# MICROFINANCE, FINANCIAL NETWORK AND GLOBALIZATION

Abstract: Microfinance is increasingly the most accessible form of financing for those in need of funding (over 95% of small and medium-sized firms at European level). Microfinance to reach direct beneficiaries must use financial networks. Network risk, (RRT), takes on concrete forms of action, manifestation, forms usually determined by network characteristics that are affected by decoupling, distortion, phasing out, distortion, debilitating the strength of a financial network feature. Obviously, these forms refer to the radiant impact of the institutional characteristic of the network, embodied in norms, bodies, rules, structures, etc. on the interactive features of the network. The institutional grid of the network is the force, the ability of the network's interactive feature to negatively influence the performance of the components. Based on these considerations, the global financial network risk must be assessed in the current context of the financial networking functionality challenges.

Key words: microfinance, financial network, currency and sustainability.

# 1. Introduction

Microfinance is especially, for rural areas, one of the research areas of great interest in contemporary society in Romania and in the world, both. Based on the theoretical and methodological approaches in the field and the more or less sustainable realities of the microfinance process, our research provides a perspective picture of this field. On the other hand, it is increasingly being debated by specialists and not only the problem of the impact of financing policies on the Romanian rural area, such as microfinance products and tools, aspects on which our research came to some conclusions that were presented in the paper. The approach of the thesis is based on personal professional experience in the economic financial field (we have experienced the phenomenon of microfinance with an effective and direct involvement in the process of financing the small rural entrepreneurs in Romania), but also based on extensive documentation (Manta, O. 2017). The complex relationship in which the network risk acts has on the performance, the goals, the functionalities and the potentialities of the network.

# 2. Methodology of scientific research

In order to underpin the research methodology, the classical observation and examination instruments, research methods based on the basic principles of scientific

<sup>&</sup>lt;sup>1</sup> PhD, "Victor Slăvescu" Centre for Financial and Monetary Research, Romanian Academy email:otilia.manta@icfm.ro; otilia.manta@gmail.com.

An. Inst. Cerc. Ec. "Gh. Zane", t. 27, Iași, 2018, p. 67-78

research, namely: "competence, objectivity, truth, methodical, demonstration, correlation, evaluation of results, utility and psychomoral" (Ristea and Franc, 2013). It will use procedures based on factual analysis, intensive documentation at the level of domestic and international literature, using the databases and the scientific material existing in the endowment of the libraries of specific institutes in Romania and internationally.

The methodology of the paper will have as direct instruments the collection of data and information from specialized literature and from existing practice in public and private institutions, but especially scientific articles published on specialized research networks (Research Gate, Academia.edu, etc.), articles published in different journals, relevant books in the field of reference, legislation, analyses and studies, official documents of various tax bodies, tax documents and interactive database of the National Bank of Romania, other relevant sources identified at the libraries: CCFM, Academia Romanian, INCE, IEN, BNR, National Library, INS, etc. Moreover, in the methodology we will analyse the documents using the comparative, analytical, descriptive method, no participative and participatory observation, and the use of a set of informational sources, the collection of financial data in the established databases. Also, the paper will be based on annual reports, publications, consolidated statistical data provided by the National Bank of Romania, the European Central Bank (ECB), the International Settlement Bank (BRI), the European Commission, OECD, published annually, data to be processed in order to be able to provide a general and analytical picture of the most important changes taking place in the European Union as a whole, but also globally – considered representative for the understanding of the phenomena studied, and especially in Romania.

Information support for research will be provided by monographs, books, scientific papers, materials of scientific conferences, the balance sheets of SMEs in 2008–2017, as well as other materials, which are presented in scientific papers and publications on the official pages of national and international research institutes, international financial institutions (research centres), etc.

## 3. Implementing the results

The theoretical approaches, the methodological elaborations and the practical recommendations elucidated in the thesis were presented in the scientific papers presented in specialized journals reviewed by the Romanian Academy, as well as in the seminars, webinars, national and international conferences, at the round tables and by publishing of more than 30 scientific papers published by ISI and / or BDI, as co-author, project manager and project coordinator in two EU projects, associate researcher and scientific researcher as member in 5 research projects of the Romanian Academy.

The doctoral thesis (2017) begins with defining the concept of microfinance in different concepts, the epistemological aspects being correlated with the theoretical approaches to the microfinance process, the ultimate goal being to capture the current microfinance trends as a concept and functioning mechanism. Then a separate chapter is dedicated to the impact of funding policies on Romanian rural space. In this regard, we addressed a number of issues related to agricultural credit, the analysis of the SME financing market in rural areas, as well as the strategic perspectives on social and financial inclusion. Further, in chapter three, we tried to capture the main microfinance schemes currently in use worldwide. Relevant examples of how microfinance implementation and action is being implemented in different regions of the globe (Africa, the Middle East, Asia, North America, South America, Australia and, of course, Europe) are. In the chapter dedicated to microfinance products and tools, the classic ones and also, the modern ones, are presented (FinTech Digital Financial Technologies). Here are also a series of basic microfinance services payments and transfers of funds. Applicative research on microfinance in rural areas is presented separately by looking at some basic directions – the methodology of research on concepts and applications of microfinance in rural areas; data analysis and hypothesis testing. To these are added the author's conclusions and considerations regarding the results of the research. Last, the final conclusions and contribution of the author and the managerial implications of the thesis are presented (Manta, O. 2017).

In the microfinance sector the first steps is to identify the real financial network for delivery the microfinance products direct to the people which need the finance.

The forms of network risk are as follows:

- The credibility risk is the essential form of risk of the financial network, mitigating or distorting the trust of the economic subjects in the currency, in the financial instruments, the financial-monetary institutions, due to the malfunctions, directly or indirectly induced by contagion, with a temporal lag, all the specific risks and, first of all, the risk of depreciation of the currency.

– Financial networks are irreducible for purely economic reasoning cantered on profit-oriented economic interest, monetary transactions, operations and financial flows, based on the trust of entities, economic subjects in the financial network, the transaction network, and the fiduciary dimension being vital to the reproducibility of networks and for their continuity over time. Trust is an integral part of maintaining interconnections and interactive financial flows, especially taking into account the uncertainty and complexity of transactions.

- Winning economic rationality does not cover the space of confidence in the currency, depending on different factors, economic rationality depending on individual, selfish, competing and confronted interests on the market, while trust is conditioned by cohabitation, social, political, cultural, but also economic, trusting reciprocity, while economic rationality involves exclusion through competition (even if the market harmonizes gains through interests).

- Trust is an essential property of the coin, an abstract feature of money in general, which does not imply the stability and validity of the concrete forms of the

currency, because trust in the stability and validity of a monetary form, a financial instrument, means trust in institutions and rules, and rules directly responsible for the administration of this form of currency. In this respect, the nature of the risks involved in financial transactions, in interactive flows, reflects their unique character in the modern world, namely that they are generated by man-made institutions.

It can be argued that the credibility risk is not associated with trust in money as a social institution, but with confidence in social institutions, i.e. regulations and organizations, which create and administer specific monetary forms, financial instruments traded on the markets.

The risk of credibility in the financial system is determined by economic, but especially extra-economic conditions, the placement of monetary forms in an environment centred on economic rationality, the dependence of financial transactions, the interactivity of the financial network of interests and economic gain distorts and vices the functions of the currency, its transitive potential, the goals of the network, assuring the concrete forms of the coin of improper, adverse and unfavourable and functionalities. In this respect, speculative or derivative financial forms, as quaternary, forward-looking currencies, are at the same time extreme forms of risk credibility, generating risk, covering it.

Vulnerability risk is a generic risk of the financial network, caused by the inadequate, institutionally caused, flow characteristics and financial network, such as reliability, complexity, integrity, and intensity, connectivity, affecting the network as a whole, but differentiated on elements, interconnections and interactions. Vulnerability expresses the debilitating of the transitive potential of the interactive flows of the network, favouring the emergence of specific risks, such as exchange rate risk, monetary depreciation, and interest rate risk, market risk, especially through the inadequacy channel and through inactivation.

The organizational inconsistency of the financial network, the inconsistency of the financial instruments, the forms of currency in the financial asset hypothesis, the inadequacy of the financial operations, the temporal or dimensional incongruity of the sources and the destinations of the interactive flows are causal institutional factors of the vulnerability of the network, perceived by network participants by diminishing the reliability of flows that may generate liquidity or solvency risk through volatility of asset prices through the juncture of some network nodes, i.e. financial institutions or markets, which may ultimately lead to bankruptcy risk and so on Institutional causes of monetary network vulnerability may be: a compositional incompleteness of entities, for example the lack of necessary entities; o insufficient connections, cumulative or distributive nodes; o lack of functional loop connectors such as guarantee bodies, trade effects, consultancy entities, and network loops to ensure re-circulation of the inactive, temporary pending currency, such as the locked currency; the degradation of operational synapses, such as the transformation of deposits, due to the interactive gap between collection and placement or currency convertibility due to the institutional irrelevance of monetary forms, such as reserves, surpluses, placements.

The risk of vulnerability is therefore, above all, a risk of institutionalization of the financial network and derives from the inadequacy of the network to environmental conditions, to its requirements and needs, and in this respect the direct effect of this network risk, the depreciation of the currency in its form transactional, interactive, currency risk, is associated with the degradation of these conditions, with the relation between the internal and the external environment.

- The risk of de-synchronization is a risk of the flows, of their interconnection in the network, affecting the interactivity of the network, i.e. its essence, being formally generated by the institutional regulation of the network, and thus by the way of network implementation, and functionally by the relation between tasks, i.e. the activities, responsibilities and competencies of the constituent entities. Desynchronization refers to the occurrence of some disagreements, of any kind, between network flows, addressing the following aspects: gaps, gaps, defects and incompatibilities.

– Time spans between cash inflows and outflows, between the formation of monetary resources, liquidity, and their use, transforming them into placements, increasing the stagnation of the coin as an inactive currency. If some gaps are necessary for financial transactions and interactions, most are inertial, institutionally determined, often even regulatory, inducing lasting differences, affecting the fluidity of money, circulation, and currency transformation, usually leading to liquidity and capital risks.

Dimensional dimensions related to the capacity and length of flows, but also to the extensibility and intensity of the financial network. For example, if there is a discrepancy between the capacity and the length of the collection flows and the placements, the risk of de-synchronization may generate both risk and liquidity risks, and the disconnection also occurs in the case of the gap between network extensiveness and insensitivity, which will primarily affect the effectiveness of the network, causing a risk of financial asymmetry, concentration, associated with the insolvency risk of some financial entities that, through contagion, can affect the entire network.

– Flow deficiencies due to the speed of flow instruments and network velocity, these streams often resulting in bottlenecks, being partly responsible for the risk of network agglutination, affecting network interactivity, causing liquidity, rate, and monetary depreciation, currency risk.

- Instrumental incompatibilities, manifested by the inadequacy of financial instruments to achieve certain goals or functionalities of the network, their non-adaptation to transited currency aggregates (blocked currency, reserves, savings, equity, speculative liquidity, etc.), or, generally, insufficient harmonization the supply of financial and monetary instruments (checks, cash, cards, accounts, etc.) and the demand, and especially potential, demand, which expresses the need for economics of tools, perhaps not yet operational, and why not yet unthinkable.

The risk of de-synchronization induces a negative resonance in the network, in the case of an increased de-synchronization, the network may enter into "trepidation", the generic expression of this situation, the risk of vibration, negative resonance being the fluctuation, the agitation of the exchange rate, the price, the purchasing power of the coin on a trend of chronic depreciation.

The institutional causes of this risk are connected and often dependent on economic, social, political causes (unless we consider monetary policy itself an institution), but it is obvious that the way of building its financial network, its architecture, its dimensions and institutional adequacy, contributes significantly to the emergence and maintenance of this risk.

– The agglomeration, agglutination risk, correlated with the two previous risks, is manifested through the abundance, segregation and concentration of currency forms and flow financial instruments in certain areas of the network, through regionalization, polarization and conjecturing, phenomena with various aetiologies, but highlighting the institutional inadequacy of the network, creating favourable conditions, especially through the incapacity channel, for the emergence of risk rates, insolvency and, obviously, market risks, the price of financial assets, of the coin.

Very often, this network risk is associated with insufficient networking of specific elements of the network, to provide certain services needed for the markets and to contribute to the consolidation of its transparent automata, such as: a continuous counting of network flows, highlighting crowded and relatively free routes, for example, the discrepancy between the interbank and the financial or pay-as-you-go, this counting being a potential selective and reorienting role; a functional and operational adaptation of flows to the concrete requirements of interactivity, by setting up network adapters, analogue clearing houses, transforming financial assets and instruments, and forms of currency in line with market requirements, making these adapters an integral part of financial markets and monetary ones, such adapters being able to target exchange rate consolidation, liquidity fluidization (factorial adapters), rate compensation (distributive adapters), etc., taking over some of the current market dysfunctions, such as speculative ones, which distort some of these adaptation attributes, and relaying them to the market, integrating them, strengthening its institutional network automation; an instrumental conversion, trying to achieve this conversion interactivity, the market, as it is conceived and instituted, is not only conversational but marginal or improper, I would say, forcing a little the institutional potential of the network. A conversion market, such as the derivatives market, could be constitutively and institutionally made, in fact, anticipating and conditional this conversion, but often in a speculative environment, denaturation the functions of the currency, of monetary forms.

Managing this network risk is principally a matter of institutionalization and functionally a matter of evaluation and supervision because the flexibility of the currency, its fairness of freedom, should also be found in its capitalized, financially instrumental forms, between currency confidence, and economic reasoning, which usually regulates fragmentarily, segregating capital flows, money saved, contradictions, crisis-generating confrontations, which partly reflects the existence of this agglomeration risk with speculative openings.

The risk of detachment and polarization is the specific network risk that suffers from three institutional diseases:

 ignorance in the sense of disregarding or insufficient consideration of the environment, due to the institutional endowment, which gives it a certain form of knowledge and understanding;

- vanity, not in the anthropomorphic sense, determined primarily by the approach of currency, of monetary forms, in terms of earnings-centred economic reasoning, financial entities considering the currency capitalized as a generator of power and not as a binder between the network and the environment, bidders and coin applicants, the bank currency, and its financial form, which produces wealth, denoting the currency's functions in a great deal, perhaps by distorting them, to authentic, trust-based forms of currency; obviously, vanity is reactive, not adaptive, and is so proven by financial crises, often induced by financial entities, banking in the socio-economic ensemble.

In the sense of the financial sector, especially the banking sector, being hardly accessible to the uninitiated, the disease being landless, from time immemorial, and partly with constitutive justifications and, we could say, ontological. The coin being something very sensitive and omniscient has been told the blood of society, but it has now become a sort of pathology of appearances, a pathology commanded, authentic, original esotericism, original, disappearing, remaining an esotericism of complications, often unnecessarily functional diversions mimetic esotericism, but the more sickly and contagious.

The risk of posting is manifested by the detachment of the financial network from the socio-economic environment, its real markets, including the health, culture, education, financial network, and sometimes the specific evolution of these human domains, how to build up the guiding principles of its configuration and architecture, so that posting induces specific risks in the financial network, such as rate and rate, volatility and real non-speculative-arbitrary overlaps, generating fierce crises at the local level, regional, hardly absorbed with losses and environmental costs, but also liquidity risks, finalized by bankruptcies of the banking entities as well as non-financial ones.

The polarization risk highlights the network's tendency to create concentrative poles, financial centres, officially represented by the Central Bank, which, beyond the coordination and regulatory attributes, becomes a market operator in the name of monetary policy, conferring confidence in the currency, in its purchasing power, but also in operative financial centres that concentrate with money, the financial instruments, the power to influence, to intervene, to sometimes unbalance the markets in the "desire" to balance them according to already esoteric goals, or at least selectively beneficial. Polarization is a phenomenon common to all networks, from mineral, natural to neural and spiritual, but the polarizing institutionalization of the financial network can have perverse, sometimes unpredictable effects, polarization contributing to accentuating network risks, financial network specificities, to the extent in which polarization does not serve the network, the currency, the trust in the currency, exacerbating, for example, the gain orientation, according to the economic reasoning.

A significant effect of postponement and polarization risk, a potential and a real effect, is generating specific devastating risks is the unparalleled expansion of the value of financial flows compared to real flows, with most of the financial flows milling down the currencies, obviously for earnings, for the transfer, rarely converted into real, consuming or investment assets.

The five types of network hazards developed above do not cover the whole range of risk possibilities intrinsic to the financial network, highlighting only their existence, their specificity and relevance in the monetary space as well as their institutional determinant etiologic. At the same time, the above approach wanted to reveal that the credibility risk is paramount, being the generic network risk, the placement of its currency, its forms and instruments, in a space dominated by economic reasoning, centred on interest and gain, credibility in currency, the ability of the coin to perform its original functions.

# 4. Final conclusions and contribution of the author

In the actual economic and social context, which is extremely complex and dynamic, which decisively influences the good functioning of the companies, the research carried out puts into question one of their most pressing problems, namely the microfinancing of their own businesses. Following the undertaken studies, the main conclusions and proposals are synthesized as follows:

a. The stage of development and the complexity of the global financial structure strongly influence the financial management's variables of action, the terms of their specific problems, and the nature of the solutions offered, in particular; More specifically from financing to gender, such as microfinance;

b. Each type of financial environment delimits the space targeted by the entrepreneur's financial management (SME or micro-enterprise), determining its objectives, issues and means of action;

c. Capital analysis in order to "steer" the microfinance policy towards optimal and cheaper sources of capital that contribute to maximizing the firm's market value and to the best interests of the parties involved in its activity or in the needs of the direct beneficiaries;

d. The company's financial structure should be one of the areas of applicability of optimization, as its components, being variable, can be combined to maximize the value of the firm while maximizing the cost of capital (human, material and financial); e. The premises of optimal microfinance structure are based on: knowledge of the microfinance needs of SME or micro-enterprises; knowledge of microfinance sources and their weight in meeting the microfinance needs of the company; knowledge of the costs of microfinance sources; knowledge of the financial environment at macroeconomic level and the financial policies promoted in a given period; knowledge of the behaviour of market players and their position on risk; knowledge of the psychological effects of indebtedness, because the financial structure of the small entrepreneur highlights the attitude of financial decision makers towards theft.

f. If in theory it is possible to achieve an optimal microfinance structure, in practice, we appreciate that this objective is difficult to meet due to the quantification of the various variables involved in the medium and long term microfinance decision;

g. In fact there are no free financial resources, which is why a good knowledge of capital cost is a necessity by financial managers (even grants for micro-enterprises are costly);

h. In adopting microfinance decisions, firms must have rigorous criteria that allow them to choose and combine these resources, and the cost of microfinance is the main criterion in choosing funding resources, for Romanian companies, even in times of economic crisis, exogenous microfinance through bank microcredit is the main solution to cover the microfinance needs of both current activity and its own development projects;

i. To improve the microfinance business of micro-credit banking products we propose a series of measures such as: eliminating the formal character of the preliminary discussions and advising microfinance support services of the representatives of the companies on the specifics of the micro-credit activity, including for the correct and complete drawing up of the documentation necessary for obtaining the microcredit; shorten the time for checking and analysing the documents requested by the bank, and in the case of non-acceptance of the microcredit request, to give them as quickly (2-3 days) the reasons and the indicators that led to this decision; companies should be given the necessary conditions by means of current regulations in order to be able effectively to negotiate with banks the conditions for microcredit (the microcredit volume, lending period, interest rate, grace period, etc.); the reimbursement schedule is to be drawn up according to the cash flow of the small entrepreneur and the specific nature of his activity (especially in the field of agriculture, the reimbursement should be according to the harvesting campaign) and the monthly repayment term is not a fixed date, but a reimbursement period (for example between 25-30 of the month to avoid additional costs or penalties due to non-payment on that day); the size of the micro-guarantees should be set according to the activity carried out and the nature of the microcredit (for example, in the case of investments in tangible assets, the guarantees can be created, on the one hand, from already existing assets

in the firm and, on the other, purchased assets); adapting the size and evolution of interest and commissions to the level and real market trend;

j. Global and regional micro-insurance trends in the rural environment are favourable both at global and European level;

k. In Romania, the micro-insurance market is in a continuous development, but it is currently quite small, both in terms of volume of turnover and in terms of companies specialized in providing this type of financial service;

l. The evolution of the Romanian market in recent years demonstrates that micro-insurance is a useful tool for microfinance and financial management of companies, both in times of economic growth and economic crisis, but especially in the current situation of global climate changes;

m. For the dynamic trend of the micro-insurance business on the Romanian market, I proposed the following measures: regulation of the organization and functioning of insurance companies aimed at micro-insurance for agriculture and rural development, as well as the criteria to be met for their establishment; stimulating the establishment of specialized companies in micro-insurance operations, through financial and fiscal regulations, this will increase the competition and, implicitly, the quality of the offered services; simplification of the procedure for granting microfinance by commercial banks by diminishing the number of documents necessary for drawing up the microfinance file and concluding the micro-insurance contract; reducing the time needed to analyse the documents submitted by the micro-insurance customers so that they can quickly dispose of the money resources needed to finance the current activities, especially in the case of major force phenomena (Climate phenomena impacting on crops); strengthening the promotion and consultancy activities of commercial banks and IFN's as well as specialized microfinance institutions by presenting personalized financial schemes specific to each agricultural company according to its field of action; promotion of microinsurance with priority and its support through governmental means and the National Bank of Romania in order to ensure the financial resources necessary for economic growth and, implicitly, for economic sustainable development;

n. As far as the micro-guarantee is concerned, lately it has grown considerably, ranked second in the volume of guarantees granted to SMEs;

o. Micro-guarantee in economic crisis situations is an important source of attraction of money, especially for small and medium-sized companies, which have multiple possibilities to develop their own businesses. This is also the main reason why the European Commission has created the EaSi Microfinance Facility with a direct focus on micro-guarantee.

We appreciate that the analysis of the microfinance needs at the level of the companies according to the complexity of the activities carried out must be achieved by an optimal combination of the presented microfinance sources. Also the financial network represents the important role in the delivery of the microfinancial products for rural area. In this case, it is recommended to use short-term microcredit combined

with micro-guarantee and micro-insurance, i.e. medium- and long-term microcredit combined with other microfinance products such as microleasing. (Manta, O. 2017)

The concept of national microfinance program on entrepreneurship incentives in rural areas (PNMSAR) proposed in the doctoral thesis is in line with the European Union's financing instruments (EaSi Program) and other international financial instruments for microfinance aimed at measures to develop the market for microfinance and support services. Romania has a valuable and varied potential for microfinance and support services which provide resources for new microfinance institutions and to provide the opportunity to develop this new sector of activity with significant benefits for the country's economy.

Moreover, the Romanian rural environment, as we have shown in the thesis, has a specificity from the point of view of the organization of agricultural holdings (most of them are rural agricultural households that can be financially supported to become integrated family farms in a fiscal point of view), as well as the current situation of SME's and micro-enterprises in rural areas.

The Romanian offer in the field of microfinance services for the rural area is now customized by:

a) the initiation of specialized microfinance institutions (according to the proposed model);

b) integration of microfinance services into the life of rural communities and rapid adaptation of funding to the many needs of small entrepreneurs operating in rural areas;

c) a diversified and integrated number of projects, as well as a large amount of sources of funding through community and government funds.

Starting from the realistic analysis of the offer of microfinance services in Romania, I came to the conclusion that the investments in the rural environment are underutilized and the microfinance services are developing and maturing.

The economic activities generated by the new business models of microfinance services can have a multiple impact on the sustainable development of the Romanian village and the Romanian business environment. (Manta O., 2017)

#### References

Alexandrescu, F. Mihalache, F. (2011): Economia socială și cooperativele. Editura Expert, București. Boscia V., Carretta A. și Schwizer P. (2010): Cooperative Banking in Europe: Case Studies (Palgrave

Macmillan Studies in Banking and Financial Institutions), Palgrave Macmillan.

Bucătaru, I. (1997): Managementul întreprinderii agricole românești în tranziția către economia de piață. Editura Universității "Al.I. Cuza ", Iași.

Bușe, L. (2005): Analiza economico-financiara. Editura Economică, București.

Buzducea, D. (2009): Sisteme moderne de asistență socială. Editura Polirom, Iași. Buley, Taylor (2009-07-31). "How To Value Your Networks". Forbes. Retrieved2010-12-10.

Carl Shapiro and Hal R. Varian (1999). Information Rules. Havard Business School Press. ISBN 0-87584-863-X.

Dobrescu, E.M. and Sorici, C. (2009): Fondurile structurale. Editura Sigma-Eurolobby, București.

Dobrescu, E. M. and Manta O. (2016): New paradigms in economic sciences, LAP LAMBERT Academic Publishing, Germany.

Geoffrey Parker and Marshall Van Alstyne (2005). "Two Sided Networks: A Theory of Information Product Design" (PDF).

Management Science. 51 (10).doi:10.1287/mnsc.1050.0400. Retrieved 2011-06-21.

- King, M. (2016): The end of Alchemy, Money, Banking, and the Future of the Global Economy, Editura Comunicare, București.
- Knut Blind (2004). The economics of standards: theory, evidence, policy. Edward Elgar Publishing. ISBN 978-1-84376-793-0.
- Lin, Henry; Roughgarden, Tim; Tardos, Eva; Walkover, Asher. "Stronger Bounds on Braess's Paradox and the Maximum Latency of Selfish Routing." (PDF). Stanford Theory. Society for Industrial and Applied Mathematics. Retrieved16 September 2014.
- Manta O. (2017): New challenges in economic science, LAP LAMBERT Academic Publishing, Germany.
- Nicholas Economides and Evangelos Katsamakas (May 2008). "Two-sided competition of proprietary vs. open source technology platforms and the implications for the software industry" (PDF). Retrieved 2010-12-10.

Robert M. Grant (2009). Contemporary Strategy Analysis. John Wiley & Sons. ISBN 0-470-74710-2.

- Thomas Eisenmann and Geoffrey Parker and Marshall Van Alstyne (October 2006). "Strategies for Two Sided Markets". Harvard Business Review. Retrieved2011-06-21.
- Sundararajan, Arun (2007). "Local network effects and complex network structure". The B.E. Journal of Theoretical Economics. 7 (1). doi:10.2202/1935-1704.1319.