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INNOVATIVE SOLUTION IN THE MODELING OF FOOD DISTRIBUTION CHANNELS AS A FACTOR OF SUCCESSFUL ORGANIZATION OF AGRICULTURAL PRODUCTION

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Summary: Profit maximization in the agricultural sector should go in the direction that will enable agricultural products to be marketed through a realistic distribution channel. This applies in particular to the distribution channel of the food supply. In addition, the food distribution system should focus on the dominant observation of the production of food produced inland. Food distribution should take into account market competition, distribution and logistics costs, the existence of unequal quantities of food shipments, etc. That is why it is of great importance to adopt realistic models that will appreciate modern innovative ways of logistics that will help real food distribution. In addition, up-to-date information and communication technologies should be respected to support such distribution approaches. This paper draws attention to the importance of implementing a possible new food distribution model based on an innovative approach.

Key words: *short food supply chain; distribution; sustainability; information and communication technology; business process modelling*

INTRODUCTION

Buyers who are interested in modeling the food supply process should be consistent with maintaining the agricultural sustainability principle.

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This means that the principles of economic, environmental and social nature are respected while providing progressive opportunities to pursue the planned activities.

The basis of such modeling should be to satisfy the management of agriculture and the unmanageable food management, which will mean the practical management of the distribution channel, which will be in accordance with the planned economic plans of the drivers of activity.

Modeling regarding food management and its distribution should take into account the current economic conditions. The aim of the activity is to reduce the number of traffic participants, to reduce the brokerage fee, while facilitating the control of the selling price.

Such observation should be with respect for a sustainable society and impact on social development. Therefore, the distribution of agricultural products, respectively, of food observed in the management of [1], [2], [3], [4], [5] heterogeneous factors that affect the distribution of food [6], [7], [8], [9], [10] which functionally occurs in the model of distribution of movement of movement [11], [12], [13], [14] of food towards the end consumer [15] which is viewed as the focus of economic activities.

MANAGING FOOD DISTRIBUTION AS A BASIS FOR MODELING DISTRIBUTION CHANNELS

Managing the distribution of food, viewed through the flow of food, from the place of production to the point of sale to customers, should be viewed through the justification of the total spend on the process of logistics activities.

Contemporary management that faces distribution channels in the context of contemporary logistics trends should primarily reduce costs. This is achieved through the use of digitization, which will facilitate communication with the end customer and strengthen all activities in the observed food distribution channel to the end user.

A factor that must be respected on a continuous basis is towards satisfying technological advances in the field of information and communication technologies. This requires an appreciation of the model in the process of implementing a logistical strategy in the agricultural business that is complemented by food production. It is essential to allow for rational, economically viable distribution of food within the territory of a country.

The food distribution thus observed is basically viewed in relation to the needs of customers who accept to pay at affordable prices for the food thus offered. The basis for this study is to find an effective food distribution model system, that is, an innovative approach to modeling food distribution channels.

INNOVATIVE LOGISTICS SOLUTIONS AS A PRODUCT OF THE SUPPLY CHAIN MANAGEMENT STRATEGY

When defining a supply chain management strategy, companies are confronted with a number of limiting factors that result from the changes that are happening in the global economic environment.

These changes, in the form of new trends, affect the business strategy, which directly depends on the choice of strategy to be applied by the companies dealing with the organization of food distribution in a particular market.

The authors illustrate possible solutions that will implement innovations in the logistics approach to food distribution through the illustrations in Figure 1.



Fig.1 Framework for defining SCM strategy generally

RESPECT FOR THE FOOD DISTRIBUTION CHANNEL ENVIRONMENT

The authors provide a possible overview that points to the observation and importance of the environment from the impact on the consumer as a target category, which is the focus of all movements in the form of tracking the product from the moment of creation to the moment when it is offered for sale. The authors illustrate the importance and the impact on the consumer of the environment by presenting the number 2 image.

This implies that the environment influences changes in business and competitive strategies, which is ultimately the result of changes in strategy that will be implemented by new and innovative logistics in the distribution of food in the country by companies primarily engaged in agricultural business.

Such a practical model of behavior requires the application of the following factors of influence on the customer as a key point of the distribution system. The view is given in Fig.2, a possible way to organize and influence the customer as a key category of observation.

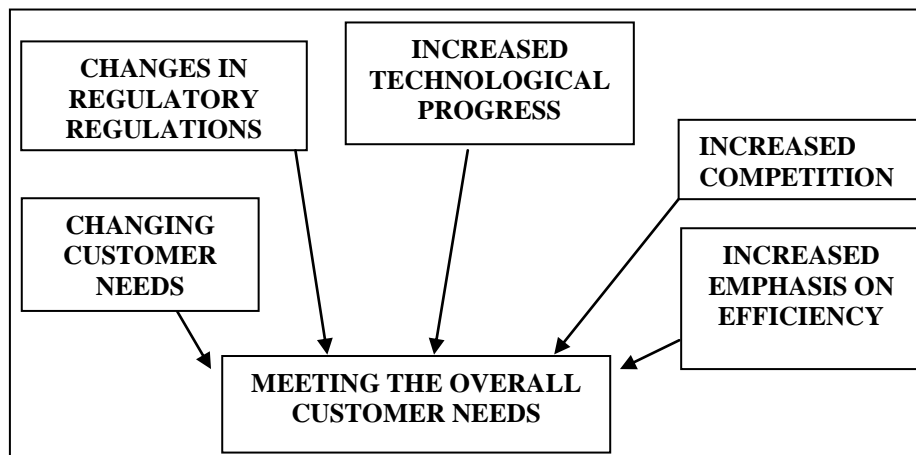


Fig. 2 Meeting the needs of customers who are the focus of interest for food distribution companies

DISCUSSIONS

The formation of innovative models of a sustainable efficient logistics system in food production that is complementary to agriculture is of great importance for the formation of a new logistics system for food distribution. It is essential for the development of a logistical food distribution system the introduction of innovative models that will empower distribution in the economy of a country.

In this paper, the authors have drawn attention to the existence of an innovative approach or model by which the implementation of the logistics distribution model in food distribution channels that are essentially produced by agriculture in one country will be implemented.

In this way, through the use of logistical capacities of food distribution, to meet the basic and desired needs of customers, they can be realized at decent and realistic prices that the buyers of products will be able to pay.

CONCLUSION

In this paper, the authors draw attention to the use of innovative models that are possible and applicable in the distribution of food in a country that meets the needs of customers at real economic prices.

The authors provided an example of an innovative possible model that can be upgraded and form the basis for future research in the process of forming a model of innovative food distribution.

This approach, that is, a model that will be able to incorporate some important innovations in food distribution and customer satisfaction, should be seen as an economically logical model. However, there are limitations in implementation. They relate to the required quantities of food produced in the country, the existence of relatively high costs, especially transport, trade costs, etc.

One way to solve the problem of distribution efficiency can be solved by forming a cluster of manufacturers to share their transportation resources and through a common distribution planning process. In addition to the advantages and disadvantages of the models presented by the authors in the work, the choice of a particular distribution model should also take into account the following factors: size of the food distribution lot, duration, range, risk of purchase error, transaction costs, support for service, customization, and many others factors that may be relevant to speed up the management of, above all, food distribution companies produced by the agrarian sector of the country. All this needs to be included and addressed in some future research.

REFERENCES

- [1] Damodaran, A. (2007). Korporativne finansije: teorija i praksa, Podgorica, Modus.
- [2] Cantino, V. (2009). Korporativno upravljanje, merenje performansi i normativna usaglašenost sistema internih kontrola, Beograd, Data Status.
- [3] Engelseth P. (2016). Developing exchange in short local foods supply chains. *Int. J. Food System Dynamics*, 7(3): 229-242.
- [4] Stahlbrand L. (2016). Short food supply chains and "infrastructure of the middle": The role of university food procurement in sustainability transition. Wilfrid Laurier Univ., Waterloo, Canada.
- [5] Martikainen A, Niemi P, Pekkanen P. (2014). Developing a service offering for a logistical service provider-case of local food supply chain. *Int. J. Production Economics*. 157: 318-326.
- [6] Kull TJ, Chae S, Choi T. (2017). The Future of Supply Chain Management. *S. Chain* 24/7.
- [7] Casadesus-Masanell R, Feng Z. (2013). Business model innovation and competitive imitation: the case of sponsor-based business models. *Strategic Management Journal*, 34(4): 464-482.
- [8] Janssen GR, de Man AP, Quak HJ. (2015). Strategic business models for cross-chain control centers (4C). In: de Kok T, van Dalen J, van Hillegersberg J. (eds.) *Cross-chain collaboration in the fast moving consumer goods supply chain*. Eindhoven University of Technology, Eindhoven, Rotterdam, Enschede, Netherland.
- [9] Thilakasiri T. (2010). Importance of business process reengineering.
- [10] Ribeiro C, Fernandes J, Lourenco A, Borbinha J, Pereira J. (2012). Using serious games to teach business process modeling and simulation. In: *Proceedings of the 2012 World Congress in Computer Science, Computer Eng., and Applied Computing*, 16-19, Las Vegas, Nevada, USA.
- [11] Verdouw CN, Beulens AJM, Trienekens JH, Wolfert S. (2010). Business process modelling in demand-driven agri-food supply chains. In: *Proceedings in System Dynamics and Innovation in Food Network*, 307-322.
- [12] Engelseth P, Hogset H. (2016). Adapting supply chain management for local foods logistics. *Int. J. Food System Dynamics*, 7(3): 143-160.
- [13] Northouse, P. (2008). *Liderstvo*. Beograd. : Data Status.
- [14] Rodriguez, M., Miguel, Sanchez, L., Cejudo, E. & Antonio, C. (2019). Variety in local development strategies and employment: LEADER programme in Andalusia. *Agric. Econ. – Czech*, 65: 43-50.
- [15] Nowak, A., Janulewicz, P., Krukowski, A. & Bujanowicz-Haraš, B. (2016). Diversification of the level of agricultural development in the member states of the European Union. *Cahiers Agricultures*, 25: 55004.

INOVATIVNO REŠENJE U MODELIRANJU KANALA DISTRIBUCIJE HRANE KAO FAKTOR USPEŠNOSTI ORGANIZACIJE POLJOPRIVREDNE PROIZVODNJE

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Sažetak: Maksimalan profit u poljoprivrednom sektoru treba da ide u pravcu koji će omogućiti da produkti poljoprivredne delatnosti mogu da se plasiraju na tržištu putem realnog kanala distribucije.

To se naročito odnosi na kanal distribucije snabdevanja hranom. Osim toga, sistem distribucije hrane treba da bude usmeren na dominantno posmatranje proizvodnje hranu koja se proizvodi unutar zemlje. Distribucija hrane treba da uvaži tržišnu konkurenciju, troškove distribucije i logistike, postojanje nejednakih količina pošiljki hrane itd. Zato je od velike važnosti da se usvoje realni modeli koji će uvažavati savremene inovativne načine logistike koji će pomoći realnu distribuciju hrane. Osim toga potrebno je i uvažavati savremene informacione i komunikacione tehnologije, kao potpore takvim pristupima distribucije.

Ovaj rad, skreće pažnju na značaj primene mogućeg novog modela distribucije hrane koji se zasniva na inovativnom pristupu.

Ključne reči: kratak lanac snabdevanja hranom; distribucija; održivost; informaciono-komunikaciona tehnologija; modeliranje poslovnih procesa

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