims and assists governments in creating programs to help those individuals because human trafficking is not only a criminal problem, it is a human rights issue (Atak & Simeon, 2014).

Atak and Simeon (2014) argue that human trafficking needs to be addressed on a more human rights scale rather than in criminal prosecution. They argue that by addressing the human rights needs around the world, the need for human trafficking will diminish due to less demand. The authors note that there are primarily two types of classes in human trafficking, “those victims of trafficking who are seeking asylum and the perpetrators of human trafficking excluded from refugee protection for committing what can constitute, under the international criminal law, a crime against humanity” (Atak & Simeon, 2014, p. 1022). They also show limited evidence that the prosecutions are not as effective as hoped, and their design leaves room for abuses. Of fifty cases of human trafficking in Canada in 2013, only one was successfully prosecuted and secured a conviction under Canada Law.

The sentiment is echoed in other research as well. Shelley (2012), examines the process of drug smuggling and the correlation to human trafficking. Drug trafficking is not just related to the business of drugs. It is linked to many other forms of trafficking to include sex/human

trafficking, labor trafficking in agriculture, begging, and various types of hard physical labor. Smuggled individuals will often pay for their movement to their destination by being drug couriers, either by ingesting or transporting drugs (Shelley, 2012). The author notes that often, the crime of drug smuggling supersedes the act of human trafficking. This is because drug abuse and the violence associated with the smuggling overtake public policy since it directly affects more citizens. The author notes that the process of illegal entry or importation of contraband into the United States is a much easier crime to prove than human trafficking. This method, however, results in potential trafficking victims and asylum seekers being treated as migrants and criminals (Shelley, 2012). This article examines how drugs are used to recruit trafficking victims and retain them to achieve the maximum amount of victimization and more profits for the drug cartels.

Shelley (2012) notes that with the use of the internet and social media, the influx and ease of drug manufacturing and distribution have increased and have caused a flood in the illegal drug market. To counteract this, drug cartels and distribution chains have been forced to expand their criminal enterprise to include human trafficking. With established drug routes, safe houses, and infrastructure available to them, the illegal drug trade can make an almost seamless transition to smuggling humans. The author notes that although prisons in the United States are filled with criminals convicted of drug and smuggling related crimes, there are several hundred cases throughout the United States regarding persons condemned for participating in human smuggling and trafficking activities (Shelley, 2012). Shelley also notes some of the impacts on the United States. It is estimated that between 100,000 to 300,000 international and domestic teenagers are trafficked in the United States (TIPR, 2017). These individuals are primarily female and forced into the sex trade. Not only does this present a human rights issue, but it also creates a public

health issue. Human trafficking aids the increasing spread of STD's such as Chlamydia, HSV-2, and HIV/AIDS. This, in turn, perpetuates the STD public health issues that the United States is already fighting.

### **The Dark Web and Cryptomarkets**

The Dark Web is a global network, much like the networks used by citizens and companies every day. However, these hidden websites sell illegal merchandise such as drugs, weapons, and child pornography. These sites are also used in murder-for-hire and identity theft (PC, 2015). Dark websites are accessed by unique browsers that hide the identity of their users. However; these networks are only accessible by using specific software configurations, or non-standard communication protocols and ports (Spalevic, & Ilic, 2017).

This Dark Web functions very differently than the Internet that is used daily (surface web) by much of society (private & commercial). The everyday public internet includes all sites and portals, which are indexed by a general web browser (i.e., Internet Explorer, Firefox, Google, etc.). All of the public places on the internet are connected via incoming and outgoing links from these portals. Indexing robots then scan these pages and use links that lead to and from other websites (PC, 2015). The Dark Web avoids this indexing, and with the software used, it makes it extremely difficult for law enforcement to track the operators of the sites (Al-Imam, & Abulmajeed, 2017).

As mentioned throughout this paper, drug trafficking and the ensuing waves of crime and destruction that follow are only being aided by the proliferation of the internet, primarily The Dark Web. Drug trafficking, even though the web, often causes the victimization of the drug user as well. Because drugs and the chemicals to produce them have become easier to acquire through

The Dark Web, drug abuse and victimization have only increased over time (Spalevic & Ilic, 2017). Many users are pimped out to support their habit. Others are robbed and beaten for their money when they show up for a drug deal. Victimization has been linked to high-risk behavior, such as increased substance use and delinquency (Begle, et al., 2011). Families are left behind because their loved one overdosed on these dangerous drugs (Koo, Chitwood & Sanchez, 2008). Therefore, drug manufacturing, distribution, selling, and using leaves a trail of victims in its path.

Human trafficking is also a profitable business on The Dark Web. Over a two-year time frame, traffickers spent about \$250 million to post over 60 million advertisements, anywhere between 30,000 and 40,000 Dark-Web pages, according to United Nations research (UNDOC, 2016). A significant risk of large-scale criminal activities exists because of the use of cryptocurrencies. The lack of universal regulations, breaches in critical industry-based checks and balances to prevent money laundering, a non-existent administration, and anonymous transactions, open the door for criminal activity on a global scale (Barnett, 2016).

Barratt and Aldridge (2016) take an in-depth look at drug crypto markets and how they can operate within The Dark Web. The article describes how crypto markets work and provides a thorough explanation of terms and definitions for dark web vernacular. The authors do well to discuss the innovations of The Dark Web and the resulting ethical issues, and how it will allow drug policy scholars never before seen opportunities to track and analyze the supply side of the drug trafficking, as well as the chance to see how the drugs flow into the broader supply chain (Barratt & Aldridge, 2016). This analysis will assist not only policymakers but potentially law enforcement in combatting drug trafficking.

One particular example that is discussed is the Silk Road cryptomarket. Barratt & Aldridge (2016). look at the innovation that was used for this specific drug trafficking site. It combined technologies to hide internet user activities (i.e., Tor) and also allowed individuals to make purchases with cryptocurrencies such as Bitcoin. The marketplace prospered until seized by the FBI in October 2013. The authors continue to discuss that despite the infiltration of law enforcement into some regions of The Dark Web, it has not diminished the number of opportunities to purchase illicit drugs. The article also notes how some users were able to "legally" acquire prescription medications by contacting actual doctors who accepted crypto payments in return for prescriptions. The authors identify that for a novice with limited experience, this process of buying narcotics on The Dark Web may seem daunting. As research in cryptomarkets expands, researchers are finding that for many users, cryptomarket drug trading is more effective and preferred rather than in-person selling. Barratt and Aldridge compare the process of purchasing items with relative ease on sites like Amazon and eBay. The authors also explain how a crypto market acts as a third party between a supplier and the person purchasing. Cryptomarkets will even hold funds in escrow to protect both parties. Lastly, Barratt and Aldridge explain that The Dark Web is more massive than the surface web. The authors close with an explanation of the different levels of the internet and the further differing levels of The Dark Web.

The impact Silk Road had on The Dark Web, and law enforcement is worth further study. Van Hout and Bingham (2014), take an in-depth look at the Silk Road crypto marketplace and how it affected the sale and consumption of illegal and prescription narcotics. The authors detail how members who chose to conduct business on Silk Road are attracted to the site for various reasons. Users can protect their identity by using screen pseudonyms. There is a variety of

product listings with a large selection of vendors whose customers leave reviews, much like other market places on the surface web. The anonymity provided reduced personal risks, stealthy product delivery, and the opportunity to develop personal connections with vendors using stealth modes of contact and forum activity (Van Hout & Bingham, 2014).

Van Hout and Bingham (2014) give an in-depth explanation of the Silk Road site on The Dark Web and how it operated. The growing use of cryptocurrencies and even fees and commissions are discussed. They also examine consumer purchasing motives and how some of the decisions to access Silk Road appear grounded in what the authors call 'responsible' drug consumerism, in which users present themselves as drug connoisseurs (2014). It is noted that just on the Silk Road site alone, the authors were able to view 13,426 listings originating from all over the world and another 17,000 listings that did not indicate where the drugs originated.

Van Hout and Bingham (2014) further explain the methods used for the study and state that a comprehensive measurement analysis, along with site monitoring, was used to monitor Silk Road activities. Their study was undertaken as part of a longitudinal monitoring exercise involving three phases that consisted of a holistic single case study that involved a Silk Road member, an integrated survey of monitoring forum activity, and included online interviews of a variety of Silk Road customers. Finally, the authors sought an interview study of vendors and their experiences of retailing on the site (Van Hout & Bingham, 2014). The study also adhered to best practice protocols for online research.

While the methods used were reliable, the results are less so. The authors were only able to elicit answers from 10 individuals who only represent .03% of the available listings expressed earlier in the study. Although any insight into this type of operation can provide valuable

information, the low number of respondents makes it challenging to quantify actual numbers. Understandably, many customers and vendors did not want to participate. After all, they are accustomed to the anonymity of The Dark Web. However, the questions used in this study were open-ended and did not ask anything specific, nor did it include usernames or any other identifiable information. This level of participation makes it difficult for a scholar to use the information that is acquired for any substantial research.

Mackey and Kalyanam, (2017) take an analytical look at the role of the Internet and social media on fentanyl illegal marketing and direct-to-consumer access. The authors discuss what they call a “counterfeit fentanyl crisis.” Mackey and Kalyanam (2017) describe how counterfeit forms of frequently abused prescription drugs that are laced with fentanyl, are being sold online. The fake prescription drugs are sold on a global scale, which is contributing to an increase in overdose and death in countries across the globe to include the United States and Canada (Mackey and Kalyanam, 2017).

## **Laws & Regulations**

The correlation between illegal drugs, violence, and victimization constitutes a significant problem in the United States and countries around the world. Illegal narcotics and prescription drug abuse are becoming more prevalent as the ease of manufacturing and obtaining the chemicals necessary to produce them become easier (DEA, 2017). Illegal drug manufacturers continuously change formulas to sidestep narcotics laws and have been doing so for quite some time. Legislation to combat this has been on the books since the 1970s. In 1970, Congress passed the Comprehensive Drug Abuse Prevention and Control Act (“CSA”). The CSA replaced over fifty different pieces of legislation that controlled drug enforcement, establishing a single control

system for narcotic and psychotropic drugs in the United States. Additionally, the CSA organized controlled substances into five categories, with Schedule 1 being drugs that are dangerous and have no accepted medical necessity (i.e., cocaine, heroin, etc.). These classifications are centered on their danger level, the potential for addiction and abuse, and if the drug possesses a legitimate need for medicinal purposes (Brown, 2015).

Congress then passed the Comprehensive Crime Control Act (CCCA) in 1984. This gave the Attorney General the authority to schedule uncontrolled substances to Schedule I of the CSA on an emergency basis. The main goal of the CCCA was to avoid an “imminent hazard to public safety. However, clandestine chemists in California continued to manufacture legal drugs by merely altering the chemical composition of illegal drugs, thus making them legal once again. This exposed a significant flaw in the CCCA because the United States government only banned drugs according to their precise molecular structure. This meant that manufacturers could tweak one element of the molecular structure, which said the drug would no longer “fit the definition of the scheduled illegal drug” (Brown, 2015). Then, in 1986, Congress enacted the Federal Controlled Substances Analogue Enforcement Act (“CSAEA”). This legislation is designed to assist law enforcement officials and prosecutors with the necessary tools to contend with those who seek to alter illegal drugs to try to make them legal (Brown, 2015). Unfortunately, the CSAEA has failed to curb the attempts to modify illegal narcotics to make them legal chemically. In 2010, President Obama signed the Fair Sentencing Act (FSA) of 2010 into law. This was to lighten traditionally harsh federal punishments for low-level drug possession offenses. Instead, the focus was moved to drug distribution and trafficking. The FSA eliminated the mandatory minimum sentence for simple possession of crack cocaine in federal cases and increased penalties for major drug traffickers (Roberson, 2017). With the proliferation of the

internet and social media, the widespread abuse and sale of the chemicals necessary to make the changes have only increased (Miller, 2013). Although the battlefield has changed somewhat, the war between drug manufacturers and the law continues in much the same way.

As a member of the United Nations Security Council, the United States produces an annual report on human Trafficking that it uses to guide U.S. policy as well as information sharing with our international partners. The Trafficking in Persons Report (TIPR) analyses information gathered from the United Nations as well as U.S. intelligence information and reports from INTERPOL to assess trafficking patterns and assist partner countries in combatting the flow of people. In 2000, responding to the national and international recognition of trafficking in persons as criminal behavior, President Clinton signed the Trafficking Victims Protection Act of 2000 (TVPA) into law (Stolz, 2010). Although international bodies have made progress and continue to work to implement legislation, millions of victims continue to be exploited and forced into labor and sex trafficking (TIPR, 2017).

The TIPR issues reports and statistics on a variety of human trafficking issues. It addresses the trafficking of individuals for sex, labor, organ donation, and child labor, to name a few. The TIPR also identifies countries that use child soldiers as part of the Child Soldier Prevention Act, signed into law by President George W. Bush in 2008. The bill is aimed at preventing arms trade with countries suspected of using child soldiers who are often forced into war (TIPR, 2017). The information gathered further assists the United States and partner countries in developing trafficking and immigration laws. Results show that security studies cause states to tighten visa policies in response to trafficking threats.

Similarly, destination states of trafficking impose tighter controls (Avdan, 2012). The resulting information leads to a tiered ranking of countries regarding human trafficking. There are four tiers with tier 1, the highest-ranking. The TIPR notes, however, that a tier 1 ranking does not confirm a nation does not have a human trafficking problem. Instead, a Tier 1 ranking shows that a state has acknowledged the existence of human trafficking and has made efforts to address the issue (TIPR 2017). Lower rankings are an indication that the country is not doing enough or, in some cases, is not doing anything at all to combat the problem.

The report identifies countries that are working to combat human trafficking and spotlights those who do not. In the report, the world is broken down into regions, and each nation is listed. Among the information contained are the number of prosecuted trafficking cases and the number of convictions recorded by the country. The TIPR then goes on to list a detailed report on each country to include any legislation or significant gains made to tackle the issue. Conversely, the report identifies areas that need improvement to help steer policymaking to stop human trafficking. By creating and maintaining the report every year, the United States is stepping up to the front line on the war against human trafficking.

Some courts have used the drug dependence of trafficking victims to their advantage in sentencing. Courts are finding that exploiting the vulnerability of a drug-dependent victim, can merit a sentencing enhancement. In *United States v. Guidry* (2009), the Seventh Circuit Court of Appeals agreed with the trial court's decision to utilize a sentencing enhancement as a partial result, of expert testimony by a physician who is certified in psychiatry and addiction medicine. The physician testified that the exceedingly addictive properties of heroin create a powerful fear of withdrawal that can lead addicts to do things they usually would not do in an un-addicted mindset. This fear causes them to do whatever it takes to prevent withdrawals (Roberson, 2017).

## **Conclusion**

The literature found for this paper represents just a small fraction of the available research . Opinions and theories vary widely on these subjects as is demonstrated in this review. However, more research needs to be done on the issues of drug and human trafficking as their effects impact all walks of life on a global scale. Further research may help to clarify issues and narrow down appropriate ways to combat the issue. Being a fairly new industry, cryptocurrencies and cryptomarkets could benefit from further research as well.

### **Section III: Theoretical Review**

The following section provides a review of two theories, rational choice and economic theory, and applies it to the crime of drug and human trafficking.

#### **Rational Choice Theory**

Rational choice theory is founded on the ultimate tenets of classical criminology, which embrace the thought that individuals freely elect their behavior based on the motivation to avoid pain in the pursuit of pleasure (Shon, Chong Ho & Barton-Bellessa, 2015). The first appearance of rational choice theory was brought forth by Cesare Beccaria during the late 18th century (Loughran, Paternoster, Chalfin & Wilson, 2016) Rational choice theory has been examined further by Freud and Adler in the 1930s and Becker in 1968 (Loughran, Paternoster, Chalfin & Wilson, 2016). Throughout the years, the theory has been extrapolated to include sub-theories regarding deterrence of crime and situational crime prevention along with routine activity theory (Loughran, Paternoster, Chalfin & Wilson, 2016). All manners of corruption have been applied to the rational choice perspective to include drug use and white-collar crime. Shon, Chong Ho & Barton-Bellessa note that additionally, Rational Choice Theory may consist of biological factors

as well. Neuropsychological literature indicates that there are neurobiological mechanisms that affect our “rational choices.”

### **Application of Rational Choice Theory**

Individuals gauge their choice of actions based on each option's capacity to yield advantage, pleasure, and happiness. Rational choice provides an in-depth perspective on why offenders decide to participate in specific criminal activities; people choose to engage in crime for fundamental reasons (Shon, Chong Ho and Barton-Bellessa, 2015). Essentially, crimes that are rewarding, easy, satisfying, and fun stimulate the pleasure-seeking aspects of an individual. The central foundation of this theory, however, is that the majority of society is filled with people who are rational beings who fear punishment and can be controlled by that fear.

Rational choice theory hypothesizes that criminals are sensible individuals who make decisions to carry out crime based on the costs and benefits involved in the commitment of crime (Liu, 2017). Deterministic by nature, the practice of criminal decision making is founded on free will, "which necessitates observation of opportunities, circumstances, and situations that could affect the successful perpetration of the planned crime," (Lanier & Henry, 2004). Brown, Esbensen, and Geis, (2008) noted that rational decision making as it regards to crime, may also involve choices made by victims that can determine the kind of crime, the modus operandi, and when and where to perpetrate the crime and what to do afterward (Liu, 2017). This indicates that criminals may first observe potential victims to determine vulnerabilities. The victims' location, times they are most vulnerable, and the victims themselves, may provide the appropriate avenue to safeguard their criminal activities from criminal justice authorities and other capable guardians (Liu, 2017). Some rational theorists, however, argue that criminals vary the decisions they make

based upon the motives, perceptions, skills, and abilities to read opportunities as situations guide their decisions making processes, (Lanier & Henry 2004). Liu (2017) describes three variables that define rational decision making. Free will, cost, and benefits help to build an integrated framework to explain the human trafficking of women and girls for involuntary prostitution. One way human traffickers choose their victims is based on the perceived gains from the crime and susceptibility of prospective victims. Nonetheless, there must be another theoretical explanation on how to make clear to prospective victim's, their potential vulnerabilities.

The demand for sex workers can be grouped into three categories: users or purchasers of sex, profiteers from promoting sex, and socio-cultural attitudes towards sex (Hughes 2004). Users or purchasers refer to persons who pay prostitutes to render a sexual service. Brothel owners and pimps comprise those who profit from selling sex. Academics and those in the media who report and write about prostitutes, make-up part of the varying socio-cultural attitudes towards sex (Hughes, 2004). The depiction by some in the press of purchasing, owning prostitutes, and depicting sex services may contribute to the human trafficking of young women and girls for involuntary prostitution (Piquero & Rorie, 2015). Those who pay for sex, socio-economic attitudes linked with prostitution, and the violence perpetrated towards women compose three factors that Piquero and Rorie (2015) have recognized to explain the growing demand for prostitutes possibly. It can be inferred from these factors that a particular category of prostitution consumers do not necessarily separate caged prostitutes from voluntary prostitutes. The driving factor appears to be receiving sexual services from sex workers (Hughes, 2004).

## **Economic Theory**

Economic theory is sometimes used to explain crimes, actions, and behaviors that calculate the gains and benefits accrued from participating in a particular task because of its relationship to Rational Choice Theory. The economic theory of crime implies that people make criminal decisions in much the same way as they do in making non-criminal decisions (Witt & Witte 2000). Introduced in 1968 by Nobel Laureate Gary Becker, it suggests that potential criminals are financially motivated and respond considerably to the deterring incentives by the criminal justice system (Moeller, 2018). Criminals tend to commit crimes when the expected gains from illegal activities outweigh the gains expected from legal work (Mandisa & Lanier, 2012). The fundamental belief of economic theory is that criminals weigh cost vs. benefit. Individuals commit crimes because they have perceived the benefits of the crime to outweigh the possibility of being caught and paying the penalty (Eagle & Betters, 2007).

## **Application of Economic Theory**

Pratt (2008) notes that persons will apply legal or illegal measures depending on the expected value from those acts. Trafficking endeavors are swayed by the actuality that the expected gains from crime supersede the relative earnings from legal work (Pratt, 2008). This theory also identifies punishment, or lack-there-of, as a component of human trafficking. If the sentence is minimal, then there is less concern for offenders, and human trafficking increases (Liu, 2017)). This ideology is also expressed by McKay (2006). The extent of crime can often be determined by the probability of being apprehended and prosecuted, as well as the expected outcome of the sentencing. McCray (2006) notes that certainty is more important than severity.

Mandisa and Lanier (2012) expand on McCray's thoughts and note that criminals are economists of the street. Offenders look for opportunities to maximize their decision-making by calculating the pros and cons and financial benefit or loss. This intelligent behavior is different from a criminal who is an opportunist whose un-calculated and reckless actions might get them into trouble (Mandisa & Lanier, 2012). The two main variables of integrated theory, as mentioned earlier, are certainty and (Liu, 2017). This implies that the moment a rational decision concerning an act of crime (trafficking) is made, and the vulnerability of a victim has been ascertained, the crime (human trafficking) resumes (Mandisa & Lanier, 2012). At this point, both drug and human traffickers have considered the proper retort of their crimes to determine the punishment that faces them if they get caught (Liu, 2017).

#### **Section IV: Recommendations and Conclusions**

##### **Recommendations**

To combat involuntary prostitution and human trafficking, a comprehensive approach must be considered. Public health, criminal justice officials, and legislators must work together to prevent, protect victims, and prosecute human traffickers (Liu, 2017). A global effort addressing cryptocurrencies should be considered. Much like we have international law that addresses trade, travel, and the like, there needs to be international law regarding the use of cryptocurrencies.

As described previously, Rational Choice and Economic Theories can play a significant role in combatting these issues. Drug trafficking and human trafficking are criminal enterprises that generate billions of dollars for criminal organizations down to individual masterminds (Barratt, & Aldridge, 2016). These crimes are made easier to commit with the added anonymity

of the dark web and the use of cryptocurrencies (Barnett, 2016). In terms of offending, rational choice theory assumes that offenders make their criminal decisions based on the prospective benefits and possible consequences related to committing a crime. After all the pros and cons are taken into consideration, offenders will then make a rational choice based on this evaluation.

The ease of use for cryptomarkets and the difficulty for law enforcement to track cryptocurrencies begin to make the choices to commit trafficking crimes much more comfortable. The rational choice begins to take the shape of a low-risk crime with the odds of being caught growing smaller. Therefore, before committing a crime of trafficking (drug or human trafficking), the reasoning criminal weighs the chances of getting caught, the severity of the expected penalty, and the value to be gained by committing the act. This means that if offenders perceive the costs to be too high, the action to be too risky, or the payoff to be too small, they will choose to not engage in the act.

Economic Theory follows this pattern much the same way. Does the financial gain of selling drugs or trafficking individuals outweigh the potential losses if one were to get caught? Again, cryptomarkets that put potential customers in contact with dealers without fear of getting caught, and dealers who accept a form of currency that is difficult to trace only lead to dollar signs for enterprising criminals (Garoupa, 2014). Shoukry (2016) notes that criminals have much of the same goals as non-offenders. They want beautiful cars and a decent place to live much like the rest of us, And just like us, they make decisions that will provide the best possible financial windfall with the lowest potential risk.

These theories not only dictate the actions of the sellers or dealers but of the consumer as well. A buyer's willingness to pay, whether it be drugs or sex, depends significantly upon two

sets of considerations; the overall availability of narcotics and/or victims and the risk of discovery and prosecution (Akee, Basu, Bedi & Chau, 2014). Each of these considerations affects the ultimate decision upon whether to participate in the consumer end of trafficking. Akee, Basu, Bedi, and Chau (2014) suggest that an international effort be made to combat trafficking on the consumer end of the spectrum. If the buyers and consumers faced penalties that were just as harsh as the dealers, it might deter the consumer base from spending the money and therefore crippling the industry.

Other things that could help include an increased focus on the victims of drug abuse and the violence it creates. Legislators in the United States and around the world need to take a long hard look at policies regarding the internet and The Dark Web. Regard will have to be given to individual freedoms and privacy, especially given the increased use of the internet in illegal activities. However, concessions may need to occur on behalf of the citizenry to adequately tackle the issue of drug trafficking. Policies concerning black market disruptions and reducing demand for prohibited goods are necessary along with other systems that will reduce the potential benefit and financial gains to criminals that will prevent them from a successful crime (Shoukry, 2016)

Drug violence and other criminal enterprises, such as human trafficking, cannot be tolerated by any nation. There needs to be a stronger global focus on battling drugs, drug violence, and avenues such as The Dark Web that facilitate the problem. While progress is being made, more action is needed regarding both national and international law as well as a coordinated effort by partnering nations to battle trafficking on all levels from precursory chemicals to manufacture opioids and other illegal narcotics, to providing better protections to smuggling victims to encourage them to fight against it.

## **Conclusion**

The relationship between drugs and the internet is one of complexity, and there is no easy answer to solving the problem. Drug trafficking is driven by a range of factors, such as greed, poverty, and social imbalance. However, ease of access, anonymity, and use of cryptocurrencies is what is fueling the illegal drug trade the most today. Crypto drug markets and cyber drug user communities have continued to innovate in providing ways for illicit drug markets to flourish. The ever-developing interfaces, the growth of cryptocurrencies, and the increasing number of anonymous networks have facilitated the ease of access to drug cryptomarkets located on The Dark Web.

Drug trafficking is a global issue and, because of the nature of the crimes and the human rights issues which it creates, policies and legislation from the United Nations and leading countries such are necessary to combat this issue. The relationship between drugs and violence is one of complexity, and the advent of The Dark Web has only caused more issues with fighting drug trafficking. There is no easy solution to solving the problem. One could look at the problem of drug trafficking and its' association with The Dark Web as looking through a telescope. When staring into space, a person can see stars (websites) and constellations (web servers), but as everyone knows, there is a vast expanse of space that we cannot see and do not know anything about; that is The Dark Web that law enforcement must tackle every day.

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