

[DOI: 10.20472/IAC.2020.055.010](https://doi.org/10.20472/IAC.2020.055.010)

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BLOCKCHAIN TECHNOLOGY USED BY ENTREPRENEURS IN ONLINE TRADE

Abstract:

Blockchain technology is used by entrepreneurs as an inovative tool in online trade so that they can handle the problem of traceability of the product in the management of the supply chain. This research want to be a cross-border between blockchain, ecommerce all made in the entrepreneurial environement. In the end it will be a set of methods and algorithms that are developed for the information encryption and for anticounterfeiting. There will be presented algorithms and methods to show a complete and working solution, which are evaluated by applying to several typical problems and attack cases. The effectiveness, extendibility, security, implementation and governance issues of applying these algorithms,methods, solutions are also discussed. This research contributes to the theoretical and practical literatures on blockchain technology, cross-border e-commerce and supply chain management research fields.

Keywords:

Entrepreneurs, Online trade, E-commerce, Blockchain technology

JEL Classification: L81, M41, F32

1 Introduction

View from the influence of globalization, the online trade have a lot of challenges and opportunities. Under the influence of the volatile and complex economic situation, online trade is the new cross-border e-commerce. It is known that is almost impossible for the main supply chain to fulfill the requirements of some developers, so it is needed for cross-border trade supply chain to do the requirements. Therefore, in order to improve the competitiveness of enterprises and realize sustainable development, the competition of cross-border e-commerce enterprises will be transformed into the competition of supply chain management, and more attention will be paid to supply chain management and the ability level of enterprise supply chain service providers.

In our days information, management, logistics and other things are not ideal, despite that in some countries the policy is "One Belt and One Road" and they are promoting chain supply application and innovation. They provide chain supply services to promote the development of the supply chain. However, to improve the supply capabilities, there are lots of encouragement policies to help entrepreneurs to keep advantages and to improve their cross-border e-commerce to be better than others policies.

2 Content

The main core of the blockchain technology used by entrepreneurs as an innovative tool in online trade is made from a combination of the cash flow, logistics, information flow and new blockchain technology. From what is known this technology have its own complexity and dynamic due to internal management, some external factors and in many aspects because of supply chain management and international policy, will bring burden to cross-border e-commerce platform, so by choice for outsourcing to reduce the burden of cooperation, to help platform to enhance competitiveness.

One of cross-border e-commerce supply chain service providers are entrusted outsourcing, revolves around cross-border e-commerce platform main business customs clearance, warehousing (overseas warehouse, bonded warehouse, etc.).

Cross-border logistics services as a platform to retain customers, give full play to their own advantage, and increase the volume. The platform can focus on the strengths, to their own interests to maximize, and profitable for both sides.

Trouble in providing services in online trade supply using blockchain technology

Trouble with overseas warehouses. The costs of the operation and establishment of overseas warehouses are expensive. First, this will involve a large amount of capital to be locked down for the equipment and needed system. Second, in some countries the costs with the human capital is expensive and this will lead to bigger costs.

Expansion competition of overseas warehouses. View from the globalization situation, the multilateral trade have to gain more earnings. The IED (international express delivery) and IP (international postal), under the dictatorship of the global warehouse grown into a target for

almost all service providers. It is critical to find more customers and to continue the relationship to have more benefits, so nobody will monopolize overseas warehouse, which can bypass the extension of brutal competition.

Trouble with cross-border logistics

Replacement and return of cross-border logistics. If a customer ask for replace or return of the goods due to their own reasons or the goods have something wrong, the customer will get in contact with logistics company to be able to send product back, and there will be problems and expenses during the period, and all the troubles need to be solved by the customer. In some of the returning process the cost will be higher than asset value due to customs clearance, logistics costs etc. It is definitely inadmissible if the factory has to carry the result.

Cross-border logistics have a big cost and very long cycle. Management, storage, transportation and other aspects of asset in the cross-border process are complicated than those that are in origin country, so it will generate bigger costs. The cost will be controlled although by service providers, there will be uncontrollable factors, such as customs tariffs, which cannot control its fluctuation. Cross-border logistics that spans from domestic to overseas, has a large space span, and also needs to face policies of different countries and regions. The process itself consumes lot of time and is complicated, so that will make the logistics time delivery very long cycle.

The small transparency of the order information in cross-border logistics. There are involved many processes in cross-border logistics and it takes a very long period of time (very long cycle). The delivery time (data time) cannot be updated by logistics company once the parcel is delayed. The customers are unable to get the status of the parcel due to low level services provided by the logistic companies.

Supply chain have poor information security. The information needs to be shared in the process of transaction, so this will be much safer if we are using blockchain technology for cross-border transaction. In this case the information goes from one party to another, but can not be altered by any method because it is kept in the blockchain. If we use blockchain technology the risk that the information will be stolen is smaller than the risk in a traditional system. Furthermore, the Internet by itself carry lots of security risks. Once the system is attacked the information will not be sent in a traditional system in time and information recovery can be faulty, which will lead risks to the supply chain. If the information is stolen the enterprise will have boundless ramifications.

The fast development of cross-border online trade has led to a great shortage of talent in cross-border e-commerce, and its complex forms of commerce have led to the difference between the supply chain of cross-border online trade and the regular supply chain. Due to involved international trading, it is necessary to have good theoretical knowledge of blockchain, logistics, national culture, customs, good foreign language skills communication etc.

It is imperative to solve the above-mentioned problems to turn to professionals in the field, to understand professional internet companies with extensive experience. To invite third parties such as payment institutions to create an integrated payment system using blockchain technology. information that, in addition to responding to the applicant's needs, also ensures information security and payment security, thus having a responsible attitude towards consumers and society.

Now, universities and colleges help develop and strive to find talent in this new field. The theoretical knowledge in the textbooks is outdated and we can still say that they are limited. Businesses need to work with universities and colleges to give students a chance to put into practice what they are learning in theory and to reduce the discrepancy between the theoretical way of looking at blockchain technology and how to apply it.

3 Conclusions

Cross-border online trade can supply a chain service using the blockchain technology to have a safer way to protect the information of the company so that this will not lead to boundless ramifications. If we are thinking that the international trade is complicated this will make the logistics service providers to constantly develop new transaction service, cross-border overseas warehouse service , logistics services, perfect information system and so on.

To increase the level of skills, it is necessary to take advantage of talent at the same time, continually promote providing better services and quality by using the blockchain technology.

Acknowledgement: This work is supported by project POCU 125040, entitled "Development of the tertiary university education to support the economic growth - PROGRESSIO", co-financed by the European Social Fund under the Human Capital Operational Program 2014-2020

References

1. *Ecommerce Europe: European B2C e-commerce report 2015. Brussels (2015).*
2. *European Commission: Boosting e-commerce in the EU, http://www.europa.eu/rapid/pressrelease_MEMO-16-1896_en.htm. Brussels (2016)*
3. *Liu M. Research on problems and strategies in the development of cross-border e-commerce logistics in China. Commercial Economy 2016*
4. *Kawa, A., Zdrenka, W.: Conception of integrator in cross-border e-commerce. LogForum 12 (1), 63–73 (2016)*
5. *Okholm, H.B. et al.: Principles of e-commerce delivery prices, Copenhagen Economics, <http://www.posteurop.org/NeoDownload?docId=456601>. Copenhagen (2016)*