

Role Of Block Chain In Logistics

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Introduction

Technology has changed every industry in the world, and logistics is no exception. With the drastic revolution in digitization, the logistics industry is now getting a complete makeover. As logistics turns out to be the foundation of every industry, like e-commerce, retail, and healthcare, the corporate world today has aligned its various strategies under the developing logistics, such as robotics in the supply chain industry. Once-futuristic methods such as drones have improved speed and brought more convenience to consumers; with some of the recent advancements in technology, various industries are focusing on improving their delivery scores and improving the consumer experience.

Block Chain

Blockchain was first felt in the logistics industry in 2008. With the security provided by blockchain, there is an impenetrable way of storing and sharing transactional data while at the same time improving credibility with foolproof transactions. For instance, if there is proof of a consumer's identity through the structure of the blockchain, it is impossible to fudge it during delivery. Moreover, it is impossible to map and guess the unique Blockchain registration number of every delivery channel. In the next ten years, more than 30% of global organizations will incorporate Blockchain automation in various transactional procedures (Crosby, 2016). Back in 2008, during the Great Recession, the anonymous developer of the Blockchain proposed a peer-to-peer sharing of virtual cash that would facilitate online payments to be sent directly from one registered user to another without going to any financial institutions. Later, in 2009, the first Bitcoin was mined.

To date, the total capital investment in cryptocurrency is approximately \$ 150 B, whereas a single bitcoin is traded at \$ 5000. Various organizations, such as Walmart, have successfully completed a Blockchain pilot on food safety and initial coin offerings. Such and other developments have become very popular over time, closing in approximately \$2 billion in financing by 2017.

Politically, Blockchain has established a new exploratory framework for today's centralized network, igniting discussions about digital currency, digital regulation, and the core structures and rails of the modern internet. However, many ask how we got there. Various researchers have explored how various forces have shaped the current landscape in cryptocurrency. Specifically, organizations focus on data-driven frameworks through initial coin offering investments. Such has offered some deeper insight into the future of Blockchain. It is important to note that Blockchain is a catchphrase used in this ecosystem.

The current developments in cryptocurrency prices have created a lot of positive gains for investors, of which a majority have focused on diversifying the ICOs. Readily available capital has played a huge role in the development of Blockchain, with organizations and entrepreneurs opting to raise funds through ICOs as opposed to traditional equity funds. Such has fostered a higher demand for demand for cryptocurrency. Since early 2016, the Ethereum market has increased from \$78 million to approximately \$30 billion today. Initial capital offerings are increasing much faster than other equity-backed frameworks.

Delivery Choice

Nowadays, consumers are spoiled with choices in terms of buying portals, crazy discounts, and a variety of products. Moreover, they also have to choose among the logistics providers to receive their products. There was just a small number of e-commerce organizations offering such features in 2017. However, the trend will change in 2018. There could be a transformative move within the logistics industry, as organizations cannot afford to be in the background. They have to face stiff competition from each other for more advanced, consumer-oriented services.

Currently, factors that would be affected significantly include. Last-mile delivery of which is getting great consideration in the media as well as from entrepreneurs. The cost of delivery, exempting line haul and organization, amounts to approximately \$80 billion. China, Germany and the United States account for over 35% of the entire global marketplace. However, the market is not only large but also vibrant, with a development rate of approximately 11 % in developed marketplaces such as Germany and the United States and almost 250% in growing markets such as India. This means that, in the developed markets, the volume might double in the next few years, reaching the heights of approximately 25 billion parcels in Germany and the United States.

The force behind this development is e-commerce, which has significantly shifted the market share from B2B to the B2C division. B2B once exceeded approximately 40% of the global market, but B2C has not grown to 50% in several countries such as Germany and India. Moreover, the hefty share of the last mile share often exceeding 50% makes it a fundamental process for those who seek to gain a competitive edge. Moreover, it is in the end that a majority of the prospects are struggling, as they often have a high cost of labour. Therefore, having a more competitive disadvantage.

Elastic Logistics

Elastic logistics can be described as the flexibility to expand and minimize capabilities in a way that aligns with supply chain demand during a certain period. Various solutions for flexibility automation often increase the agility of logistic industries to effectively meet any fluctuations in the market. It is not a “one size fits all” framework. However, it offers customized answers to various requirements such as cost control, geographic restrictions, distribution channels and priority delivery, among

others.

The interrelation between supply and demand often defines the daily operations in the logistics industry. In order to handle the changes in demand and order fluctuations, various logistics organizations ensure their operations are elastic to strategize capacity in accordance with the requirements. More and more organizations often outsource their fleet through third-party logistics providers. With the optimum use of such frameworks, companies are able to deliver products on a timely basis while ensuring that the cost is intact, irrespective of increased demand. Simply, elastic logistics can help by improving customer experience, incorporating real-time visibility, linking up various business processes, and finally, offering scalability and agility (Ren, 2010).

There are different reasons why you might be required to depend on external fleets for delivery services or crowdsourcing, among others. Initially, many businesses often used external delivery providers. For instance, there are specific times when organizations often experience peaks-on-demand orders that require delivery in a very short period. In such cases, external delivery helps scale the orders in order to meet the demands of the ping (Cheng, 2010). The party delivery is used in such cases to help in meeting increased demand when running other operations throughout the entire year.

Whatever the reason might be, it is advisable for organizations to have the ability to maintain control of delivery operations irrespective of who is doing it. Moreover, it should be easy for companies to manage their deliveries with full control and visibility. Elastic logistics was developed back in 2000 to keep control of the delivery operations of various organizations, even when they choose to use the services of external fleets (Wei & ZHANG, 2007). Aggregating all orders ensures that there is complete control over the process, keeping all the delivery processes efficient and unified.

After many years of learning logistics, many organizations are possibly going to review their approaches to determining levels of inventory as well as operational capacity. Rather than reducing inventories to a further degree, businesses will respond to the unpredictable demand using elastic strategies that have been designed to accommodate both the established and the much more volatile ebbs through multiple channels of sales. Such moves are aimed at maintaining customer service levels, reducing the unforeseen cost of logistics, and supporting scalable logistic operations. This would allow flexing assets and other resources in response to various market forces as well as trends in consumer behaviour.

Technology plays a huge role in various organizations that are willing to develop elasticity in logistics. Frameworks such as advanced analytics, artificial intelligence, automation and machine learning enable the supply chain to function within different parameters. Moreover, by using the analogy, performance will be improved beyond what is viewed as impossible. While artificially augmented heights of the supply chain are likely to be accomplished by any organization in the next few years, 2020 will probably be the period in which early breakthroughs will be made, and the most appropriate logistics will emerge (Lieb, 2001).

Besides regulations, public opinion on the acceptability of new technologies is probably complex to predict. Given that many drivers often accept a substantial degree of new support systems in today's companies. For instance, speed and distance control are some of the new enhancements. However, some of these new technologies have been incorporated into various organizations and are making huge efforts to convince the public of the benefits of the new developments and, in particular, the superior safety associated with them. So far, the new trend seems to be succeeding. More than 40% of consumers around the world would definitely use the new technological developments. This is a close percentage second to crowdsourcing, which is more than 50% of many consumers would likely use technology in cases such as parcel delivery (Berglund,1999). Among younger consumers, technology seems to be more popular, with more than 50% of them arguing that they will definitely use new technological options in their future operations.

Technology offers a great opportunity for existing and developing service providers in the logistics industry, given the fast growth of 5% in developed countries such as Germany and 20% in China over the coming years. Moreover, significant changes will be made to the operating models outlined in this paper. However, before organizations can move on to bring new technologies in the field of logistics to life, organizations should bring in new strategies that fit the market environment and the strength of the organization.

It is important to note that the competitive landscape with approximately three groups of organizations fighting for dominance in future development, e-commerce players, and a highly dynamic environment is disrupting the marketplace. For instance, In Germany, players in this industry have already begun to push ahead. Technologies such as robots are being tested to facilitate delivery; drones are being operated every day by e-commerce players. Moreover, start-ups are pushing strongly into the global market in an effort to gain access to new pools. Focusing on the three different archetypes -which of them is best positioned to win the rivalry?

The incumbents in this industry have the advantage of having a suitable network that would enable them to compete in the global market. However, will companies be quick enough to adopt new strategies to keep pace with e-commerce companies that have heavily invested in this space? Start-ups have mainly focused on p, point-to-point markets. Therefore, it is not possible to predict whether they will be able to adapt to the new business models and fight off the e-commerce players in this industry.

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