

THE ROLE OF LEASING IN THE SUSTAINABLE DEVELOPMENT OF ROMANIAN AGRICULTURE

Dănăilă Gabriela-Liliana¹
Moisescu Florentina²

Abstract

The paper aims to express the role of leasing in the sustainability and persistence of Romanian agriculture, by understanding leasing as a secure and efficient way of financing. Leasing is currently a business model that contributes to sustainable and persistent development by recirculating products and ensuring economic performance. Leasing is a step forward for companies wishing to purchase equipment but they do not have the necessary sources of financing. In particular, the study highlights the many benefits of leasing to companies that use this method of financing, showing that the adoption of this method is more "green". The state encourages the use of this method because it leads, on one hand, to the increase of economic performances in the form of financial-accounting indicators, but also, to the growth of the national economy. Particular attention is paid to the analysis of leasing in agriculture in Russia, the Republic of Moldova and Romania. Data on the production obtained both in Romania and in the Republic of Moldova, data on the cultivated area in Romania and data on the evolution of agricultural equipment in Russia were used and analyzed. The data obtained from the analysis in Romania led to the implementation of the SME Leasing program of equipment and machinery. The SME Leasing program of equipment and machinery has many advantages for those who want to obtain equipment through it. This program is mainly addressed to economic agents in the agricultural sector, because they use their equipment excessively, due to lack of funding and investment.

Keywords: *Leasing, agriculture, sustainable development, persistent development*

Introduction

Leasing has existed since ancient times due to the need to rent land, agricultural tools and slave labor. Forms similar to leasing have been noted since antiquity in Egypt, Mesopotamia and Phoenicia. These forms were aimed at renting agricultural tools, but also land. The contracting parties were the wealthy class and the farmers. The rental of agricultural tools for farmers was recorded on clay tablets that were discovered in the Middle East and that have existed since the third century BC. The emergence of leasing as a notion and form of financing dates back to the '50s, but its economic base was formed in the period preceding the Second World War. The first leasing company in the USA was registered in 1855, under the name "The Birmingham Wagon Company" and in 1877, the Bell Telephone Company in the USA offered users the possibility to use telephones from their own production for a cost of use, without to request payment of the value of these phones. This type of contract was called a lease.

Leasing is the method of financing that is achieved by transferring by the owner (lessor, capitalist, financier) the right of use over a good, to another party called user (lessee, beneficiary) at his request and who, at the end of the leasing period, may choose, whether or not, to buy the property or extend the lease.

Agriculture is part of the Romanian tradition and has been one of the most important pillars of the Romanian economy, contributing to the formation of the Gross Domestic Product, being the sector with the most dynamic development in Romania, in recent years. The areas of agriculture bring different contributions to the Romanian economy, depending on the areas of the country. It is an industry in the countries of the European Union, due to the fact that it has been supported to achieve performance and stability. The predominant landforms are the plains and the arable land is the safest way to cultivate. Romania has so far, about 15 million hectares of agricultural land, distributed as follows:

¹ University "Dunarea de Jos" din Galati, Romania, gabriellaliliana29@yahoo.com

² University "Dunarea de Jos" din Galati, Romania, florentina.moisescu@ugal.ro

- 9.3 million hectares of arable land;
- 0.6 million hectares of vineyards and orchards;
- 4.8 million hectares of meadows.

The main process that led to the development of Romanian agriculture was the decollectivization, reorganization and privatization of state-owned enterprises and since then agriculture has focused on private development. The land is fertile due to domestic fertilizer production of chemical plants and irrigation plays a key role in increasing agricultural production.

Sustainable development is expressed through all forms and methods of social and economic development that ensure the balance between the economic, social and ecological aspects and of course, natural capital. The best-known definition of sustainable development is that provided by the United Nations World Environment and Development Commission in its report "Our Common Future" and which reads: "Sustainable development is development that seeks to meet the needs of the present, without compromising future generations, to meet their own needs".

Sustainability is the acquisition of an activity to be carried out without depleting the available natural resources and without destroying the environment so that future generations can meet their various needs. In other words, sustainability refers to the fact that we must protect the nature around us from destruction and damage that will also affect us.

The paper aims to discuss the link that agriculture has and how to finance leasing, to ensure a sustainable and persistent development of agriculture in Romania. In this paper, leasing was analyzed as a way of financing and data on agriculture and leasing in Romania, but also in other countries were compared.

The study was limited due to the lack of information and their centralization, making it impossible to analyze the two branches of the study. The information found on the Internet, provided by the Ministry of Agriculture and Rural Development, was not enough to perform the desired analysis.

Review of the specialized literature

The work of professors Bolea and Cosma, entitled *Leasing as a modern form of business financing* (2015) presents the fundamentals of the leasing concept, by highlighting the elements of leasing, its types and how leasing helps to develop the global market. This paper first addresses the evolution of leasing over time, and then the importance of leasing in financing the activity of companies, as well as increasing the value of leasing services worldwide.

Professor Kovalenko's *The History of Leasing* (2018) presents the history of leasing since antiquity, the legal regulations adopted by some countries in the world on leasing, which focused on Russia and makes a brief presentation of aircraft leasing in Russia. As transport is still an important topic today, Russia has given special importance to air transport, in order to maximize the market for air transport and air operations, by increasing flight safety.

Professors Ionașcu in the work *Business Models for Circular Economy and Sustainable Development: the Case of Lease Transactions* (2018), highlight leasing as a business that brings numerous contributions to the sustainable development of the economy. Among the numerous benefits that leasing has in Romanian companies, is the increase of their performances, firstly in the form of financial-accounting indicators and secondly in terms of investors. The first part of this article presents information about the circular economy and the characteristics of leasing in this type of economy and in the second part are presented the results reached by the two professors after conducting the study on various companies in Romania listed at scholarship.

Collins and Junghans showed how companies adopt and implement sustainable facility management and green leases in the strategic approach to sustainability. These two elements are analyzed together because they have many benefits for the society in which they are implemented. These teachers emphasize that a key component is the interaction between the core business processes and the adoption of a sustainable approach.

According to Kiritsa, Romanov and Kushnaryona, the agricultural machinery market has declined significantly in Russia. As an effective support in this issue was leasing because it is one of the most efficient methods of purchasing or renting agricultural equipment for small and medium enterprises.

Gerasimova (2018) elaborates a paper that focuses on leasing. Acespa says that leasing is seen as an effective means of supporting business and is a powerful tool for sustainable development, as well as a way to earn income from loans and renew the capital of the companies that use it. It also highlights the relationships between external and internal economic factors, between financial and operational forms of leasing, between the value of leasing institutions and their contribution to the revival of the economy.

In the paper *The Leasing System in Agriculture*, Dospitescu highlights the difficult access that the farmer has to the financial resources offered by the capital markets. Difficult access has led to the emergence of peculiarities in the financing of production, processing and marketing and in consumer activities, with leasing offering farmers an alternative way of financing the equipment needed in agricultural activities.

Popa presents in his paper *Problems and ways of financial assistance of small and medium enterprises in the agricultural sector* the fact that agriculture is a basic branch of the economy of the Republic of Moldova and their sources of financing and adoption are easy to access. This fact has led to an increase in the number of economic agents with activities in agriculture, in the Republic of Moldova.

Research methodology

In order to understand the need for financing in the agricultural field, this study was carried out to help potential users in making a decision on how to finance through leasing. Progress in agriculture depends directly on the degree and quality of the development of agricultural equipment and facilities that ensure the mechanization of both the main and ancillary operations of agriculture.

The study is based on data on production obtained, cultivated area and the evolution of the number of agricultural equipment, the data being provided by the official websites of the Government of Romania, the Republic of Moldova and Russia. The two countries analyzed for comparison were chosen according to area, population, agricultural potential and especially economic development. The multitude of information that helped to create this article was gathered from the specialized articles found through the Google Academic search engine. The purpose of this article is to describe leasing as a way of financing, in order to purchase equipment and facilities necessary for the sustainable development of Romanian agriculture.

In the first stage of the study, leasing was analyzed as a way of financing in agriculture, where the bases of the leasing concept were laid and where the main advantages it has in agriculture were highlighted. In the second stage was analyzed the leasing and agriculture in the Krasnoyarsk region of Russia which materialized by analyzing the data provided by the official website of the Russian Government, was analyzed leasing and agriculture in the Republic of Moldova by analyzing the production obtained in 2015 -2019. Also at this stage was analyzed the Romanian agriculture from 2015-2019, respectively the cultivated area and the production obtained which led to the implementation by the Government of the SME Leasing program of equipment and machinery to support farmers to

increase the degree they has agriculture in the Romanian economy. In the third stage, the Government's SME Leasing program of equipment and machinery was discussed and in the last stage, the "green" leasing was discussed because it is the one that comes in support of all farmers but also of humanity.

Results and Discussions

The scientific paper focuses on the analysis and evaluation of the relationship between leasing and agriculture, highlighting the main types of leasing used in agriculture, the main advantages that leasing brings to farmers.

➤ Financing through Leasing

Leasing satisfies the need for funds for investments in an effective short time of economic agents. This is a financial instrument that is much easier for businesses to access than bank loans, which has the advantage of being much more flexible. Most companies choose to finance their investments through leases because of this significant advantage.

The main types of leasing used mainly in agriculture are the following:

- Financial leasing: is the operation that makes the transfer, for the most part, of all the advantages and risks related to the property right over a good. It conveys all the benefits and risks related to the property right to the user who at the end of the lease remains with the property;
- Operational leasing: it is the operation of consecutive rental of a good and approves the use of a good but does not transfer its ownership. This type of contract can be terminated at any time, the user only has to return the good;
- Internal leasing: when the parties are from the same country;
- External leasing: when the parties are from two different countries.

Leasing in agriculture has a great advantage because leasing rates can be set seasonally with payment at or after harvest, respectively at the end of August and November.

In the agricultural field, a positive influence on leasing financing is the high demand and supply of agricultural equipment and machinery, due to the high agricultural potential in all areas of the country. The legislative framework on agricultural insurance in Romania adopted Law no. 381/2002 on granting compensation in case of natural disasters in agriculture and Governmental Emergency Ordinance no. 157/2002 to supplement the Leasing Law no. 16/1994, as well as rural financing projects granted by The European Union. All this has begun to stimulate in the short and medium term the capitalization of the rural sector and the growing interest of banks and other financial institutions to engage in the provision of services to this sector.

Leasing in Romania has traditionally been used to acquire the right to use land for grazing or crop production and then farmers went to rent agricultural equipment. Leasing of agricultural equipment and machinery is used for renting and purchasing tractors and its aggregates, combines, irrigation systems, silos and many other agricultural equipment.

In Romania, an agricultural machine is used far above the European average and especially far above developed countries such as the Netherlands and Germany. Excessive use of agricultural machinery is mainly due to lack of funding and investment in agriculture.

Leasing in agriculture has many advantages, and among them are:

- Protection of equity - the user will use an asset for the purchase of which a large part of the liquidity should have been immobilized, keeping his free capital for other needs and can contract a bank loan in parallel;
- Deductibility of leasing payments (depreciation, interest, insurance, exchange rate differences, in the case of financial leasing, and in the case of operational leasing the entire leasing and insurance rate);

- The possibility of an exact calculation and planning based on constant leasing rates throughout the lease;
- The user benefits from free specialized consultancy regarding the choice of the good or aspects related to the leasing legislation, insurance services, as well as offering complete services regarding the translation of documents, RAR operations, customs entry / exit operations, registration, deregistration;
- The costs of insuring the good that is the object of a leasing contract are lower than in the case of a full payment, as a result of the existing collaboration protocols between the leasing and the insurance companies;
- Procedures for obtaining financing in a leasing system are often much simpler and more accessible to a much wider category of customers, than in the case of applying for a bank loan.

➤ **Agriculture and leasing in the Krasnoyarsk region of Russia**

In Russia, the concept of sustainability innovates several changes in all fields but especially in agriculture.

In the Krasnoyarsk region of Russia, agricultural machinery fluctuated in Table 1.

Table 1: Agricultural machinery from the Krasnoyarsk region

	2014	2015	2016	2017	2018
Tractors	6.809	6.517	5.938	5.599	5.269
Plows	1.583	1.469	1.347	1.289	1.265
Combine harvester	3.143	2.960	2.766	2.614	2.459
Fertilizer spreaders	260	258	265	237	231
TOTAL	11.795	11.204	10.316	9.739	9.224

Source: <http://gov.ru>

Due to the decrease in the number of agricultural machinery, the load of arable land on a single tractor is increasing, which leads to their accelerated depreciation. The existence of a small number of agricultural machinery hinders the development of agriculture with an impact on productivity. The availability of new agricultural equipment reduces additional production costs. The use of leasing in modern conditions allows to solve the problems of farmers regarding agricultural equipment as well as their maintenance and repairs.

In order to increase productivity in this region, agricultural holdings receive state support in the form of:

- cost compensations for the purchase of seeds registered in the state register;
- unrelated assistance;
- compensation of parts of the cost for investments.

The lease expands the access of agricultural producers to accelerated rates of material and technical renewal, accompanied by the equipment service. The supply of agricultural equipment through leasing has been noted as one of the most efficient ways to finance the agricultural sector, so the state has decided to provide many benefits to those who will use as a way of financing, leasing.

Leasing financing of agricultural equipment led in the first phase to the growth of the economy in that region of Russia, in the second phase to the increase of productivity in agriculture and in the third phase to the increase of the number of agricultural equipment in that area.

➤ **Agriculture and leasing in the Republic of Moldova**

Agriculture is an important sector of the economy of the Republic of Moldova and during the last 10 years there has been an increase in the number of economic agents with agricultural activity. The main financing modalities in the Republic of Moldova are represented by:

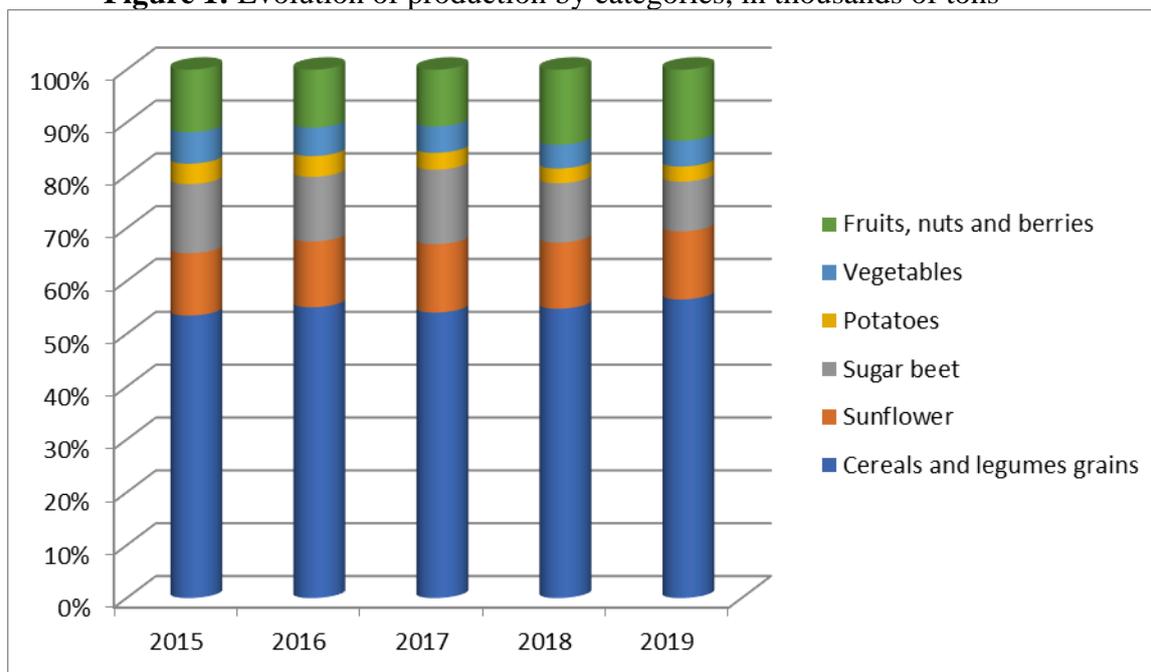
- Personal income represented by own sources, profit;
- Bank credits;
- Bonded loans;
- Leasing.

The state encourages the use of leasing as a way of financing in the Republic of Moldova because it grants a series of fiscal facilities, deducting depreciation expenses as well as interest expenses.

According to the National Development Strategy "Moldova 2020", the main priority of the Government is to maintain a decent living, to employ the existing workforce in all areas, but especially in agriculture and improving the quality of life in rural areas. A significant role in this case is to strengthen the economy in rural areas by developing, and as in rural areas, agriculture is a key pillar of development, the Government supports farmers in rural areas, by encouraging them to purchase agricultural equipment through through leasing.

Leasing has helped to develop the agricultural sector in the Republic of Moldova by increasing agricultural production and agricultural equipment. Therefore, Figure 1 shows the evolution of production recorded in the period 2010-2015.

Figure 1: Evolution of production by categories, in thousands of tons



Source: <https://statistica.gov.md>

Analyzing the structure of vegetable production in Figure 1, it can be seen that it oscillates over the analyzed period, this oscillation being the result of the uneven evolution of cereal and legume crops grains, fruits, vegetables, potatoes, sugar beet and sunflower. Raising awareness of these crops on climatic conditions urges farmers to purchase various agricultural equipment through leasing to increase the protection of these crops.

➤ **Analysis of agriculture in Romania during 2015-2019 and consequences**

Romania's agriculture in the analyzed period registered the values expressed in Table 2 which express the cultivated area and Table 3 which express the Production obtained.

Table 2: Area cultivated in thousands of hectares in Romania during 2015-2019

	2015	2016	2017	2018	2019
Grain cereals	5.319	5.487	5.192	5.257	5.431
Leguminous grains	45	59	119	133	119
Oily plants	1.518	1.630	1.766	1.815	1.877
Potatoes	189	182	167	169	170
Vegetables	240	228	225	226	224
TOTAL	7.311	7.586	7.469	7.600	7.821

Source: <https://insse.ro/cms/>

Table 2 indicates that the area cultivated on the territory of Romania registered numerous fluctuations during the years 2015-2019. The main vegetated categories cultivated in Romania are highlighted and analyzed in the table, having a significant share in agriculture. Cereals for grains and vegetables registered the largest cultivated area in 2016, legumes in 2018, oily plates in 2019 and potatoes in 2015, this being the most distant year under analysis.

Table 3: Total production in thousands of tons in Romania during 2015-2019

	2015	2016	2017	2018	2019
Grain cereals	19.040	21.765	27.139	31.553	29.504
Leguminous grains	76	99	302	191	244
Oily plants	2.987	3.597	4.986	5.154	4.682
Potatoes	2.779	2.690	3.117	3.023	2.715
Vegetables	3.640	3.358	3.638	3.797	3.496
TOTAL	27.552	32.509	39.182	43.718	40.641

Source: <https://insse.ro/cms/>

Table 3 shows the production obtained from the cultivation of the main plant categories. In 2019, lower values were registered compared to the previous year. Although the cultivated area in 2019 was the largest in the analyzed time interval, the production obtained was lower than the previous year when the cultivated area was 221 thousand hectares lower but the production was 3,077 thousand tons higher.

These low values obtained in 2019 led to the implementation of a government support program called SME Leasing of equipment and machinery. Through this program, the authorities aim to increase the cultivated areas, of the production and in particular of the increase of the financing of the type of financial leasing, succeeding through this the acquisition of equipment and machinery necessary for agriculture.

➤ **Government program SME Leasing equipment and machinery**

The SME Leasing program is a government program through which the Ministry of Public Finance aims to stimulate access to financial leasing financing in order to purchase new or second-hand assets for companies, especially those that need technology transfer in the processes of production especially in the agricultural sector. Guarantees will be granted by FNGCMM and will be guaranteed by the state, through the Ministry of Public Finance, in a maximum of 80% of the value of financing for the purchase of IT equipment and information technology and in a maximum of 60 % of the amount of financing for the purchase of technological machinery and equipment, vehicles for the transport of goods and persons used

for commercial purposes in a financial leasing operation. Small and medium-sized enterprises as well as affiliated enterprises are eligible for guarantees under the program.

The maximum value of the financing is 5,000,000.00 lei, the period and the way of reimbursing the financing is established by the financiers, according to their provisions. The maximum lease term is 6 years, with a warranty period of 3 to 12 months. A significant advantage of this government program is the advance that the user of the program can pay, which is between 0% and 20% of the value of the good.

➤ **Leasing in the sustainable and sustainable development of agriculture**

As sustainability and persistency are an extremely important issue for all countries, we are beginning to use in agriculture equipment that protects as much as possible the environment around us to keep it clean and prosperous for future generations. Leasing supports this desire and helps those interested in purchasing equipment that does not pollute and protect the environment to some extent.

With the move towards a "green" focus, infrastructure and technology have the impetus even the obligation to adapt to societal trends and leasing is not immune to this change. More and more companies are adopting and implementing sustainable management and green leasing contracts. Approaching sustainable management and leasing together is due to the qualities they fulfill together. "Green" leasing can be considered an approach that has a positive impact on people and technical systems.

The concept of sustainability innovates several changes of new business models such as changing the platform (from lead to platform), changing numbers (from physical to digital), changing services (from products to services), exponential change (from linear to exponential change), the change of stakeholders (from one shareholder to another) and these changes are adopted to improve the quality of life and sustainability of the planet. The product-service system is a business model that generates solutions to maximize sustainability and provides that product leasing and sales of remanufactured products must deliberate in the product design process. This model makes leasing an attractive choice for consumers through operational optimization.

Conclusions

Leasing is one of the most flexible forms of financing and is mainly used in financing the machinery and equipment of various companies, being a real help in support of companies that can not afford to purchase them through other methods. It has become increasingly attractive, especially for the fact that it deals with expensive products or complex equipment.

Modern economic thinking in terms of sustainability is absolutely necessary in order to obtain profitable financial results at the level of any enterprise. In the Romanian agricultural system, which is insufficiently developed but which has an extraordinary development capacity, it must have financing resources to be taken to the western level of the European Union.

Following the analysis of the three countries, I can say that Russia is the best ranked country in terms of agriculture and the one that pays the most attention to this sector. Romania and the Republic of Moldova also give interest to this sector, but due to the fact that they use agricultural equipment and machinery excessively, the production is not in line with expectations. In both countries, leasing financing is beginning to thrive due to the programs implemented by the governments of each country.

The results show that in Romania, the Government wants to support small and medium enterprises in various spheres of the economy, which can obtain a maximum financing of 5 million lei and the leasing period being 6 years. This program aims to increase the number of agricultural equipment but also agricultural productivity, because this sector is of particular importance in increasing Romania's Gross Domestic Product.

Bibliography

1. Allen, D. W., & Lueck, D. (1992). Farmland leasing in modern agriculture. *Choices*, 7(316-2016-6783). <https://ideas.repec.org/a/ags/aaeach/131438.html>
2. Bolea, A., and Cosma, R., (2015). Leasing as a modern form of business financing. *Progress in Economic Science Nr. 2*, pp. 295-305. <https://www.semanticscholar.org/paper/Leasing-as-a-modern-form-of-business-financing-Cosma/2f9805a18166e035527e73c09042d807c8511229>
3. Collins, D., and Junghans, A. (2015). Sustainable facilities management and green leasing: The company strategic approach. *Procedia Economics and Finance*, 21, 128-136. <https://www.sciencedirect.com/science/article/pii/S2212567115001598>
4. Dospinescu, N. (2005). The Leasing System in Agriculture. Available at SSRN 905509. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=905509
5. Gerasimova, V. (2018). Role of leasing for sustainable development of the Russian economy. In *MATEC Web of Conferences* (Vol. 170, p. 01051). EDP Sciences. https://www.matec-conferences.org/articles/mateconf/abs/2018/29/mateconf_spbwosce2018_01051/mateconf_spbwosce2018_01051.html
6. Hallam, D. (2009). International investments in agricultural production. *Land grab*. <http://www.fao.org/fileadmin/templates/em2009/docs/Hallam.pdf>
7. Ionașcu, I., and Ionașcu, M., (2018). Business Models for Circular Economy and Sustainable Development: the Case of Lease Transaction. *Amfiteatru economic*, 20(48), pp. 356-372. https://www.amfiteatruconomic.ro/RevistaDetalii_RO.aspx?CodArticol=2724
8. Joksimović, M., Grujić, B., & Joksimović, D. (2018). Correlation and regression analysis of the impact of leasing on agricultural production in Republic of Serbia. *Економика пољопривреде*, 65(2). https://www.researchgate.net/publication/327195870_Correlation_and_regression_analysis_of_the_impact_of_leasing_on_agricultural_production_in_Republic_of_Serbia
9. Kiritsa, A. A., Romanov, A. N., and Kushnaryova, M. N. (2021, March). Leasing in agriculture of the Russian Federation: trends, development problems and ways to solve them. In *IOP Conference Series: Earth and Environmental Science* (Vol. 650, No. 1, p. 012032). IOP Publishing. <https://iopscience.iop.org/article/10.1088/1755-1315/650/1/012032/pdf>
10. Kovalenko, N., and Kovalenko, K., (2018). *The history of leasing contract*. *Revista QUID (Special Issue)*, pp. 159-165. <https://dialnet.unirioja.es/servlet/articulo?codigo=6724748>
11. Kuo, T. C., Chiu, M. C., Hsu, C. W., & Tseng, M. L. (2019). Supporting sustainable product service systems: a product selling and leasing design model. *Resources, Conservation and Recycling*, 146, 384-394. <https://www.sciencedirect.com/science/article/abs/pii/S0921344919301697>
12. Popa, A. (2016). Probleme și modalități de asistență financiară a întreprinderilor mici și mijlocii din sectorul agricol. *Buletinul științific al Universității de Stat "Bogdan Petriceicu Hasdeu" din Cahul, Seria "Științe economice"*, 16(2), 91-115. https://ibn.idsi.md/vizualizare_articol/52456
13. RUMANOVSKÁ, L. (2014). Evaluation of the impact of agricultural land lease relations in agricultural subjects in Slovakia. *Scientific Papers: Management, Economic Engineering in Agriculture & Rural Development*, 14(1). http://managementjournal.usamv.ro/pdf/vol4_1/Art54.pdf
14. Stanciu, M. A. (2016). Infografic: Daca vrei sa stii cum va evolua economia, priveste la piata de leasing. <https://www.wall-street.ro/articol/Economie/221014/Infografic-Daca-vrei-sa-stii-cum-va-evolua-economia-priveste-la-piata-de-leasing.html#gref>

15. AGRICOLE, F. Î. L. A. E. AGRICULTURAL EQUIPMENT LEASING FINANCING
FINANȚAREA ÎN LEASING A ECHIPAMENTELOR AGRICOLE V. MARCU, I. FRUJA.
<https://www.usab-tm.ro/utilizatori/management/file/cercetare/2011-2012/s3/finante41.pdf>
16. *** <https://mfinante.gov.ro>
17. *** <https://insse.ro>
18. *** <https://www.forbes.ro>
19. *** <https://statistica.gov.md>
20. *** <http://gov.ru>