

THE KNOWLEDGE USER PROFILE IN THE RURAL AREA OF ROMANIA

Maria Claudia PREDA (DIACONEASA)*

Abstract: *The economic entities today are struggling to find the most effective way of combining the resources they have, tangible or intangible, in order to produce and sale the most wanted products, their purpose is to gain and keep the highest share of the market. These intangible resources, in our era, which is changing from industry based to knowledge based, are represented by knowledge, brain capacity and the power to use it at the highest rate. Knowledge has started to be considered a primordial factor, along with energy and matter, factors that hold the origin of the universe. The economic agents have realized that holding the latest information, in any domain or activity, and its proper use, also means holding a greater share of the market for a longer time, which leads to the final purpose of every economic unit, the profit. They can be called knowledge consumers. In Romania's rural area things are not the same, the knowledge consumer is theoretically represented by any economical unit activating here, but, as shall be presented further in this paper, things are far from theory. Those who should be knowledge consumers are using old methods and technologies, they are based on their own experience and do not know how to use the information that regards them directly, things that have to be changed in order to be an active and competitive member of the E.U.*

Keywords: information; consumer; rural area; knowledge transfer; cooperation

JELL classification: A14; D13; D83; D84; I21; J43

Introduction

The Romanian rural environment is currently seen as a piece of history that we can see with our eyes. Unlike Western countries, where traditions and the specifics of the villages have been preserved, but at the same time benefit from the same living conditions as the population of urban and economic activity is equally intense. The association and cooperation developed naturally between western rural actors gave their ability to choose the segments they want to go, to do their own strategies based on the needs that they know best, so today cooperatives are the most powerful form of work in rural areas, exceeding the borders of a single country.

Romania, in terms of the association and cooperation is in its early stages. Times of “scheduled agriculture” and the reforms of the past 25 years have stopped keeping pace with the development of Western countries. Western farmers know what they want and know where they can get what they want, are informed and appreciate the information. Romanian farmers have to catch up in this area.

* PhD Student at The Bucharest University of Economic Studies, e-mail: maria_preda1990@yahoo.com

1. Literature review

The E.U. has concluded, after years of observation that in order to remain one of the dominating powers of the world it needs to have well trained people, to offer the possibility to study to everybody, because an organization's power is in its people so the European Commission wants to count on the Europeans for progress. The base of evolution has always been the use of information, losing it causes a gap in evolution and the need to start over again, so the possession and use of information gives the advantage of moving forward. If we think about public data, we can see an unused source of information, this information has great potential, currently untapped in terms of reuse in new products and services and increase efficiency in administration.

Global economic benefits derived from opening the public data resource could amount to 40 billion Euros per year in the EU. Also, open public data encourages citizens participation in political and social life and contribute to policy areas such as the environment. "Big data technology and services are expected to grow worldwide to 16.9 billion USD in 2015 at a compound annual growth rate of 40% – about seven times that of the information and communications technology (ICT) market overall." (Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions, Towards a thriving data-driven economy, 2014, p. 2).

Information and the ability to use it represent strategic resources for the development and survival of any economic activity, the progress we are witnessing is clear evidence that the role of knowledge in the global economy is the most important. "Intellectual capital is the possession of knowledge, applied experience, organizational technology, customer portfolios and professional skill that confers a competitive advantage on the market" (Edvinsson and Malone, 1997, p.3). Lisbon Strategy, adopted in 2000, establishes that the European Union should become "To become the most dynamic and competitive knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion, and respect for the environment" (Lisbon Strategy, 2000, p.11).

National economies today are based on international flows of goods, services, people, and not least ideas. An economic entity is thought of today as an institution encompassing knowledge, this includes the application, operation, use and transfer of information. The success of an economic entity can be even greater as intangible assets held are fully utilized. Examples of intangible assets are patents, copyright agreements, trademarks or intellectual property and customer lists, reputation,

customer loyalty, organizational structure of the unit and its specialization in productive scientific or technical knowledge.

1.1 The information market

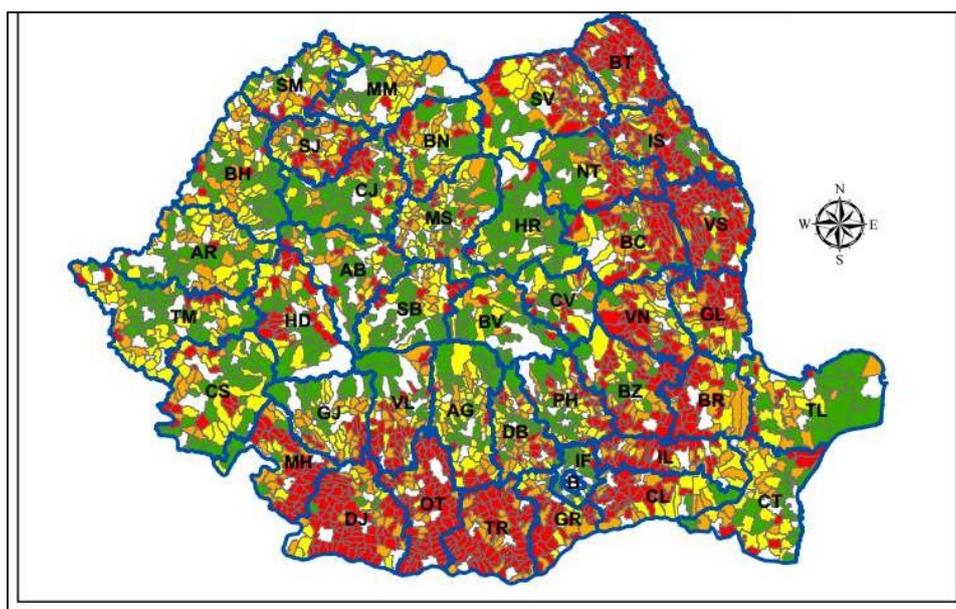
As any other resource, information needs a market with supply and demand, not everyone is a consumer of information and knowledge and not everyone has the capacity to be a producer of information. This market works based on the same economical laws as any other market and it holds the characteristics of this newly recognized resource.

The European Union has based its development strategy on information usage, considering the year 2020 a deadline for becoming an economic power based on knowledge, that being the key to solving all other problems.

We have now 5 more years to accomplish the purpose of 2020 Strategy and 5 years have passed since it was started. If Romania has an urban environment and an academic environment that follows the same trends as the western countries, the rural environment is far behind, and although its inhabitants are perceptive and clever, they lack basic education which can help them use their natural perceptiveness, a study of The Ministry of Agriculture and Rural Development (2014) has ranked the rural areas by their socio-economical potential in order to see which are those we can expect to ask for European funding for development.

Even if at first sight we could think that the poorest areas are the first to search development, the situation is opposite, and the areas first in line to ask for development funding are those with a high potential for it. In Figure 1 we can observe where are the rural areas which are considered capable of creating useful development projects,” in green, in yellow are the places 601-1200, in orange places 1201-1800 and in red last places, and most undeveloped rural areas” (ASE, *n.a.*, p. 30).

“The potential is based on a series of factors such as the population density, number of doctors for 1000 people, access to water resources, health infrastructure, educational infrastructure, roads and even internet access, all of them important factors in knowledge market” (ASE, *n.a.*, pp.13-15) so a conclusion that can be extracted from the similarities of this study and the conditions of a functioning information market is that the map below is a potential map of the intensity of information transfer processes and where is expected for them to grow along with the development of economic and social activities.

Figure 1 - The socio economical potential of rural areas

Source: ASE, n.a., p 169

2. Information in agriculture

Although cross-border cooperation measures aimed at economic and social development have intensified, the development of rural areas has not seen good progress, due to insufficient promotion of the existing opportunities for investment, lack of information and mobilization of the population remaining in many areas, population with modest outlooks and concerns.

Farmers represent a segment of the population facing problems related to the development of economic activities due to: lack of preparation, lack of information on business opportunities, including through association and business development, reduced capacity to access funds to finance the modernization and streamlining practiced agriculture, commerce practiced empirically, recovery inefficient intermediaries interposing the marketing of agricultural products, the weak presence of foreign investors or domestic in rural areas and the need to attract them to boost efficiency retrofitting and agriculture, insufficient awareness of green technologies in agriculture, the mismatch supply and demand. In other European countries farmers represent a segment with a high interest for new technologies, new ways of production and processing products and not least better ways of living.

2.1. Who is the producer of information dedicated to rural areas?

From a practical standpoint, anyone can be considered a producer of information and also can be regarded as a consumer of information. Producers of information or carriers of information goods supply is a category made up of producers or suppliers of such goods.

The most relevant economic information, not only, in the EU comes from the European Commission, the EU Parliament and the other decisional institutions, this information is retrieved, processed and adapted by the Member States so that their people can advantage in the most efficient way to them, but they take both global and national information in order to synthesize new work strategies.

Those in the position of information producers can also be information consumers, they need to see the market flows, to process the information they take from the market and put in a new form, easy to be swallowed in a new flow by other consumers.

Besides the official institutions, producers of information for the rural area can be the research institutes, profiled Academies or Universities, Institutes of Statistics, agriculture fairs or undergraduate institutions in the agriculture field.

2.2. The level of education in rural areas

Because in theory the information consumer in the rural areas must be well prepared in order to be an active actor in the knowledge market, in practice the situation of educational infrastructure is shown in the next tables.

Table 1 - The number of scholar unities

Residential areas	Total	Kindergartens	Primary education	Secondary education	Post-secondary education	Higher education
2011						
Total	7 099	1 367	3 923	1 615	86	108
Urban	3 911	1 265	1 126	1 329	84	107
Rural	3 188	102	2 797	286	2	1
Rural/Total	45%	7%	71%	18%	2%	1%
2012						
Total	6 961	1 222	3 925	1 606	101	107

THE KNOWLEDGE USER PROFILE IN THE RURAL AREA OF ROMANIA

Urban	3 784	1 131	1 113	1 335	99	106
Rural	3 177	91	2 812	271	2	1
Rural/Total	46%	7%	72%	17%	2%	1%
2013						
Total	6 967	1 187	3 945	1 605	127	103
Urban	3 792	1 116	1 122	1 329	123	102
Rural	3 175	71	2 823	276	4	1
Rural/Total	46%	6%	72%	17%	3%	1%

Source: Data processing of Tempo online database

“Rural areas represent about 87% of the total surface of Romania and the population living it is 45%” (NPRD 2014-2020, p.1), the proportion is kept in the total number of scholar unities in 2011, the trend is slightly ascending in 2012 and 2013.

The highest percentage of scholar unities in rural area is in primary education sector, 71% in 2011 also slightly ascending in 2012 and 2013, secondary education sector in represented by 17-18% in rural areas, the other sectors cannot be taken into account, the percentage being very low, even in the kindergarten sector. Out of the total number of 286 high schools in rural areas, in 2011, only 34 or 11% were represented by agricultural high schools, 7 or 2% were veterinary high schools and other 8 high schools have a specific domain connected to the rural areas (NIS, Tempo online database). That can be interpreted as a very low correlation between the activities that mostly take place in the rural area and the education supply for this area, because the supply does not meet with the demand in the education market causes a short-circuit in the flows of information market. The youth learns by its self or from elders the processes of agriculture and that causes a self-sufficiency in knowledge and not the need of consuming information, to progress to new technologies and methods. This can be a primary reason for the break in natural chain of information transfer from producer to consumer and the other way around.

Table 2 - The number of students enrolled in school

Residence area	Total	Enrolled in kindergartens	Enrolled primary education	Enrolled in secondary	Enrolled in post-secondary education	Enrolled in higher education
2011						
Total	4 797 357	673 641	2 610 022	901 150	72 692	539 852
Urban	3 547 167	370 124	1 737 248	829 134	71 206	539 455
Rural	1 250 190	303 517	872 774	72 016	1 486	397

Rural/Total	26%	45%	33%	7%	0.2%	0.07%
2012						
Total	4 206 811	581 144	2 688 590	851 544	85 533	
Urban	2 964 762	324 288	1 775 345	781 209	83 920	
Rural	1 242 049	256 856	913 245	70 335	1 613	
Rural/Total	29%	44%	33%	8%	1%	
2013						
Total	4 115 662	568 659	2 649 040	803 109	94 854	
Urban	2 902 296	319 320	1 752 634	737 182	93 160	
Rural	1 213 366	249 339	896 406	65 927	1 694	
Rural/Total	29%	43%	33%	8%	1%	

Source: Data processing of Tempo online database

The situation is even more relevant if we see the number of persons enrolled in school in rural areas, in 2011 only 26% of the enrolled children was in rural areas, the percentage increases to 29% in the next two years, but most of them are enrolled in kindergartens and primary school, it is natural for the number to decrease when it comes to secondary school and higher education because of the low number of unities, but a percentage of 7% enrolled in high school is much more than concerning if Romania wants its future farmers to be an active part of the knowledge market.

An easy conclusion is that the actual structure of the educational system is not proper for all its potential beneficiaries and does not favor the access to knowledge market by the time we speak and not by far for the future. So the educational system in the rural area of Romania in its actual form cannot create producers or consumers of information.

3. The profile of information consumer in the rural area

If the above conclusion is a very hard one, I wanted to see how the Romanian farmer does line up to the other European countries and what is his position in relation to the other farmers.

Two variables with a high importance are, first, the time that has passed since a country is a full member of the EU, this can be translated to the amount of funds that was available to each one and the transition period from an extensive form of agriculture to an intensive one. The second variable in the capacity of adaptation to changes of each population.

Setting the two stated variables for Romania, a country with full member rights since 2007, a new “neighbor” in the community of countries who benefited from the Common Agricultural Policy for far many years, who were active parts to the changes brought to its form and who had time to adjust

to every change. The other variable is, by the way I see it, an advantage for the Romanian population, due to its capacity to adjust to the high number of major changes though time, so the transition to information market should be accepted as a fact in a period of about 15 years.

Table 3 - Number of farms

Juridical status	Number of farms			
	2002	2005	2007	2010
Total	4 484 893	4 256 152	3 931 350	3 858 993
Individual farms	4 462 221	4 237 889	3 913 651	3 828 345
Agricultural society/association	2 261	1 630	1 475	1 381
Trading companies	6 138	4 824	5 147	16 500
Government units	5 698	4 818	4 177	3 263
Cooperative units	87	108	71	68
Other	8 488	6 883	6 829	9 436

Source: Year 2002 General Agricultural Census, year 2005 and 2007 Structural Surveys in Agriculture and 2010 General Agricultural Census.

The proportion of individual farms to cooperative units is opposite to the one in countries with tradition in CAP (Common Agricultural Policy), they understood the necessity of working together in order to have low prices for inputs, quality products and power to sell them, all of these combined create the information market of the rural area.

Because the information producers I mentioned in the previous chapters are big and very big, they cannot address to 3 858 993 small individual farmers, the information producers need to have relations with big production units, such as cooperative units. The European model promotes the cooperatives as the best way of transition to a knowledge based market in the rural area. Cooperatives present themselves with already mentioned economic advantages and also with social advantages, the possibility to solve the educational problems, the unemployment problem and infrastructure problems.

A survey I conducted in 2012 on a number of 22 individual farmers in three agricultural villages of Romania creates a profile of the potential user of information based on 35 questions regarding the sources they use for information, their management skills, their attitude towards European funding and belief in public policies, their desire to invest in their farm in order to make it more profitable and the attitude they have towards cooperation and association.

The conclusions of my survey are:

There are two categories of farmers, those with advanced age, small farms, traditional methods and those younger who want to make agriculture a business and follow training courses to pursue their goals.

Information can penetrate into rural areas by all means, written, spoken and digital, but its quality from these sources isn't considered to be very high.

Information centers, as interviewees say, are built only to meet the terms imposed by the EU and consultants on issues of accessing funds do not have great credibility. Also accessing European funds is an opportunity only towards young people, older farmers see them as a loophole for authorities to control their activity, notice the communist era which caused deep wounds in the community spirit.

The technologies used are outdated, the new ones are very expensive for Romanian farmers income, pesticides and fertilizers are used at most as directed on the label, or as it deems the user, certified seeds have become priorities, but within the limits imposed by budget.

The production obtained is sold fresh, rarely exist processing or storage capacity so the value added to the production is zero, prices that farmers get are small and the production is uncompetitive on the European market.

Cooperation and association are rarely seen as an opportunity for development because of many reasons such as the forced collectivization experience, the fractioned information farmers receive or a very attached to land attitude of farmers.

Lack of well-regulated markets for agricultural products makes the development of a market for information to be hampered because farmers still do not see the need for it.

Conclusions

Romania's situation is described by a lack of structured markets for agricultural and food products, due in part to the lack of information and tools to support existing in the CAP before our accession in the EU. Lack of proper markets makes it all the more difficult for the development of a market of information in rural areas, the demand and production of information do not find their meeting point in the majority of Romanian farmers.

Romanian rural inhabitant is characterized by old age, lack of specialized knowledge on agriculture and also by a restrictive attitude towards the new policies. His attitude is fully understandable because of all the reforms and changes he's been through only in the last 25 years. The rules imposed by the EU on agriculture are known in a large proportion of Romanian farmers but

their fulfillment is too difficult or almost impossible for them because of the low income. This becomes a vicious circle, farmers do not have the resources to meet European standards, compliance which could bring the needed revenue for development.

The information dedicated to rural exists and it can reach those interested, but the problem occurs in the inverse proportion between information producers and its consumers, a ratio of high to low, which can only be a hindrance to a natural development of market information.

The solution promoted for the development of EU agricultural potential, as is the case of Romania and for initiating information market actors is to create modern agricultural cooperatives on the models of Western Europe. They have proven over time to be the winning formula for rural development, bringing it to the knowledge of urban and while keeping its specificity and traditions.

The cooperative offers its members the power to decide and thus ensure the participation of local actors by developing their need to be informed to make good decisions by relating their own activity and community.

Information empowers its owner, in order to decide what is best for them, the Romanian farmers need to be informed, to use the information and step up in the “development game”. The fastest way to catch up with the western countries and become a competitor to them is to follow their example, their strategies or in another way of putting it take their good examples and make them work in our favor.

References

ASE *n.a.* “The socio economical potential of rural areas”, Bucharest, available at: <http://www.mapam.ro/docs/dezvoltare-rurala/programare-2014-2020/studiu-potential-socio-economic-zone-rurale.pdf> (accessed 15 may 2015)

Edvinsson, L. and Malone, M. S. (1997) *Intellectual Capital: Realizing your Company's True Value by Finding Its Hidden Brainpower*, HarperCollins Publishers, New York.

European Commission (2011). “Open data – An Engine of innovation, growth and transparent governance”, Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions, available at: [http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri= COM:2011:0882:FIN: EN:PDF](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0882:FIN:EN:PDF)

European Commission (2014), “Towards a thriving data-driven economy, Communication From The Commission To The European Parliament, The Council, The European Economic And Social

Committee And The Committee Of The Regions”, available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2014:0442:FIN:EN:PDF>

Ministry of Agriculture and Rural Development (2014) “National Program for Rural Development 2014-2020”, available at: http://www.madr.ro/docs/dezvoltare-rurala/programare-2014-2020/PNDR_2014_-_2020_01.07.2014.pdf

National Institute of Statistics (2002) General Agricultural Census, available at: <http://www.insse.ro/cms/files/GAC/index.htm>

National Institute of Statistics (2005 and 2007) Structural Surveys in Agriculture, available at: <http://www.insse.ro/cms/files/statistici/comunicate/alte/comunicat%20ASA.pdf> and <http://www.insse.ro/cms/files/statistici/Ancheta%20structurala%20in%20agr07/1-t1.pdf>

National Institute of Statistics (2010) General Agricultural Census, available at: <http://www.insse.ro/cms/files/RGA2010/Rezultate%20definitive%20RGA%202010/Volumul%20I/Tab1-suprafete.pdf>

National Institute of Statistics, Tempo Online – Education section, Number of scholar unities by categories of unities and residential environment and Number of teachers by categories of unities and residential environment, data processing;

The Lisbon Strategy (2000), available at: http://www.europarl.europa.eu/summits/lis1_en.htm