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Research paper



E-integrator of LBP-Provider of Logistics Barter

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Abstract

Logistic barter is a normal commodity exchange among producers where one thing is exchanged to another without monetary pay on the basis of globally integrated trade procedure. The approach of barter logistics is not abandon money, however ignores it among producers. Logistics has touched and touches such heights, while the requirement for a "universal equivalent of goods" among producers could simply cease to exist [1]. A powerful combination of logistics and e-commerce is expected to lead to significant changes in the overall business landscape. E-commerce will provide an opportunity for many companies to make the necessary communications and conclude transactions with each other, and logistics will provide an opportunity to more effectively use this information to manage activities in their business. Instead of a two-way relationship between the supplier and the customer, the business will increasingly be based on networks of supply chains, made up of groups of suppliers and customer groups [2]. E-commerce, e-sourcing, e-markets are better to be united under the auspices of logistics barter into an e-integrator, which will be the serving element of the LBP-provider. An e-integrator is an integrator of information and communication technologies for supply chains of logistics barter, in the form of electronic means, taking into account a closing link, e-commerce, and the reverse distribution of added value. The paper describes the new LBP-providers which are not a servicing element of the economy, but become operators of an alternative economy themselves. We have also considered the basics for the mathematical concept of a future LBP (logistic barter) operator.

Keywords: *E-integrator, LBP-provider, mathematical model, indifference coefficient, human factor.*

1. Introduction

The main objective of this paper is to introduce independent and combined methods as well as predictive economic tests. Accordingly, in the present paper, econometric methods and how to construct single-variable econometric models are introduced first, then other mathematical methods such as neural network and fuzzy logic will be investigated. Since the behavior of variables is very important in their modeling and prediction, we will study the theory of turbulence and entropy. Finally, conclusions and suggestions will be presented in this area. [2].

Factors of restraining the growth of the speculative component of the Russian financial market should be main strategy by targeted actions of the Russian Banks:

- At the credit market - a strategy to regulate the process of monetary multiplication of commercial banks (on the basis of increasing or decreasing the reserve ratio and the refinancing rate;
- At the stock market - the policy of disciplining its participants through regulatory acts [2, 3]. Here is the contradiction: on the one hand, a state is a bad market manager, it must provide good conditions in bad "places" of the economy". We have the single conclusion: the stock market is "not right" at its heart and is not necessary if there is a logistics barter.

At present, econometrics is used as a fundamental tool in applied research in various economic and non-economic fields, and each day it is added to the scope of application, so that it can be named as the main methods of research in economic studies. [4, 5].

Banks will be ranged against this idea, because a huge layer of artificially created type of activity will fade into obscurity, and it will be banking, which appeared with the advent of money, a universal equivalent of a commodity.

An econometric model is called complete if it contains sufficient equations to predict the values of all variables in it. Thus, econometric goals can be considered as empirical content of economic relations to test economic theories of prediction and decision making. With the help of econometric techniques, we can estimate the unknown coefficients of the constructed model, then (if some assumptions are made), to make statistical inferences about them

2. Methods

It is not necessary to study the procedure of exchanging the necessary things sources. The payment process can be replaced by the process of information exchange. In the age of IT technology and the Internet, this is real. Money should only be for end-users (households) and end-users in need can apply to banks.

The main rule of logistic barter is that an end enterprise will give the received money for goods from households to workers of all categories and enterprises according to the share of added value along the supply chain [5]; the market and competition still remain.

If to analyze the exports of the United States and Russia, you can see that the US mainly exports only goods with a large added value (feature films, show business goods, branded clothes, etc.), and Russia - raw materials with low added value. Consequently, developed economies will be in the greater benefit from the introduction of logistics barter. As expected, there should be corresponding comprehensive and developed structure of the economy and society for the introduction of logistics barter. Others also have too many directions to develop.

Recently, the focus of many transactions in supply chains has changed. Where supply chain managers had mostly been limited to internal tasks, they are now increasingly focusing on external

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links between their organizations and other parts of the supply chain. 3PL and 4PL category providers, joint planning, *e* -supply and other developments led to the extension of the traditional supply chains, what has become possible largely due to new advances in technology. Supply chain management is aimed today in unprecedented scales at creating relationships with other structures, understanding the essence of these relationships and their optimizing [1]. At the moment, 5PL providers are the "ceiling" of supply chain management, but 6, 7... 10 PL providers will be needed for logistics barter, or they should be called 1LBP, 2LBP... - logistics barter providers because there must be a completely different, predominant representation of the role of logistics and logistics barter in the new economy. Logistic barter *is a* web, an integrator is an LBP provider. Do not we create a "monster"? There is such a probability, but there are laws of different countries on antimonopoly regulation.

We forecast the progress of logistics operators and the possibilities of logistics barter the capabilities of a logistics operator (provider) to the reference state (requirement) of the logistics barter [6].

$@ = \varphi (I) / \psi (J)$

where φ (I) is the level of the total possibilities of the logistics operator (logistics), not only for a possibility to replace the monetary links among producers by barter (this is analogous to the fact if adulthood, for example, comes in 18 years.

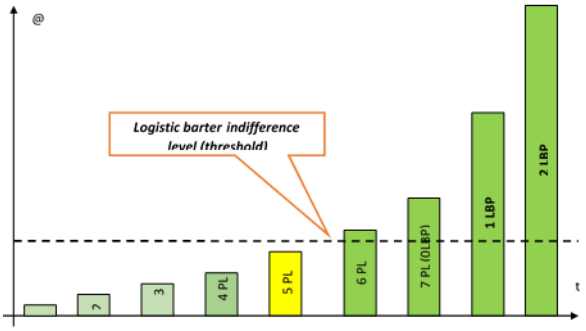


Figure 1:. The variation threshold of logistic barter [1]

All development trends are in good harmony with logistics barter. In this case, the logistics barter will be the central unifying link, and the LBP- provider will be the main operator. E-commerce, e-auctions, e-sourcing, e-markets under the aegis of logistics barter are better integrated into an e-integrator, which will be the service element (one of the tools) of the LBP provider.

E-integrator is an integrator of information and communication technologies for supply chains of logistics barter in the form of electronic means, taking into account the closing link - e-commerce and the reverse distribution of added value [1].

Undoubtedly, LBP-provider is impossible to be imagined without advanced IT technologies. The astounding progress in the development of digital technology makes it possible to think of the possibility to create a LBP- provider.

3. Results and Discussion

The basis for the development of logistic barter will be the elimination of the human factor in all links. This means that all functional areas of logistics should exclude the human factor due to the absolute impossibility of an objective assessment of a human "act" in making a decision. Are the functional areas of logistics ready for this?

The central link of logistics barter is *information logistics*. In modern supply chains, work is based on IT, and in the near future, an e-integrator of logistics barter will be ready to implement the concept under consideration.

In the field of *procurement logistics*, the human factor cannot be completely excluded. This area is in the ripening stage before its integration into the LBP-provider work system.

The wide application of advanced technologies and robots in *production logistics* will allow in the near future to exclude an impact of the human factor on business processes.

In *distribution logistics*, as well as in procurement, it is not yet possible to completely exclude the influence of the human factor. This sphere is at the stage of development.

Considering *transport logistics*, one cannot but note the following: at the present time, unmanned vehicle driving technologies are already being used. Progress in this area is facilitated by the development of such giants of the market as Apple, Google, BMW, etc., so in the nearest future it is possible to exclude the influence of the human factor.

Time series models are often used in situations that are expected to continue, and do not seem appropriate to predict the effects of changes in economic structure. Generally, time series changes can be due to changes in some of the natural factors and some economic and social factors that are usually considered in this regard four main components of the process, periodic changes, seasonal changes, and changes in the system. One of the most common methods for predicting economic variables is the use of Box-Jenkins 1 psychology. This method is based on four stages of model identification, model estimation, diagnosis of fitting accuracy and prediction.

The Box-Jenkins methodology is both predictable and predictable for cross-sectional and continuous data as well as discontinuous data. Therefore, data must be measured at equal intervals. In addition, the Box-Jenkins methodology can also be used to predict seasonal and non-seasonal data.

Readiness of the integrator to transition to operate within the framework of logistic barter can be predicted using Table 1.

Table 1:. The actual and reference states of the integrator

Functional areas of logistics	Current level of the total capabilities of the logistics operator	Reference condition (requirement) of logistics barter
Information Logistics	1	1
Purchasing logistics	0.5	1
Production logistics	0.3	1
Distribution Logistics	0.5	1
Transportation Logistics	0.5	1

The benefits of implementing the logistics barter will be very large. Right now there is no any perfect instrument of the logistics barter, and the goods cannot be manufactured at will and delivered quickly, so money is needed, as a temporary instrument of delay. Of course the era of money in the modern sense was long, but the world knows no limitations, it is developing, and the logistics barter can play a key role.

As human knowledge of economics has experienced tremendous changes over the past years, the application of advanced mathematics to econometric theories aimed at estimating the relations between economic variables has undergone many improvements and all these improvements have been made to improve the modeling of fluctuations in economic phenomena , Nowadays, any decision and orientation in economic programs requires the use of econometric methods, which is a method and tool for analyzing economic variables.

The theory of logistics barter (barter logistics) does not abandon An LBP-provider cannot be represented without advanced IT technologies. The astounding progress in the development of digital technology makes it possible to think of the possibility to create an LBP- provider.

4. Summary

Progress is on and there are some weaknesses in the current economic system. For example, if the mass of money circulating in the stock markets really rushes, catastrophic inflation is inevitable. Teachings for logistic barter can correct this situation.

As a result, it can be noted that all this was presented not to find errors, but to try to find new incentives and ways for development.

5. Conclusions

The possibilities of E-integrator are growing, but this is only one of the tools of the logistics barter provider. A connecting model of the capabilities of all logistic barter tools is needed to assess the development and capabilities of the provider φ (I) to transfer to barter between producers and the ability to distribute money between the personnel of different enterprises on the basis of the added value of each link in the logistic barter chain. At the same time, it is necessary to determine the reference value of the logistics barter ψ (J); it will be equal to one in digital terms. There would be a lot of work to select indicators and conduct their evaluation. The question on maturity of functional areas of logistics (procurement, production, distribution, transport and information), i.e. the possibility to accept new rules of the game dictated by other operators of the economy, is still open. However, the logistics are developing, and the discovery of new opportunities in the management of supply chains is just around the corner.

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