

# **An Analysis of Using Blockchain Technology to Reduce Modern Slavery in Fishing Industry**

**Wenxuan Shen**

Scarborough Campus, Toronto, Canada

2423165222swx@gmail.com

**Keywords:** Blockchain Technology, Modern Slavery, Fishing Industry

**Abstract:** Most people know about the word ‘slavery’ through history books. We often see news channels report slavery in remote areas. But, many urban cities in developed countries – like China, America and Britain – aren’t altogether free from its vicious and immoral influence. Slavery is a regressive practice and leads to the deterioration of the human civilization. It is believed that using blockchain technology can effectively restrain the modern slavery from happening in many ways. This article will mainly focus on how to apply block chain technology to the control of modern slavery in the fishing industries, which witnesses one of the highest slave trades.

## **1. Introduction**

It is easy to understand slavery, but what is modern slavery then? According to the The Global Estimates of Modern Slavery, the estimate of forced labour comprises forced labour in the private economy (forms of forced labour imposed by private individuals, groups, or companies in all sectors except the commercial sex industry), forced sexual exploitation of adults and commercial sexual exploitation of children, and state-imposed forced labour [1]. So modern slavery include forced labour, forced marriage and many other forms coercion that lead to bondage of some or the other kind. Contrary to popular opinion, modern slavery is not just limited to Third World or developing countries, it happens everywhere. Even at this moment, thousands of workers, men and women alike, are facing abuse. The data on modern slavery is shocking, “According to the International Labor Organization, there are 40.3 million victims of human trafficking globally and most countries serve as a source, transit, or destination country for trafficked victims. Of the 40.3 million human victims, 16 million are forced into labor in the private sector. They can be found working on the supply chains of large multinational corporations, particularly in the fishing, textile, construction, mineral, and agricultural industries. The massive population of human trafficking victims exploited within the private sector inspired the UK to pass the Modern Slavery Act of 2015. This law requires all organizations with worldwide revenues of at least £36 million that operate in the UK to publish an annual transparency statement describing the efforts they took in the previous fiscal year to ensure that their business and supply chains are free from modern slavery and human trafficking [2]. Some people may think that reinforcing human right laws or strict supervision in these industries can easily solve the problem. However, it’s much more complicated than that. Modern slavery isn’t just a simple breach of law, it involves ethical, cultural, economic and even political problems.

## **2. Modern Slavery or Forced Labor in Real Life**

### **2.1 Forced Labour of Children and Forced Marriages**

For example, children from impoverished countries are trafficked and smuggled in to developed ones like America and British. This happens due to the negligent policing and slack laws governing children’s interests. In fact, children are one of the prime victims of modern slavery. According to the 2017 Global Estimates of Modern Slavery, one in four victims of modern slavery were children. Some 37 percent (5.7 million) of those forced to marry were children. Children represented 18 per cent of those subjected to forced labour exploitation and 7 percent of people forced to work by state

authorities. Children who were in commercial sexual exploitation (where the victim is a child, there is no requirement of force) represented 21 percent of total victims in this category of abuse [1]. The children who are trafficked are usually forced to work in factories, under hazardous conditions with little remuneration. Some are sold to rich families and work as servants. However, they aren't always traded by conventional dealers. Some are sold by their parents facing abject destitution in poverty-ridden countries. Parents with 5-6 children sell one of their offspring to eke out a living. Therefore, such cases are hard for the authorities to supervise.

## **2.2 Forced Labor Exploitation in the Second Industry and Other Manufacturing Industries**

Forced labour often involves illegal immigration from impoverished countries like Afghanistan, Vietnam and parts of Africa. Illegal immigrants don't have legal status. Many of them even have no ID or passport. They cannot find a formal job due to their illegal status so they are forced to take up unsupervised work at factories. Forms of exploitation include charging high fees from labourers for recruitment, while paying them meagre allowances in return. Moreover, the contents of the job are not always as promised at the start. Immigrants in a new country have very little support to fall back on. As a result, they have to take up whatever employment is available, even if that harms their physical and mental well-being, and violates their basic rights and self-dignity. Even if they want to escape, they can't seek the help of local authorities, as that would raise the question of their illegal immigration and put them into more trouble. The United Nations Office on Drugs and Crime (UNODC) reports that approximately 60 percent of victims of trafficking in persons detected between 2012 and 2014 were from outside the country where they were exploited [3]. For example, many Philippine immigrants, who migrated to developed countries like America and China, were sold by the job hunters to rich families as maids or babysitters. The job hunter will find excuses to take their passport away from them, so they have no legal proof of their immigration. Once they are bought, their respective employers retain their passports. These Philippine are subjected to harsh living conditions and have little or no freedom. If they try to run away, they will never be able to get their passports back. Nevertheless, some try to escape and find the authorities for help. These Philippine maids or babysitters are sought-after for their low prices and submissiveness.

## **2.3 Forced Labour in the Fishing Industries**

According to the research by the Global Estimates of Modern Slavery: Forced Labour and Forced Marriage, 11% of the forced labour happened in Agriculture, forestries, and fishing [1]. The Forbes article editor Alex Capri mentioned that there are some 300,000 forced-laborers in the Thai fishing industry alone. Many are migrant workers, mostly from Cambodia, Laos and Myanmar [4]. The Trafficking in Persons Report issued by the U.S. Department of State focuses on the cases of human trafficking within 189 countries. In 2021, information on more than 50 countries specifically referenced the presence of trafficking and forced labor within the fishing sector. It would also be a difficult task for the government to bring in check forced labour within the fishing industry. Fishing industry used to be largely ignored. Only a few people paid attention to the structure and complicated working routine of the profession. The forced labour market in the fishing industry does not find much public attention, neither are the stories frequently covered by media houses. Therefore, people presume that forced labour only takes place in the manufacturing sector.

On the other hand, the nature of the work of the fishing industry makes it hard to supervise the exploitation of the workers. To be more specific, the work period of a fishing boat that sails to the outer sea (such as the Atlantic Ocean) is about 2-3 years. During that period, there is little chance for the fishermen to make contact with the continent. This leads to the rampant violation of human rights on the fishing boat sailing to the outer sea. False promises are made to the workers at the start. They are told that they will be working at a factory or a building site, but then they find themselves on a fishing vessel, sailing to the centre of the pacific. Few of them know how to write or read foreign languages, so they end up signing agreements that involves unfair practices or even fake working contracts. Once they have entered the bond, they have no choice but to defer to the orders of the captain. Failure to do so will only lead to strict penalty or a breach of the contract. Most workers are also sleep-deprived and undernourished. They have to work more than 18 hours a day and if they

don't, they have to face the abuses of the boatman. Once on the vessel, there's no escape for a good two to three years. Once there was a news reported that a fisherman was trapped on the fishing vessel for 23 years. He never made it back to the mainland. These chilling stories of human trafficking and forced labour remind us that we should pay equal attention to the fishing industries as well.

### **3. The Blockchain Technology's Contribute to the Forced Labour in Fishing Industry**

#### **3.1 Blockchain Technology**

To start with, blockchain is basically a data base that does not belong to any particular authority or individual. It can record every transaction and trade using virtual currency. The definition of blockchain according to IBM is a shared, immutable ledger that facilitates the process of recording transactions and tracking assets in a business network [5]. An asset can be tangible (a house, car, cash, land) or intangible (intellectual property, patents, copyrights, branding). Virtually anything of value can be tracked and traded on a blockchain network, reducing risk and cutting costs for all involved [5]. It was proposed by a person called "Satoshi Nakamoto" over the fundamental of the Bitcoin in 2008 [6]. The essence of the block chain is a virtual ledger that cannot be addressed. Comparing to the traditional ledger, the block chain has the superiority of being "easier to record, less errors in recording, and impossible to be addressed." However, it is limited to only transactions using virtual currency. Using blockchain can help enterprises supervise trade, make transactions more transparent. The reason why it is so effective is that every single transaction in the blockchain is recorded, and can't be reversed. Governments can also use such technology to make the industry more transparent. Commercial bribe does not exist, and due to the digital ID card in blockchain, it also helps regulate forced labour and human trafficking.

#### **3.2 Blockchain's Effects on Forced Labour in The Fishing Industry**

As we have mentioned above, the proportion of the fishing industry in all forced labour events is high. And it is also very hard to supervise as discussed. The first thing that the blockchain can do is to create a digital ID to prevent the workers without registration to enter the industry. Fisherman, working as the first link in the fishing industry, needs to have a digital ID to start work and get paid. This will not only help control illegal immigration, but will also be are strict agencies from recruiting illegal labour. Traditionally, a fishermen would get paid by the ship's boss every month. But in the blockchain, the payment would be paid virtually; as a result it will be recorded and become more transparent to the public, the consumer can use the QR code on the food tag to make sure that the food was not the consequence of forced labour. Moreover, since every single block (or trade) is linked together, it wouldn't be possible for an enterprise to hide a specific part of the manufacturing. Besides, using special equipment can help supervise the health conditions of the workers and if any abnormal data is detected, the company will automatically pay overtime for the extra hours worked by the labourer. The failure to do so will be met with punishment. What's more, blockchain can also track enterprises and companies involved in forced labour before. So the other companies could identify them and avoid following in their footsteps.

### **4. Conclusion**

In essence, blockchain is an effective solution to curb human exploitation and slavery in the fishing industry, as well as other related sectors. Not only does it record transactions, but also issues digital ids for labourers and monitors real-time work output. Therefore, if any employee is overworked, it will automatically notify the authorities, in charge of supervision, who will then mandate the employers or companies to make due monetary compensation. Any deviation from the norms will be tracked at that very precise moment, thereby helping curb slavery and in due time, maybe, even help abolish it completely.

## References

- [1] International Labour Office. (2017, September). *Global estimates of modern slavery: forced labour and forced marriage*. Geneva. [https://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/documents/publication/wcms\\_575479.pdf](https://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/documents/publication/wcms_575479.pdf)
- [2] Gov.UK. (2021, July 28). *Publish an annual modern slavery statement*. <https://www.gov.uk/guidance/publish-an-annual-modern-slavery-statement#history>
- [3] United Nations Office on Drugs and Crime. (2018). *Global Report on Trafficking in Persons (2018)*. [https://www.unodc.org/documents/data-and-analysis/glotip/2018/GLOTiP\\_2018\\_BOOK\\_web\\_small.pdf](https://www.unodc.org/documents/data-and-analysis/glotip/2018/GLOTiP_2018_BOOK_web_small.pdf)
- [4] Capri, A. (2018, February 14). *How blockchain could help end modern day slavery in asia's exploitative seafood industry*. Forbes. <https://www.forbes.com/sites/alexcapri/2018/02/14/how-blockchain-could-help-end-modern-day-slavery-in-asias-exploitative-seafood-industry/?sh=1f164c04b652>
- [5] International Business Machines Corporation. (n.d.) *What is blockchain technology*. <https://www.ibm.com/topics/what-is-blockchain>
- [6] Blockchain. (2021, October 9). In *Wikipedia*. <https://en.wikipedia.org/w/index.php?title=Blockchain&oldid=1049096395>