

ICT IN SMALL AND MEDIUM ENTERPRISES (CASE OF ALBANIA)

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ABSTRACT

Small and Medium-sized Enterprises (SMEs) are a crucial sector for the EU economy that needs support by ICTs. They are keys for making SMEs grow. As the global economy becomes increasingly reliant on ICTs to receive, process, and send out information, SMEs in developing countries should not be left behind. The purpose of this paper is to give an overview of the ICT market in Albania and to study the beliefs and attitudes of SMEs toward the use of ICTs as well. Beside information on the current situation, this paper aims to identify the needs and difficulties SMEs faces in using ICTs.

Key words: ICTs, SMEs, Internet

CONCEPTS AND DEFINITIONS

1.1 What are SMEs?

The technical definition varies from country to country. Some countries have different definitions for SMEs in the manufacturing and services sector and



may exempt firms from specialized industries or firms that have shareholdings by parent companies. But the European Commission has a recognized legal definition. According to this definition an SME must have less than 250 employees, a turnover less than 50 million Euros, and a balance sheet of less than 43 million Euros.

1.2 Why are SMEs important?

The only way to reduce poverty in a sustainable way is to promote economic growth, through wealth and employment creation. In developing countries, SMEs are the major source of income, a breeding ground for entrepreneurs and a provider of employment.

UNIDO, WSIS Report, February 2003

SMEs are important because on average, they comprise over 95 percent of the economy. The contributions of SMEs to employment and the countries' gross domestic product (GDP) are by no means trivial. As of July 2006, close to 140 million SMEs in 130 countries employed 65 percent of the total labor force.⁹⁹ Moreover, SMEs are the driver of economic growth and innovation. Figure 1 describes both reinforcing dynamics. The total number of SMEs in the economy depends on the rate of SME creation and rate of SME destruction. Profitable market opportunities increase the rate of SME creation. This increases the total number of SMEs in the country, which increases job creation and income per capita. As people become wealthier, they will increase their consumption, which in turn will open up new market opportunities that will entice the creation of more SMEs. Contrary to multinational corporations, the growth of SMEs directly benefits the country because most SMEs are domestic firms. This reinforcing dynamic generates economic growth. The reinforcing loop of innovation also drives economic growth. As the number of SMEs increases, their knowledge of their product and industry increases. Their knowledge allows them to innovate on the product or process, which helps them form a competitive advantage to generate more profits. Again, market opportunity as captured by the

⁹⁹ World Bank. International Financial Corporation Report: Micro, Small and Medium Enterprises 2006.



profitability of SMEs will encourage more people to establish their own SMEs to capture the opportunity.

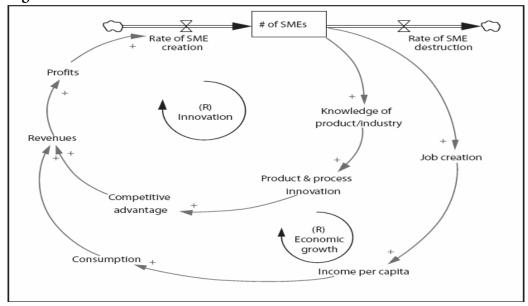


Figure 1: SMEs are a Driver of Economic Growth and Innovation

Information and communication technology (ICT) connectivity (PCs and Internet) is very widespread in businesses of all sizes. As is the case with all technologies, small businesses are slower than large ones to adopt new ICTs. Potential small business benefits and firm and sector-specific strategies drive the adoption and use of ICTs. Furthermore, sectors are increasingly global and dominated by large firms and the structure of their values chains and operations shape opportunities for small and medium size enterprises (SMEs). Principal reasons for non-adoption are lack of applicability and little incentive to change business models when returns are unclear. SMEs also face generic barriers to adoption including trust and transaction security and IPR concerns, and challenges in areas of management skills, technological capabilities, productivity and competitiveness. The issues for governments are to foster appropriate business environments for e-business and ICT uptake (e.g. to diffuse broadband, enhance competition), and target programmes to overcome market failures to the extent that they are needed in particular areas (e.g. skill formation, specialized information). Governments



have a range of SME ebusiness and Internet use programmes. However commercial considerations and potential returns are the principal drivers of small business adoption and profitable use.

1.3 Which is the role of SMEs in European Economy?

SMEs are the D.N.A. of the European economy. They are the basis of our future growth and prosperity... Why? ... Because, in Europe, that growth and prosperity must be based on knowledge... and it is SMEs that are most capable of turning knowledge into growth, ... of turning bright ideas into commercial success, ... of turning research into rewards. That is why they are the essential catalyst in what we call the Lisbon agenda.

Janez Potočnik

European Commissioner for Science and Research, Paris, 15 September 2008

Using the said definition the importance of SMEs in Europe is undeniable:

- There are twenty three million SMEs in Europe: some 99% of all businesses.
- They employ 100 million people: some 70% of the workforce.

It is precisely SMEs that are considered to form "the backbone" of the European economy. They are a key source of jobs and a breeding ground for business ideas. Europe's efforts to usher in the new economy will succeed only if small business is brought to the top of the agenda

Because of this importance the SMEs have on European Economy, the Commission is considering how to improve the ways in which the research and innovation policies and programmes at all levels – regional, national and European - can help SMEs to innovate, improve and grow. In June 2008, the Commission launched the Small Business Act (SBA). This sets out the overarching framework for future SME related policy. A framework – based on the principle of "think small first" - that promises to place SMEs in the mainstream of European policy making.

The SBA already includes a number of specific measures. But it is also a serious political commitment to ensure that policies at EU and Member State level are designed to provide the best environment and the best opportunities for SMEs to grow and flourish.



The impact of these initiatives needs to be improved by better coordination between programmes and initiatives at regional, national and European levels. There are 70 different national cluster policies around Europe and hundreds of regional ones. Each of these is doing a good job but in order to argue for more resources it's necessary to improve their impact through better coordination.

The ways in which the European Commission can support research and innovation are different. The 7th Research Framework Programme provided up to 50% of project financing, and up to 75% for SMEs. To help SMEs to innovate it's necessary less obstacles and better regulation. The European Commission's efforts, in partnership with Member States, to simplify and improve regulation, and to reduce administrative burdens, are particularly important for small businesses. Their lead market initiatives, clear the regulatory way in markets with the highest growth potential, are particularly important for innovative enterprises.

In this global economy, SMEs cannot compete on the basis of just cutting costs; they must compete on the basis of knowledge and value-added. The role of European Research Area is to effectively convert taxpayers' Euros into that knowledge at the best possible exchange rate. It is businesses, especially innovative SMEs that have the job of turning that knowledge back into Euros at a good rate of return.

In the future, regions, countries and the EU must work even more closely together to develop a true partnership between them.

1.4 How has the Knowledge-Based Economy impacted SMEs?

For countries in the vanguard of the world economy, the balance between knowledge and resources has shifted so far towards the former that knowledge has become perhaps the most important factor determining the standard of living – more than land, than tools, than labor. Today's most technologically advanced economies are truly knowledge-based.

World Development Report, 1999

Countries in the world are moving from an industrial economy to a knowledge economy in which economic growth is dependent on a country's ability to create, accumulate and disseminate knowledge. Computers and the Internet catalyzed the growth of the knowledge economy by enabling people to codify knowledge into a digital form easily transmitted to anywhere around the world. People who have access to this new wave of ICT - broadly defined as technology that can be used for transmitting and/or processing information - are part of an information society connected to a virtual network that constantly creates and disseminates new information. ICT has speed up the pace of globalization and increased the complexity of business practices because firms not only need to be familiar with their local context but also with global developments. Thus, to compete in the knowledge economy, countries need a strong ICT-literate skills base that can innovate and adapt quickly to change. More value is placed on the knowledge worker than ever before. Knowledge, change and globalization are the driving forces of the new economy.

The knowledge economy has impacted SMEs both positively and negatively. On the positive side, because the knowledge economy relies heavily on ICT, it has led to the rapid growth of ICT

sectors. Many countries such as India, the Republic of Korea and Taiwan have created enabling environments to ensure that SMEs are well positioned to capture these emerging business opportunities. India, for example, offered relief from import duties for IT hardware, tax deductions for income earned from software exports, and tax holidays. India's thriving ICT sector has in turn propelled the country's economic growth. SMEs outside the ICT sector have also benefited by adopting ICT in their own operations, enabling them to communicate quickly, increase productivity, develop new business opportunities, and connect to global networks.

Conversely, the reliance on ICT in the knowledge economy means that those SMEs who have not yet adopted ICT will have trouble surviving. For example, 60 percent of Intel's material orders are now done electronically¹⁰⁰. With e-procurement becoming mainstream in developed countries, SMEs

 $^{^{100}}$ Lian, Lee Wei,'Net Value: Making SMEs See the Value in ICT'. *The Edge Singapore*, 20 June 2005.

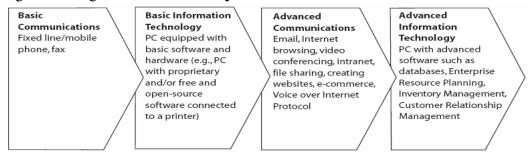


that do not have that capability will not be chosen as business partners. Additionally, SMEs that have not adapted to the faster pace and increasing complexity of the way businesses are conducted will lose out to the increasing competition brought about by globalization.

1.5 How do SMEs use ICT?

SME usage of ICT ranges from basic technology such as radio and fixed lines to more advanced technology such as email, e-commerce, and information processing systems (see Figure 2).

Figure 2: Progression of ICT Adoption



Using advanced ICT to improve business processes falls into the category of e-business. However, not all SMEs need to use ICT to the same degree of complexity. The first ICT tool that

most SMEs adopt is having basic communications with a fixed line or mobile phone, whichever is more economical or most convenient for their business. This allows the SME to communicate with its suppliers and customers without having to pay a personal visit. After acquiring basic communication capabilities, the next ICT upgrade is usually a PC with basic software. Even without Internet connectivity, SMEs can use PCs for basic word processing, accounting, and other business practices. With the Internet, SMEs are able to use more advanced communications capabilities such as email, file sharing, creating websites, and e-commerce. This may be sufficient for most SMEs, especially those in service industries such as tourism. SMEs in manufacturing may adopt more complex IT tools such as ERP software or inventory management software. SMEs may adopt the tools progressively or jump immediately to advanced ICT capabilities.



1.6 What types of Advanced ICT Products are SMEs starting to use?

Like any firm, an SME decides which type of ICT products to adopt based on the concrete benefits they can bring to its core business, the ICT capacity of its employees, and the financial resources available. Most people are familiar with basic ICT such as fixed phone lines, mobile phones, fax, computers, and basic document processing software – like Microsoft Office.

Advanced communication technology, however, is more complex. Advanced communication technology relies primarily on the Internet and the intranet, which allow people within the firm to share files with each other over the same network. Having Internet connectivity enables firms to do faster research, set up websites, conduct e-commerce, and set up video conferences. One of the most revolutionizing developments in advanced communication technology is Voice over Internet Protocol (VoIP). VoIP includes all types of voice communication transmitted through the Internet, whether it is between computer and computer or in hybrid form between computer and regular phone. It competes directly with traditional fixed line and mobile phone operators. Users only pay for their dial-up, broadband, or wireless Internet connection. iSuppli, a market-research firm, estimates the number of VoIP residential users worldwide will reach 197 million by 2010¹⁰¹.

Most complex of all is advanced IT. It is often very expensive, sophisticated and takes more time to implement by a firm. SMEs can sign up for one or all available services. In order to reduce costs, some firms opt to outsource this component or use an application service provider (ASP) that provides functional software capabilities over the Internet. The major types of products are:

Major Products of Advanced Information Technology

- Enterprise Resource Planning (ERP)
- Customer Relationship Management (CRM)
- Supply Chain Management (SCM)
- Enterprise Application Integration (EAI)

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¹⁰¹ The Economist, 17 September 2005, pp. 69–71.



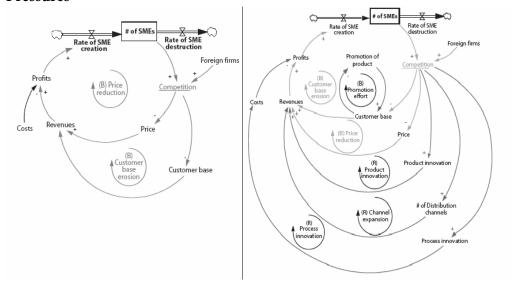
- o Rapid Prototyping and Manufacturing (RPM)
- Knowledge Management (KM)

2. SME ADOPTION OF ICT

2.1 Why Should SMEs Adopt ICT?

SMEs are often the main driver for a country's economic growth. However, as the number of SMEs increases, competition increases, which then results in a decrease in prices, customer base, or both. This in turn will erode existing profits, creating less incentive for people to start SMEs. This dynamic is captured by balancing feedback loops where the greater the number of SMEs, the greater the competition, resulting in a slower rate of growth for SMEs (see Figure 3, left). To counter the increasing competition, firms can lower prices, increase promotion of their product, improve their product, add new distribution channels, and/or improve their internal processes (see Figure 3, right). The challenge is to counter competition when the firm still has the financial resources to do so. Otherwise, once the pressure of competition sufficiently erodes the SME's profits, it will no longer have resources to counter the competition and will have to exit the market.

Figure 3: A Systems Dynamics View of Firm Response to Competitive Pressures





Competitive Pressures of SMEs Ideal Firm Reaction to Competitive Pressures

Foreign firms in both the import and export markets further add to competitive pressures, especially if they react faster to improve their product, process, promotion, or distribution channels. This is the problem of the Digital Divide. When firms in developed countries adopt ICT, firms in developing countries will lose out on the competition. This in turn can slow the growth rate of SMEs and hurt the economy as a whole.

ICT can thus play a very important role because it can help SMEs both create business opportunities and combat pressures from competition. Appropriate ICT can help SMEs cut costs by improving their internal processes, improving their product through faster communication with their customers, and better promoting and distributing their products through online presence. In fact, ICT has the potential to improve the core business of SMEs in every step of the business process.

In countries where SMEs are only starting to adopt basic ICT, obtaining a fixed or mobile phone line can help their business. It can replace the time and costs necessary for face-to-face communication. In countries where SMEs already have basic ICT, adopting more advanced ICT still brings enormous benefits. Advanced communication technologies such as email can help firms communicate faster and cheaper with both its suppliers and clients. In 2000, an organization that uses paper took on average 7.4 days to move a purchase from request to approval, but if done electronically, today it takes only 1.5 days. Advanced ITs such as ERP software can capture cost savings. Beyond cost savings, SCM software can also help increase productivity, efficiency of inventory controls, and increase sales through closer relationships and faster delivery times.

2.2 Use of ICT and Internet among SMEs in Europe

Today, ICTs and economic development are closely linked. The European project outlined in Lisbon in 2000 makes the information society a major objective of growth policies, emphasizing that "The shift to a digital, knowledge-based economy, prompted by new goods and services, will be a powerful engine for growth, competitiveness and job".



ICTs provide all businesses with opportunities for development, innovation and improved productivity. More specifically, where SMEs are concerned, it is information exchange tools that increase the efficiency of traditional exchange procedures, both within the company and with suppliers and customers. ICTs afford companies considerable potential to extend and give structure to the scope of their influence at very little cost. For example, SMEs can gain a new shop window (e-commerce), but also offer new online services. ICTs also give SMEs the opportunity to benefit from or provide existing services remotely at lower cost, in particular through VoIP

Nevertheless, this positive influence of ICTs does not seem to be perceived quite as easily by the companies themselves. The E-Business Watch report¹⁰² reveals that only a minority of companies recognize that ICTs have an impact in terms of increased income, improved company processes and productivity (33%, 44% and 40% respectively, all sizes of firms combined). In such a context, the majority of players that are reticent about e-business cite the size of their business as an explanatory factor (68%). But other significant hindering factors seem to come into play as well: cost (40% of businesses, all sizes combined), complexity (35%), security concerns (33%).

The most marked differences appear when we look at usages. For example, applications integrated into internal procedures appear to be less developed in small enterprises than in large ones: just 11% of small businesses have a document management system, compared with 42% of large ones. Whilst 68% of large companies make use of online ordering facilities, just 54% of small businesses do the same. Finally, just 14% of small businesses monitor working hours or production times electronically compared with 38% of large companies.

These figures, therefore, highlight a significant disparity between ICT equipment and usages as a function of company size. Nevertheless, as e-Business Watch underlines "It is debatable whether small companies really need the same powerful solutions as large firms in order to achieve the same benefits. In a small company, information management and e-business can possibly be also effectively and efficiently achieved by the use of less sophisticated and less expensive systems". Although this assertion is entirely

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¹⁰² www.ebusiness-watch.org



relevant, it does not apply to all of a company's activities and this lag may remain worrying.

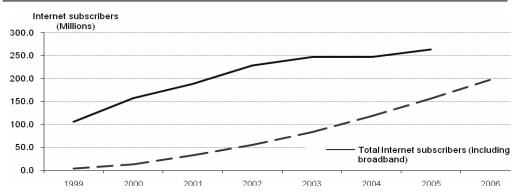
Internet access is also commonplace among SMEs. While Internet penetration is generally higher in larger enterprises, the gap between larger firms and SMEs is narrowing. Computers and access to the Internet have become common in most OECD countries, but sales and purchases over the Internet have yet to take off. While available data suggest that electronic commerce is growing, it still accounts for a relatively small proportion of economic activity for firms of all sizes. Purchasing over the Internet is more common than selling. The table below presents the internet penetration in our region and the graph shows the trend of internet subscribers' number during the years.

Table 1. Internet Penetration in Balkan' Countries - 2008

Country	No.	No. users	% of users	Broadband
	population			users
Albania	3,087,159	471,200	15.3%	300
Greece	10,706,290	3,800,000	35.5%	787,000
Macedonia	2,056,894	392,671	19.1%	36,500
Serbia	10,087,181	1,400,000	13.9%	121,700
Montenegro	665,734	266,000	40.0%	25,800
Bulgaria	7,322,858	2,200,000	28.7%	384,300
Romania	22,276,056	7,000,000	31.4%	1,796,300

Graph 1. Internet Subscribers during the years





Source: OECD Key ICT Indicators [www.oecd.org/sti/ICTindicators]

2.3 Towards e-business integration

Some businesses, mainly early adopters of e-commerce, are entering the next stage of ICT use, e-business. They have begun to engage in increasingly sophisticated uses of ICT, involving business process reengineering and more complex technology. In such firms, B2C and B2B e-commerce are components of an overall e-business strategy. External relations with customers as well as internal processes are being linked. Marketing and sales, logistics and delivery, after-sales service, supply chain management and other business functions are integrated in an overall e-business strategy.

Most SMEs appear still to be at a stage where establishing a Web site or adopting e-commerce is

the main issue. Successful integration of external and internal business processes in e-business necessitates organizational and management changes which may entail proportionally greater costs and risks for SMEs. In addition, smaller firms may have fewer incentives to integrate their business processes than larger firms, which have more complex business processes and resources to harmonize and co-ordinate. It may therefore take more time and resources for SMEs to adopt e-business strategies. However, in the near future, B2C and B2B electronic commerce will have to become components of SMEs' overall e-business strategy and "normal" business processes that are supported by ICTs and carried out on electronic networks.

In relation to assisting SMEs to integrate e-business into their entire business process, there could also be more emphasis on integrating e-government into the business process. E-business will have greater appeal to SMEs if their B2B,



B2C and B2G activities can be more closely integrated. Making use of e-government initiatives as an incentive for SMEs to go online is crucial but again, these need to be seamless and integrated into business activities more generally.

2.4 ICT adoption and firm performance

Despite the potential benefits of ICT and e-commerce, there is debate about whether and how their adoption improves firm performance. Use of and investment in ICT requires complementary investments in skills, organization and innovation and investment and change entails risks and costs as well as bringing potential benefits. While many studies point to the possibility of market expansion as a major benefit for SMEs, larger businesses can also expand into areas in which SMEs dominated. Moreover, it is not easy for SMEs to implement and operate an on-line business, as this involves complementary costs for training and organizational changes as well as direct costs of investing in hardware and software solutions.

While many studies provide evidence of the positive effects of ICT adoption on firm performance, others have shown no relation between computer use and firm performance. Recent OECD analysis shows the impacts of ICTs and e-business strategies on firm performance are positive overall, but that ICTs are not a panacea in themselves. The OECD's Electronic Commerce Business Impacts Project (EBIP) studied a set of 220 early successful adopters of ebusiness strategies in a range of established sectors in eleven different countries. This study showed the positive impacts of e-commerce on their turnover and profitability and to a lesser extent on employment, most notably when e-commerce is part of larger business strategies of firms (OECD, 2002a). Further work by researchers in 13 OECD countries based on large scale statistical surveys provides evidence that the use of ICT can contribute to improved firm performance, in terms of increased market share, expanded product range, customized products and better response to client demand. Moreover, it indicates that ICT may help reduce inefficiency in the use of capital and labor, e.g. by reducing inventories, and that the more customers or firms are connected to the network, the greater the benefits (spillover effects). However, the analysis shows that complementary investments in



skills, organizational change and innovation are key to making ICT work, and that the use of ICT affects firm performance primarily when accompanied by other changes and investments and that without these, the economic impact of ICT may be limited.

3. THE ALBANIAN ICT FRAMEWORK

3.1 Albania - A Brief Economic Profile

Economic reforms of the first decade of transition were much focused on the areas of privatization, deregulation and liberalization efforts in all sectors of the economy. Although much progress was achieved, as it is broadly evidences in numerous reports, the crisis of 1997 witnessed the fragilities of the reform progress and the limitations in other so called second generation reform directions. Recognizing the need for deepening of the reforms, the current economic program embodied in different government documents, stresses the government's intention to maintain economic stability, accelerate structural reform and step up the fight against crime and corruption.

Albania's nominal GDP¹⁰³ in 2007 totaled 982.2 billion lek (or 8.2 billion Euro), while maintaining a growth rate of six percent (rate of growth in 2005 was also six percent). This strong growth was based primarily on expansion in the services, construction, and transport sectors.

The Albanian economy is open to trade. Exports and imports continue to grow each year, but import growth has outpaced that of export growth. The flow of goods in 2005 indicates that imports totaled 261,710 billion lek (or 2.2 billion Euro), while exports totaled 65,766 billion lek (or 540 million Euro)¹⁰⁴. The EU remains Albania's main commercial partner, accounting for 87.1 % of exports and 59.8 % of imports. The main trade partners remain Italy and Greece, whose represent 27.5 and 13.7 % of imports and 72.9 and 9.2 % of exports respectively¹⁰⁵.

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¹⁰³ Ministry of Finance, Macroeconomic Department, Economy in Focus, May 2007

¹⁰⁴ INSTAT – Albania in Figures, July 2006

¹⁰⁵ INSTAT – Quarterly Statistical Buletin, no.1, 2007



3.2 The Albanian ICT policy framework

This section provides a brief overview of the ICT research environment in Albania. The Government of the Republic of Albania considers the development of the information society and the use and deployment of ICT in the country as one of the highest priorities in achieving higher living standards and economic growth. The Albanian National ICT Strategy¹⁰⁶ builds on the many individual and sector e-initiatives already being implemented by other development organizations, such as e-governance activities led by the Italian Government, World Bank, European Union, DFID and USAID, e-vocation, e-education, and information activities led by the Open Society Institute and GTZ, as well as many other cross-cutting ICT activities supported by these and other donors. The goals of the National ICT Strategy are to exploit the potential of ICT in order to promote human development in the country, to support growth and sustainable development and to increase living standards for the whole population. ICT should be used to create employment, improve working conditions, and motivate highly educated individuals to stay in the country. National and local needs and circumstances will be an important factor to be considered for the development of the Information Society in Albania.

The ICT sector in Albanian has had considerable growth these last years. It's notable to mention the number of the ICT companies created and active in the last five years. The telecommunications is the sector that has experienced spectacular growth during the last years due to the entry of and heavy investment by two new mobile companies. However, telephone density remains low and the potential for high rates of growth is still present. Demand continues to increase for physical facilities and equipment to meet the telecom companies' expansion needs.

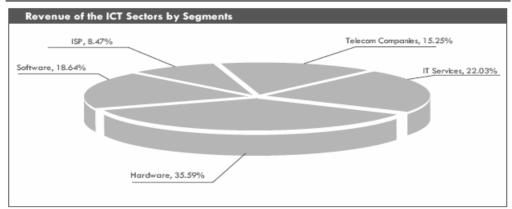
The following chart gives a better view of the revenue of ICT Sectors by Segments¹⁰⁷.

"Information and Communication Technologies Strategy" UNDP, http://www.undp.org.al/index.php?page=projects/project&id=32, http://www.ictd.org.al

Statistics published by the Chamber of Commerce of Tirana and Albania,

http://www.cci.gov.al





The majority of products are imported from abroad. However, there is a strong tendency and increase in the ICT sector to adapt products to local needs. Some programs have been adapted to the local language. There is a variety of choices with regard to equipment and programs, which are accessible and affordable for the majority of small and medium enterprises as well as for many individuals. The average annual investment in ICT is about 2.5-3 million USD (or 2.2 million Euro) and all ICT revenues total about 20 million USD (or 15 million Euro)¹⁰⁸.

In spite of achievements that the Albanian ICT Sector has made in recent years, technological needs remain at a considerable level. There is the need for countrywide Internet coverage. There is a need for a fast and reliable network infrastructure. Scientific research activities in Albania are very limited too, primarily due to the lack of infrastructure and the insufficiency of financial resources. A considerable number of qualified specialists have left scientific research institutions and most of them have emigrated abroad. Specialized ICT departments in particular have suffered considerably from "brain drain". Nevertheless, in the context of integrating Euro-Atlantic processes, the academic community has been involved in some important regional projects funded by the European Commission. The country's participation in the European Commission's Framework Program 7, as an important activity that encourages European integration, is supported through participation in SEE-ERA and IDEALIST projects. Main projects in ICT research in the country both in national and international level are focuses mainly in e-government,

Republic of Albania, Electronic Assessment – Report on the status of information technology and communications in Albania, 2002-2005

e-health, e-learning and e-infrastructure. Main ICT research capacities of research organizations in Albania includes: ICT supporting businesses and industry; ICT meeting societal challenges for governments; Software, grids, security and dependability; ICT for content, creativity and personal development; ICT meeting societal challenges for health; etc. During 2007, the Council of Ministers has approved Albania status as associated to FP7. In order to associate the country to the FP7 Program, the government approved a draft for financing 200.000 Euro.

ICT should be used to create employment, to improve working conditions, and to motivate highly educated individuals to stay in Albania. National and local needs and circumstances will be an important factor to be considered for the development of the Information Society in Albania.

Besides all these efforts, Albania still lacks a real official ICT structure. One of the measures taken recently from the Albanian Council of Ministers is the creation of the "National Agency of Information Society and Electronic Government" (AKSHI), which will prepare a strategic policy, coordinate and supervise the implementation of the programs and projects for Information Society.

Some duties that will be performed by the agency are:

- o To solicit and support the development of e-business.
- To solicit and support online services, internet, and computer usage by Albanian citizens
- Collaboration with other national and international institutions, civil society, and the private sector in the field of Information Society.

3.3 An overview of the SME sector

The backbone of the Albanian economy is formed by the large and expanding sector of small companies. SMEs have a crucial role in the transition process. SMEs already make up the vast majority of private businesses operating in Albania and because of their size and adaptability are likely to be the main source of employment generation. Improving the business environment for SME development is a key objective of the policy framework in Albania.



The SME sector accounted for about 99%109 of the total number of active private enterprises in 2005, contributing 64% to the GDP and representing 66% of total employment. SMEs' access to bank credit has improved, but remains below needed requirements.

The national definition of SME: Article IV of the law nr. 8957, date 17-10-2002 "On Small and Medium Enterprises" states the definition of the micro/small and medium enterprises applied in Albania. The micro enterprises definition embodies only the staff headcount criteria – and states that entities employing fewer than 5 persons will be classified as micro enterprises. Small and micro enterprises definition except the staff headcount criteria add to the definition financial indicators as those of the turnover and balance sheet as well as the ownership and financial independency elements.

- Small enterprises are those entities that employ 6-20 persons, and have an annual turnover that does not exceed 40 million Leke (around 320 thousand Euro). The capital of the enterprise should be owned by subjects that are classified under this law as small enterprises as well.
- o Medium enterprises are entities that employ 21-80 persons; the annual turnover of the entity does not exceed 80 million Leke (around 620 thousand Euro) and at least 25% of the capital of the firm does not belong to an enterprise that is not small and medium.

The logic of defining SME in Albania is consistent with the EU definition, but because of the economy size and performance the criterion do differ. The number of employees is the main criteria employed in both definitions, and this is seconded by the turnover and balance sheet figures.

Agency for the Development of Small & Medium Enterprises has the basic aim to support the setting-up of the SMEs according to markets needs, to foster the capabilities of human resources for the specific businesses, in order to promote the development of the SMEs in the country. The agency was established in 1991. Among a variety of tasks and missions the agency should:

- o provide support for SMEs in the process of acquiring new technologies,
- o should establish an information system with data of importance for SMEs,
- o and should contribute to the transfer of knowledge and technologies.

¹⁰⁹ Albania 2006, Progress Report, Ministry of Integration



So far, the agencies failed to support the commercialization of new technologies and products developed in R&D sector. Nevertheless, the work of this Agency seems very effective and is continuing with a positive trend.

The Albanian authorities are increasing the support given to the SME sector, in recognition of the growing importance of SMEs to the national economy. The deepening of reforms in line with the government action plan has produced a more encouraging environment to develop private enterprise. Administrative barriers were lowered, communication between the private and the public sector has improved, governance has been strengthened and market opportunities are broadening.

The groundwork on developing a favourable regulatory framework for SME's has made substantial progress through Albania's participation, since 2003, in the European Charter for Small Enterprises process.

Albania is the fifth country of the group of EU candidate and potential candidate countries to join an important part of the EU's Competitiveness and Innovation Programme (CIP). Under the CIP, the European Commission promotes innovation, entrepreneurship and growth in SMEs. On 27 June 2008, European Commission Vice President Günter Verheugen and Mr Genc Ruli, Minister for Economy, Trade and Energy of the Republic of Albania, signed a Memorandum of Understanding formalizing the Republic's entry to the EIP, the entrepreneurship and innovation pillar of the CIP.

Commission Vice-President Günter Verheugen, responsible for enterprise and industry policy has said: "We are creating a win-win situation for Albania and for the EU. The decision of Albania to join the CIP confirms the European aspirations of Albania and the progress already achieved. We also share the understanding that the challenges of today's global world are best faced by integration and ever closer co-operation."

Albania will be able to take part in the framework of the European Charter for Small Enterprises by making direct ties with EU Member States and learning from good practice in promoting entrepreneurship and innovation in all its various forms. This will strengthen Albania's own policy and delivery capability for the benefit of SMEs. Albanian policy stakeholders and experts can now join the relevant policy groups which the European Commission will set up under



CIP to assist to develop an SME friendly policy, which is key to achieve sustainable growth and more and better employment opportunities. It is another step to bring Albania, which has an EU Membership perspective closer to the EU. It will benefit Albanian SMEs as it will benefit those SMEs from the EU with business ties to Albania, to develop together.

3.4 Why have so few SMEs adopted ICT?

Given the benefits that ICT can bring to SMEs, SMEs in most developing countries in Europe still have been slow to adopt it. In Albania, better part of SMEs still use basic communication technology such as fixed phone line and fax, and only a small part use CRM software. Meanwhile, their counterparts in developed countries are using advanced ITs. One cause of limited adoption is the lack of dynamism between ICT firms and SMEs outside of the ICT sector. ICT firms have not provided goods and services tailored to SMEs in the past because demand from SMEs has been low. However, their demand is low in part because ICT products available in the market are too complex and expensive. The result is a vicious cycle of limited supply and limited demand that ultimately excludes SMEs from the benefits of ICT. Other factors also contribute to the limited supply and demand of ICT for SMEs:

Supply Side

1. Poor communications infrastructure results in limited access and higher costs

Albania has poor communications infrastructure. Outdated equipment and state-owned monopolies often result in expensive charges and limited coverage, especially in rural areas. This discourages SMEs from adopting even the basic ICT of fixed lines or mobile phones.

2. Most advanced ICT products are designed for larger firms and not SMFs

ICT firms used to target large enterprises because they had a larger budget and were willing to pay for more complex ICT services. Their products are often too expensive and too complex for SME users. However, competition in this market is making firms – both large and small – turn their attention

towards the untapped SME market. A recent study¹¹⁰ showed that software companies have as their primary market: retail and wholesale, education and science, SMEs (34%), telecommunications finance, industry, and local government.

Demand Side

1. Limited ICT literacy of SME owners hinders their ability to choose the appropriate technology and understand the concrete benefits it can bring to their business

Many SME owners are unfamiliar with operating a computer, are skeptical of the concrete benefits to its core business, and have the stereotype that ICT is only for larger companies. Even if they have the will and financial resources to integrate ICT into their core business, SME owners are often at a loss when needing to choose the most appropriate and cost-efficient product.

- **2.** Limited ICT literacy of employees in SMEs hinders ICT adoption Even if SME owners have a strategic understanding of why they should adopt ICT, their staff is often untrained. Training costs both time and money resources that SMEs usually lack.
- 3. Adopting ICT is an adaptive challenge, not a technical challenge Adopting ICT is a difficult task for companies of all sizes, whether they are in developed or developing countries. In fact, a lot of management literature focuses on the organizational changes that firms must go through in order to effectively adopt ICT because they change the way firms do business. While the changes may be beneficial in the long run, they often hurt one department and strengthen another. Thus, SME owners are often reluctant to bring their firm through a learning curve that may be difficult and costly.
- **4.** Lack of financing options limits SME ability to purchase ICT Lack of financing and appropriate technology is clearly a major handicap to developing country producers and exporters, and it inhibits developing countries from deriving full benefits from their trade rights.

Rubens Ricupero, Secretary General of UNCTAD, 18 February 2002, Geneva

¹¹⁰ ICT Market in Albania: Specific Research on ICT Sector in Tirana, Shkodra and Korca (2007), S. 29.



SMEs usually have limited ability to make larger investments in their firm due to the lack of financing options. Given the financial squeeze, IT budgets are usually small or nonexistent. In addition, adopting ICT is not a one-time cost because there are ongoing costs of maintenance, upgrading, and human capacity building.

5. Lack of financial and legal infrastructure

SMEs may still be hesitant to engage in e-commerce due to undeveloped legal policy for electronic payment and security issues. Many Albanian banks, a key link in the e-commerce chain, have not even adopted online banking in their own systems.

In the end, the definite costs of identifying the right goods and/or service, finding staff to manage it, taking the company up the learning curve, and obtaining financial resources are not perceived to justify benefits.

3.5 Conclusion

Our studies were intended to identify problems and needs rather than to provide solutions or answers. Nonetheless, there are two clear and complementary areas for action. First, IT manufacturers and vendors could make concerted efforts to be sources of solutions and not just of problems. Second, small business owners would benefit from greater awareness of the sources of

sound information that would help solve IT problems and reduce the pain produced. In sum, there is work for both IT leaders and small business IT users if entrepreneurial small businesses in Albania are to obtain the greatest benefits from IT innovation and development.

References

- 1. Agolli, E. (2007a): Review of the S&T Report in January 2007. see-science.eu.
- 2. Agolli, E. (2007b): Science, Technology and Innovation Indicators: Trends and Challenges in South Eastern Europe.
- 3. Bushati, S (2007): Review of the S&T country Report in Autumn 2007 for see-science.eu.
- 4. European Commission (2007): Albania 2007 Progress Report.



- 5. Gajo, A. (2007): Current and Future Research Pogramme of Centre for Research and Development, Tirana, Albania.
- 6. Gjinko, G (2007): Review of the S&T Report in Autumn 2007 for see_ccience.eu.
- 7. Government of the Republic of Albania (1994): Low on Science Policy and Technological Development.
- 8. ICBSS (2006): The Science, Technology and Innovation System in Republic of Albania.
- 9. INA-Great-IST Final Report.
- 10. INIMA (2006): INIMA-Fields of Activity. OECD (2006): Summary of the key macroeconomic indicators in Southeast Europe.
- 11. Preda, G. (2007): Southeast Europe turns "brain drain" into "gain".
- 12. Republic of Albania (2003): National Information and Communacation Technologies Strategy.
- 13. SBRA-Great-IST (2007): Links between IST research and business: impact assessment and recommendations.
- 14. see-scence.eu (2007): EU and Western Balkans Countries sign visa deal.
- 15. UNESCO/UNDP (1996): Measuring The Development of Science and Technology In A Charing Economy: The Case of Albania.
- 16. Xhepa, S. and A. Mancellari (2003): The competitiveness environment in Albania.