

THE EVOLUTION OF ROMANIAN TRADE IN INFORMATION PRODUCTS AND SERVICES

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Abstract: The trade in Romania has seen an increased dynamism in many areas. When it comes to food or non food products, or services are bringing into question we can say that the period of consumerism in which we are living hall-marks the commercial activities. Trade in information products and services had lately a remarkable richness, being the categories that arouses greatest interest from certain consumers becoming more and more numerous and demanding in terms of technology. In this paper we proposed to analyze how much the sales of information products and services respond to the many needs expressed by Romanian customers and to capture the dynamics in which this type of commerce evolved.

JEL Classification: F14, L81,

Introduction

Trade is the activity that affects all sectors of the economy, helping to ensure a certain standard of living of the population. This influence denotes power and responsibility. Especially in a competitive economy, led by tough market rules, trade is an essential activity for the population, contributing to its consumption needs.

The development of telecommunications and computer use has made possible the explosive growth of the Internet and the creation of specific technologies that greatly influence the socio-economic activities. In such conditions, the development of electronic commerce has revolutionized business management and will boost international trade. Such changes will give consumers new possibilities for search and choose numerous and varied products and services, and also the most competitive in the world market.

Today's society is characterized by access to information, eliminating secrecy in the structures of society, confusing the public space with the private one, the degradation of family values into obsession for a career which contribute to the increased consumerism and emphasizing concern for possession. If in an early stage of the phenomenon, individuals were marked by the desire to show to the public their personal achievement, nowadays the recovery is made not favoring wealth, but by twisting history and by desire to govern a world where the priority is ensuring consumption compatible with the individual consumer preferences. Multiplying objects is a constant of contemporary society, but abundance is not a reason for celebration, it reinforces a vicious circle in which "the individual will weave a world where no one can find himself, for possessing space, positioning itself beyond time."¹

In the 21st century, the digital segment is becoming more involved in the global trade powered "to over 3.7 trillion dollars of annual expenditure on information technologies and services such as mobile computing and cloud computing, Big Data and analytics" as stated in the study of International Data Corporation.² This development has major impact on the global economy and implicitly on the IT sector in the sense that businesses of all types and sizes through information technology can develop new models for increasing productivity, rationalization and optimization of operations and stimulate creativity in solving difficulties. All these had a positive influence on creating jobs and on economic growth.

According to a study by Gartner Inc.³, the total expenditure on information technology and services in 2014 reached 3.750 billion dollars worldwide, representing a growth rate of 2.1% compared to 2013. Also in this study is estimated that some IT products become commodities earlier than the company would have expected although it notes that the increasing availability of products and viable alternatives had a dampening effect on IT spending outlook in the short term. In this sense it can be presented the situation of mobile phones and tablets, and also of the services vendors who need to establish quite low prices to grow their sales.

Returning to the market for information products, in 2014 the total market for PCs, tablets and smartphones has increased by 6.9% over the previous year, which meant a total volume of 2.5 billion units shipped. As it is known, the PC market is shrinking, and about the tablet market is supposed to have a significant slowdown in growth of the

¹ Baudrillard, Jean, „Societatea de consum. Mituri și structuri”, București, Editura Comunicare.ro, 2005.

² According to IDC (International Data Corporation), 2014, <https://www.idc.com/>.

³ Gartner, Inc. <http://www.gartner.com/>

number of units delivered since the market is saturated with such products, while sales of notebooks have stabilized during the year .

Mobile phone market grew by 4.9% over the previous year, reaching 1.9 billion units shipped. In the top of demand remain smartphones and tablets, but their prices begin to fall to be accessible to any consumer. Device manufacturers are beginning to align with the new trends, launching various hybrid tablets, netbooks, and decreasing product prices. The 2014 year was dominated by the smaller screen tablets and smartphones with big screens and the predominant operating system of devices remain also the Android followed by Windows and then iOS.

Types of products and services

In present, the Internet is used for commercial purposes (e-commerce), fact that led to significant changes in the economic and social life. As a result of rapid and continuous interaction between business, society and technology, major changes came in the way of business development on markets and the way in which consumers buy their desired goods and services.

Products and services, which have as foundation the permanent use of technology and the Internet in the areas of production, marketing and use by consumers, are important elements in an information society, without their existence being unable to live together in the 21st century, also in the future. A classification carefully selected and highly developed is presented in the following:⁴

- ❖ Computer equipment and office equipment
- ❖ Communications and telecommunications equipment
- ❖ Computer equipment and supplies
- ❖ IT systems and software packages
- ❖ Software packages for databases and operating
- ❖ IT services
 - Aid services for hardware
 - Programming services and software aid
 - Replacement data services
 - Internet Services
 - IT services
 - Assistance services and information aid
 - Information networks services
 - Information audit services and information tests
 - Information safety services and conversion computerized catalogs services

All these information products and services are integrated into complex sector of information and communication technology (ICT), whose implementation in the context of the company is a global trend of world development. We will also notice further on the role of ICT solutions in consulting and implementing a quality management into large companies.

Trade in information goods and services in Romania in statistics

ICT market in Romania is one of the most dynamic sectors, with over 4,000 businesses that operate in this area.

According to the National Statistics Institute, the ICT sector's contribution to nominal GDP in Romania in 2014 was 6%. The volume of activity in this sector in the domestic market increased by 11% in 2014 compared to 2013. With a contribution of 0.6%, the ICT sector was the second most important contributor to GDP growth in Romania in 2014, compared 2013 (2.9%), after the industrial sector, which had an increase of 0.9%.

Also all according to INS data, the turnover of market services rendered mainly to enterprises, gross series, in August 2015 compared to August 2014 increased overall by 9.2%, in nominal terms, due to significant increases registered to computer service activities and Information Technology (+ 23.6%), transports (+ 12.8%), communication activities (+ 7.4%), activities of cinema production, video, television programs; and broadcasting programs (+ 6.7%) and other services provided to enterprises (+ 3.5%). During the period 1 January to 31 August 2015 compared with the period January 1 to August 31, 2014, in nominal terms, the turnover of market services rendered mainly to enterprises, gross series, globally increased by 8.3% due to rises Information service activities, and information technology (+ 23.6%). [INS]

Regarding service activities in the area studied, the statistics are as follows:

⁴ Common Procurement Vocabulary, accessed on www.123coduri.ro.

Table 1. Total service activities and information services delivered mainly to enterprises

Thousands LEI current prices

| CAEN Rev. 2 | 2009 | 2010 | 2011 | 2012 |
|--|-----------|-----------|-----------|-----------|
| Total | 154,458.2 | 162,542.8 | 178,467.2 | 195,771.6 |
| Service activities in information technology | 7081.1 | 8753.6 | 9571.3 | 12407.5 |
| % | 4.58 | 5.38 | 5.36 | 6.34 |
| Information service activities | 1060.6 | 1046.9 | 1257.7 | 1493.1 |
| % | 0.68 | 0.64 | 0.70 | 0.76 |

Source: www.insse.ro

It is observed from data contained in the table above that the information technology service activities recorded increases in the years for which official data were retrieved. So if in 2009 these represented 4.58% of total services for enterprises in 2012 reached a share of 6.34. Also IT services saw increases from year to year but at a smaller size than information technology services.

Table 2. Value index of turnover in total activities and in computer services and information technology activities

| Year 2010 = 100 | 2014 | | | | | 2015 | | | | | | | |
|--|--------|-----------|---------|----------|----------|---------|----------|-------|-------|-------|-------|-------|--------|
| | August | September | October | November | December | January | February | Tues. | April | May | June | July | August |
| TOTAL | 122.6 | 127.8 | 125.2 | 126.8 | 126.4 | 129.0 | 130.3 | 130.4 | 132.7 | 132.2 | 133.9 | 134.4 | 133.9 |
| Information service and information technology activities | 155.1 | 149.7 | 149.9 | 152.3 | 151.3 | 163.6 | 172.7 | 176.7 | 178.1 | 191.0 | 179.6 | 180.7 | 188.6 |
| - information technology service activities | 159.7 | 152.2 | 151.7 | 156.9 | 158.2 | 170.0 | 176.0 | 178.1 | 181.6 | 193.5 | 181.6 | 181.3 | 188.7 |
| - IT services | 109.7 | 125.6 | 128.4 | 137.9 | 146.8 | 151.1 | 153.4 | 164.8 | 160.3 | 163.3 | 174.9 | 177.5 | 172.9 |

Source: www.insse.ro

More recent data on IT services are found in Table 2, where it is supposed that the turnover of the total activities but also in the services, that covered our study, experienced increases in each month of the years 2014 and 2015 compared to 2010 as standard year. If, per total, the overall increase in August 2015, the turnover value index is 133.9% ie an increase of 33.9% compared to 2010 in the information services and IT services it is developed that was an increase of 88.6 % which brings forward the development of this sector lately.

This trend of development was determined and attract further increasingly significant costs to research development activity of the study.

Table 3: Total Expenditure from research - development activity in the business sector

Thousands LEI current prices

| CAEN rev 2 | 2010 | 2011 | 2012 |
|--|---------|---------|---------|
| Total business sector | 924 780 | 1004536 | 1119435 |
| Manufacture of computer, electronic and optical products | 21248 | 21,356 | 95,013 |
| % | 2.29 | 2.13 | 8.4 |

Source: www.insse.ro

It is developed that in 2010 when research spending in the computers and electronic products manufacture represented 2.29% in 2012, they represented 8.4% of total expenditure on research-development from business area.

Table 4: Turnover in wholesale for businesses whose main activity is trade overall and over computer and telecommunications equipment

Millions LEI

| | Years | | | | | |
|--------------------------|---------|---------|---------|---------|-----------|-----------|
| | 2008 | 2009 | 2010 | 2011 | Year 2012 | Year 2013 |
| Total of which | 220 690 | 203 733 | 210 409 | 232 999 | 244 517 | 240 560 |
| State majority ownership | 61 | 49 | 53 | : | : | : |

| | | | | | | |
|---|---------|---------|---------|-------|-------|-------|
| Private majority ownership | 220 629 | 203 684 | 210 356 | : | : | : |
| Wholesale of information and communication equipment | 8462 | 7683 | 7656 | 10158 | 11401 | 12256 |
| Private majority ownership | 8462 | 7683 | 7656 | : | : | : |

Source: www.insse.ro

It is observed that the businesses in wholesale of information and communication equipment only works in the private sector and have significant increases from year to year. So if in 2010 the turnover in the analyzed field was 7656 mil. LEI representing 3.6% of total turnover, in 2013 was 12256 mil. LEI representing 5.1% of total turnover.

Another important segment for this study is the software market and according to the Employers Association of the Software Industry and Services (ANIS), the software and services market in Romania has registered annual growth rates of over 20% during 2000-2008. The growth was fueled by EU funds available, export growth and emergence of several software start-ups. Major consuming sectors of the local market were the public utilities, telecom, financial and educational. According to ANIS, the Romanian packaged software market reached about 433 million dollars in 2012, which represents an increase of 7.5% over the previous year. In 2012, applications segment was the most dynamic sector accounting for 52.2% market share, followed by infrastructure system software with 31.7% and software applications and development with 16.1%. The market of custom applications development registered nearly 60 million dollars in 2012, up 10% compared to 2011.

Romania has seven companies listed in the 2014 Deloitte Technology Fast 500 for Europe, Middle East and Africa (EMEA). Deloitte ranking is based on revenue growth over a period of five years for companies in the technology, media, telecommunications, life sciences and environmental technologies, and the seven Romanian companies registered an average increase of 575%. These companies are: ITNT (in the Internet segment), Bittnet Systems (in the telecommunications and networking segment), Softelligence (the software segment), Life Is Hard (the software segment), Teamnet International (the software segment), Fortech (the software segment), Trencadis (the software segment).

As regards the categories of commercial packaged software developed by companies from Romania, the ERM applications (Enterprise Resource Management) are the most popular, followed by O & M applications (Operating and Manufacturing) and CRM applications (Customer Relationship Management), according to ANIS.

Following last forecast made in accordance with ANIS, the IT spending in Romania are forecast to grow at a compound annual growth rate (CAGR) of 2.4% in the coming years, reaching 3.37 billion dollars in 2017. Romanian software market is forecasted to grow at a CAGR of 3.3% over the next years. Therefore, the software market is expected to expand more in a faster pace than all Romanian IT industry and this is an important opportunity for the companies directly or indirectly involved in the development, customization and sale of software.

The growth of Romania's economy, increased consumer spending and government spending will stimulate expansion of the IT sector in Romania in the coming years.

Digital Agenda for Romania in the period 2014 - 2020, published by the Information Society Ministry, in September 2014, provides that a complete implementation of the strategic vision for the ICT sector in Romania requires total investment of over 3.9 billion euro. This is expected to translate into a GDP growth of 13%, to increase the number of jobs by 11% and generate a decrease in administrative costs by 12% during the 2014-2020.⁵

Conclusion

In conclusion, the IT market is deeply influenced by demand for software and electronic products and services that are commercialized, having a significant increase in the near appealing future of technology and robotic era. The numbers resounding of billion dollars coming from the sale of software, smartphones, tablets, laptops and other electronics needed to survive online aroused the interest of researchers who indulge pleasure to perform various studies in this area.

The future is permeated by technology, automation and intelligent robots designed to make human life easier. Already they have initiated procedures for the greater importance of softwares, mobile applications and higher Internet speed, allowing ease of use and effectiveness. IT consumption trends will revolutionize the entire world, directing its influence in an ascent that will prepare society to become interconnected with each individual. These development trends of both the information products and services will lead to complete industrialization of society and to how people react, so free time will increase significantly, and the problems will be solved more quickly and effectively, being an important factor in the development of all aspects of societies.

⁵ FRD Center Market Entry Services, www.market-entry.ro

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