LIBERALISATION ON TELECOM MARKET
IN BOSNIA AND HERZEGOVINA

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Abstract: The subject of this paper is evaluation of competition in the process of liberalisation on telecom market in Bosnia and Herzegovina (B&H). After the short description of liberalisation background in the field of telecommunication it will be presented an illustration of current situation in fixed telephony and mobile communication, as well as in other networks and services. The regulatory framework in telecommunication will be presented from legislation aspect and role of Communication Regulatory Agency (RAK) and other important subjects in the environment. In the course of evolution of regulation in telecommunications and in other network industries there are three phases in market development: 1) monopoly, 2) monopoly and competition and 3) full competition. This paper will focus on some conflicting priorities in the Phase 2 in B&H. Identification of obstacles in liberalisation is the first step for creating strategies for improvement of telecom companies competitiveness and the higher level of telecom market liberalisation in B&H.

Keywords: telecommunications, liberalisation, regulation, competition

1. Brief Historical Background

By the late 1980s, B&H had relatively modern telecom network, with a high degree of digitalization. There were about 750,000 subscribers, representing about 15,5 lines per 100 inhabitants. The monopoly operator the Post, Telegraph and Telephone (PTT) Company provided basic telecom services to subscribers. There were 6,000 international lines, including 700 direct links with countries out of the former Yugoslavia. Most international calls were routed through international telephone exchanges in Belgrade and Zagreb.

As a strategic target during the war, the Telecom Network suffered extensive damage to transmission and switching equipment, buildings, microwave towers, and overhead cables. At the end of the war, damage assessment was estimated as follows: subscriber lines had decreased almost 45 percent; exchange capacity decreased 25 percent; 40 percent of transmission routes and 65 percent of the long-distance network had been destroyed. The cost of restoring the sector was estimated by Swedtel Consulting
at US$ 222 million. An additional US$ 132 million would be required for expansion and modernization of the system [2].

2. The Competition Situation

2.1. Current Situation

Establishing a countrywide B&H telecom market has taken place gradually and is far from complete. The adoption of the First State Telecom Sector Policy at the end of 2000 was an important first step. This identifies phased liberalisation and privatisation of the incumbent operators as the best model through which B&H telecom operators can attract investment and provide necessary services. The adoption of the State Communications Law in 2002 and the establishment of an independent regulator Communications Regulatory Agency (RAK) by the High Representative\(^1\) in 2001 completed the legal and institutional framework.

All telecom services except international telephony have been liberalized. From the beginning of 2006 new entrants will be allowed to provide international telephone services. However, the three incumbent telecom operators still enjoy *de facto* monopolies of fixed network operations in their operating areas.

Competition exists within the mobile sector, where each of the three licensee operators is required to provide countrywide coverage by April 2004.

In accordance with generally accepted expert opinion that telecommunication services are provided in the best way in a competitive environment, the final objective of the Telecommunication Sector Policy is full liberalisation of services. Such liberalisation will create prerequisites for the start up of private investment into public networks and services [10]. Telecom operators invest in the infrastructures, not only in services downstream.

Since before the end of 2005 the objectives with regard to universal service need to be achieved and tariffs adjusted to the principle of cost orientation so that international voice services will be liberalised at latest before 1st of January 2006.

2.2. Fixed Line Telephony

The former PTT company was divided into three state owned companies: two within the Federation and based in Sarajevo (BH Telecom) and Mostar (HT Mostar), and one in Republic Srpska based in Banja Luka (Telekom Srpske). The three telecom operators have the licences for national voice services. It means that the licences have given them the rights to extend their operations on whole territory of B&H, but it is not the obligation. Also they have exclusive licences for international voice services until the end of 2005.

As can be seen in Table 1, previous period was characterised with a continued growth of fixed telephony subscribers in B&H.

\(^1\) Decision of the High Representative No.52/02, Sarajevo, 2 March 2001
Table 1. Growth of number of fixed telephony subscribers in B&H

<table>
<thead>
<tr>
<th></th>
<th>Q4 2001</th>
<th>Q4 2002</th>
<th>Q4 2003</th>
<th>Q4 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of subscribers</td>
<td>849.027</td>
<td>904.838</td>
<td>938.019</td>
<td>962.172</td>
</tr>
<tr>
<td>Growth Index</td>
<td>-</td>
<td>107</td>
<td>104</td>
<td>103</td>
</tr>
<tr>
<td>ID (penetration)</td>
<td>22,3</td>
<td>23,8</td>
<td>24,7</td>
<td>25,3</td>
</tr>
</tbody>
</table>

Q4=4th quarter of the year in question; ID=Indicator of development
Source: RAK of B&H, Data base, 2001-2004

The telecom services have been provided in an efficient way in fixed line telephony, but level of fixed telephony development is low (penetration rate about 25%).

2.3. Mobile Telephony

There are three mobile operators that got licences in 2001 and 2004 for the provisioning GSM services on the mobile market in B&H. In complying with the prescribed obligations laid down in the awarded licences, the operators are obliged to rollout their respective networks and to offer their services to users in all parts of B&H. It means that they are obliged to cover 90% inhabitants and 80% main roads on the whole territory in B&H. By this, the liberalisation of mobile market have been beginning and it was created terms and conditions for competition on the mobile market.

This was resulted with an intensive development of operators; important lower prices of mobile network access, with introduction new services and particularly with introduction different package arrangement. Numbers of mobile subscribers have exceeded number of fixed telephone subscribers.

The Telecom Sector Policy document adopted by the Council of Ministers, it is envisaged, by assessing the range and strength of the available market, that until the end of 2005 the number of mobile operators is to be limited to three. Hence the mobile telephony services, as a specific way to access voice services, are completely liberalised.

The data presented in Table 2 show that the mobile communications market in B&H is constantly growing from the aspect of the number of subscribers.

Table 2. Growth of number of mobile telephony subscribers in B&H

<table>
<thead>
<tr>
<th></th>
<th>Q4 2001</th>
<th>Q4 2002</th>
<th>Q4 2003</th>
<th>Q4 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of subscribers</td>
<td>435.000</td>
<td>749.000</td>
<td>1.050.000</td>
<td>1.324.641</td>
</tr>
<tr>
<td>Growth Index</td>
<td>166</td>
<td>172</td>
<td>140</td>
<td>126</td>
</tr>
<tr>
<td>ID (penetration)</td>
<td>11,4</td>
<td>19,7</td>
<td>27,6</td>
<td>35,0</td>
</tr>
</tbody>
</table>

Q4=4th quarter of the year in question; ID=Indicator of development
Source: RAK of B&H, Database, 2001-2004

The mobile communications market in B&H us characterised with a high level of demand, existence of potential markets and permanent growth, for which we predict to be continued in the future.
2.4. Other Networks and Services

The three major telecom operators in B&H are also Internet service providers (ISPs) in their areas of operations. They are thus vertically integrated. Apart from telecom operators, some independent companies and institutions appeared as ISPs as well. The biggest Internet service providers in the country are BiHNet, HTNet, and TeoITS. They use the infrastructure from their parent companies. There are also many local Internet service providers, which are using the infrastructure capacity of the major operators. The standard ISP package includes: access to Internet by dial-up connection, leased lines or wireless modem, an e-mail account, ftp, web hosting, etc.

The provision of Internet services shall be subject to a licence until the telecommunications market is fully liberalised as determined by the Council of Ministers’ sector policy [6]. There are 65 network operators and 41 ISP’s operating in B&H. This clearly shows the right approach of the RAK on realisation of the telecommunications Sector Policy related to liberalisation of telecommunications [3]. The main characteristic is rapid development of services of cable distribution of TV programmes, so that, for a relatively short time, a majority of municipalities in B&H is covered with this service.

3. The Regulatory Environment in Telecommunications Sector

Two essential legislative documents in B&H in the field of communications are Communications Law and Telecommunications Sector Policy. Also RAK has issued rules, licences, and decisions. A short list with description of key documents follows:

A) Law on Communications, November, 2002
The Law regulates communications in B&H and the establishment and work of the RAK in accordance with the Constitution. The Constitution of B&H provides for the establishment and operation of common and international communications facilities.

B) Telecommunications Sector Policy, March 2002
The document was adopted by the Council of the Ministers in B&H. The main goals of policy are to ensure: continuity of faster telecommunication information and communication technologies development in order to provide complete telecommunication services under competitive conditions according to defined quality for all the citizens of B&H, attract investment and maximum benefit for the state and its citizens.

C) Communications Regulatory Agency (RAK)
The RAK is the first unified broadcast and telecommunications regulatory agency in the region that operates at state level across the country. It is formed by combining of competences of two agencies: Telecommunications Regulatory Agency (TRA) and Independent Media Commission (IMC). RAK is organised into 3 main divisions - broadcast, telecommunications, and spectrum and has 5 departments. Also, RAK has a governing council which meets quarterly. Council of Agency is appointed by parliament from a short list of candidates drawn up by the existing Council. RAK is independent of any Ministries, but responsible to implement the policy defined by Council of Ministers.

The main actors in the field of communications are (see Figure 1):

- The Parliament of B&H is responsible for nomination of Council members of RAK and adoption of RAK budget;
- The Council of Ministers is responsible for developing and adopting policy in line with existing legislation and determining the representation of B&H in international forums concerned with communications. It makes creation Law and Policy through responsible ministries;

**Figure 1. Roles of Telecom Sector in B&H**

Source: Fikret Kasumagic, (2003): “Liberalisation of the Telecom Sector in B&H” - Presentation, slide 5, Workshop, Sarajevo

- Communications Regulatory Agency acts as an independent national regulatory authority responsible for broadcast and telecommunications.

4. Some Conflicting Priorities in B&H

There are three phases in developing telecom market: 1) monopoly, 2) monopoly and competition and 3) full competition (see Figure 2).

**Ten conflicting priorities:**
1. Short-term vs longer-term objectives
2. Efficiency vs equity objectives
3. Competition vs monopoly
4. Slow vs fast liberalisation
5. Public vs private ownership
6. Sector-specific regulation vs general competition rules
7. Rules vs discretion
8. Permanent vs temporary regulation
9. Centralized vs decentralized regulation
10. Light-handed vs heavy-handed regulation

**Figure 2. The Evolution of Regulation Over Three Phases of Market Structure**
The coexistence of competition and monopoly, competition between public and private sector firms, interconnection and the setting of public service objectives raise many conflicting priorities for regulatory policy makers during Phase 2. Ten conflicting priorities can be identified as characterizing the regulatory environment in the field of telecommunication [1]. In the next sections it will be presented at first six priorities in telecommunication market in B&H.

4.1. Short-term versus long-term objectives

The telecom market in B&H is an “emerging market” so it is very important achieving the objectives on the long term. There are four long term objectives on telecom market in B&H:

4.1.1. Introducing competition and full liberalisation:

Competition is an essential ingredient in a successful market economy. Law on Competition has established the principles and set up the competent bodies aiming at maintaining and stimulating economic competition to ensure free determination of prices for goods and services by competition between legal and physical persons [7].

4.1.2. Foreign direct investments (FDI):

There is a rudimentary legal framework for foreign investment, under which there is no discrimination against foreign as opposed to domestic investment in B&H. The Law on Policy for Foreign Direct Investments regulates FDI and is designed to provide guarantees and legal security for investments. The Foreign Investment Promotion Agency in B&H [www.fipa.gov.ba] exists to encourage and facilitate FDI. FDI will be realized thought the process of privatisation.

4.1.3. Creating strategy for implementing information and communication technologies (ICTs):

The proper development of the telecommunication sector and of ICTs is a basis for the development of overall economy in this society as well as its integration into the international community concerning exchange of information. Therefore it is extremely important to focus attention to the development of ICTs in B&H. The Council of Ministers has adopted strategy and programme of development of the sector defining strategic objectives, programme and activities.

4.1.4. Privatisation of telecom sector:

It will be spoken about privatisation in the section 4.5.

4.2. Efficiency versus Equity Objectives

As in politics and marriage, most disputes and discussions about interconnection ultimately come down to economics. Incumbents want to protect their market shares, while new competitors need to establish a profitable market presence. The outcomes of policy decisions on interconnection often go a long way toward determining how successful different operators will be in achieving those goals. The objective of
regulators, however, is to establish an interconnection regime that is as economically neutral. Table 3 summarizes the key issues of interconnection in B&H.

Table 3. Interconnection Issues (II) in B&H

<table>
<thead>
<tr>
<th>Key Issues</th>
<th>Currently Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are II agreements subject to express regulator or individual negotiation?</td>
<td>Agreements are subject to individual negotiation. Operator’s agreement has been approved by the RAK.</td>
</tr>
<tr>
<td>Are there special rules for dominant operators or industry?</td>
<td>A RAK Rule No.16/02 on interconnection has been adopted.</td>
</tr>
<tr>
<td>Are there specific network locations where II must take place?</td>
<td>No, subject to principle of non-discrimination. Interconnection should be offered wherever sought unless not technically feasible.</td>
</tr>
<tr>
<td>Is there unbundled access to internal network functions?</td>
<td>There is a general obligation to offer interconnection in a unbundled form. RAK going to make a rule about these issues.</td>
</tr>
<tr>
<td>Is there preferred pricing formula for II charges?</td>
<td>No, but LRAIC-based costing approach was suggested.</td>
</tr>
<tr>
<td>Are there RIOs available?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Good interconnection arrangements also promote efficient infrastructure development, providing proper incentives for operators to build their own networks and to use parts of other networks. Inappropriate interconnection requirements, on the other hand, can act as barriers to competitive entry, undermining investment in new infrastructure and depriving the public of innovative and attractive service options [4].

Starting activities on liberalisation of the telecom sector in B&H and increasing competition and choices for communications services are going in parallel as to create a harmonized regulatory framework which secures the delivery of universal service.

Telecom market in B&H can attain both goals (efficiency and equity) with implementation interconnection regime and USO such as defined in Telecom sector policy.

4.3. Competition versus Monopoly

Phase 2 of the market development (telecom market in B&H) involves the greatest intensity of regulation, reflecting the presence of both monopoly and competition. In this phase the network infrastructure can be provided by a monopoly and through competition. Infrastructure may be under monopoly where natural monopoly elements are significant or on a competitive basis if there is diminished significance of the natural monopoly elements in network industry. In the second part of 2005 it would be feasible to introduce infrastructure competition in B&H, by implementing the Rule on interconnection. Such a move will not only reduce start up costs as existing infrastructure may be utilised for telecom services but may speed up introduction of competition in fixed line services.
4.4. Slow versus Fast Liberalisation

Slow or fast liberalisation is a very important issue in many countries in Europe, but slow liberalisation is a reality in B&H. Taking into account the degree of development and inadequate penetration of fixed telephony in B&H and provision of general objectives of the sector privatisation, liberalisation of the sector was done in phases: a) by the end of 2002–liberalisation of non-voice telephony services (data transmission and Internet services)– *realized*; b) by the end of June 2002–domestic voice telephone services– *realized*; c) by the end of 2005 – international voice telephone services– *non realized*.

GSM services as a specific way of access to voice services have been fully liberalized. In order to provide for optimum frequency spectrum utilization and taking into account the size and the power of the available market, the number of operators in B&H before 2005 is limited to three.

4.5. Public versus Private Ownership

Respecting the level of development of B&H telecom sector and interest of the state to provide, for both its citizens and its economy, conditions for long term, best quality and most modern telecommunication services, it is necessary it is necessary to make a selection of methods of telecommunication sector privatisation [10].

Public opinion has recently been increasingly clear–and this should be reflected in official policies–that the privatisation process needs to be conducted on an ongoing basis and that the major shareholders’ main focus should be on developing the telecom sector [11]. Table 4 shows that B&H lags behind in implementing of privatisation process and in capital inflow (FDI) in relation with other countries in environment. The telecom market in B&H has not the strategic investors yet.

<table>
<thead>
<tr>
<th>Country</th>
<th>Company</th>
<th>Year</th>
<th>Strategic investor</th>
<th>% section</th>
<th>FDI (mil. $)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>AMC</td>
<td>2000</td>
<td>Cosmote / Telenor</td>
<td>85 %</td>
<td>85</td>
</tr>
<tr>
<td>B&amp;H</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>BTC</td>
<td>1999</td>
<td>KPN&amp; OTE</td>
<td>51 %</td>
<td>500</td>
</tr>
<tr>
<td>Croatia</td>
<td>Croatian Telecom</td>
<td>1999</td>
<td>Deutsche Telekom</td>
<td>35 %</td>
<td>850</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2001</td>
<td></td>
<td>16 %</td>
<td>310</td>
</tr>
<tr>
<td>Macedonia</td>
<td>Makedonski</td>
<td>2001</td>
<td>DT (Matav)</td>
<td>51 %</td>
<td>340</td>
</tr>
<tr>
<td>Slovenia</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Serbia &amp; Montenegro</td>
<td>Telekom Serbija</td>
<td>1997</td>
<td>STET &amp; OTE</td>
<td>49 %</td>
<td>909</td>
</tr>
</tbody>
</table>

**Table 4. The Level of FDI in SEE Region (1997-2001)**

Source: Saric, N. (2003): Development of the Mobile Communications Market in Region of South Eastern Europe, p.135
The growing demand for more and better telecommunications services in developing countries in a context of tight fiscal constraints has prompted governments to turn to private investment for expanding and modernizing networks—and to reform legal and regulatory frameworks to allow private participation and competition. On the other hand privatisation is not necessary where there are: a) fair competition (including good competition authority), b) a stable regulatory framework, c) offer of a full range of services & technologies, d) consumer demand and affordability, e) sound investment capacity of operators, f) accounting transparency (outside audit), g) good management skills in public service and h) sound public finances. If a country fail to meet any of the eight criteria then it would be prudent to include privatisation as part of the liberalisation process. There is little margin of appreciation [9].

4.6. Sector-specific Regulation versus Application of General Competition Rules

The critical issues that are emerging in telecommunications relate to promoting competition: interconnection arrangements, revenue settlement, numbering plans, number portability, and this like. Although the implementation of pro-competition policies in telecommunications is sector-specific in important ways, the policy itself is essentially competition policy (case of B&H).

Also, the most of authors highlight that sector-specific regulation is likely to be optimal when there are large incumbent telecom operators operating in complex network industries [1]. In this evolution phase of telecom market in B&H it is very important to continue with sector-specific regulation, permanent, centralized and heavy handed regulation (see Figure 2, 7-10 ten conflicting priorities).

5. Obstacles to Liberalisation

In terms of economic liberalisation, B&H’s record has been rather positive. Liberalisation of the telecommunication sector has its positive dynamic. This is a crucial element in economic transition: it represents a major investment incentive, offering competitive telecom services; it advertises a business environment that meets European standards; and it also delivers tangible benefits of transition to citizens in the form of cheaper phone charges. It is expected that the privatisation process in general will be speeded up and made more efficient in the aftermath of the consolidation of the privatisation agencies in the B&H.

In recent empirical paper using a sample of 30 countries it was found that privatisation alone was uncorrelated with improvements in telecom sector, while privatisation combined with building regulatory capacity was [12].

However, slow process of privatisation exerts influence on speed of telecom sector liberalisation in B&H. Also, price reform is the key to any potential acceleration of the timetable for liberalisation.

6. Concluding Remarks

The current legal framework for telecommunications is set by a Communications Law of November 2002. The law is reportedly compatible with European standards. An independent regulatory body exists. There are three incumbent
telecom operators (BH Telecom, Telekom Srpske and HT Mostar) which have de facto monopolies of fixed network operations on their territory, but they published the Reference interconnection offers (RIOs) in November 2005. Also those mixed operators have competition in mobile telephony on whole territory. On this way the mobile telephony gives possibilities to offer fixed line services.

There is some competition within the mobile sector (where each operator is required to provide state-wide coverage within three years), and this provides some competition to the fixed network monopolies.

Having in place a regulatory authority prior to privatisation will facilitate improvements in the sector following privatisation. An incumbent telecom monopolist faces both the incentive and the means to prevent competition.

While the process of liberalisation has thus begun, the Council of Ministers has stressed the need for further measures leading to more competitive service provision. Further liberalisation would help B&H accelerate the availability of good quality communication services and the take-up of information and communication technologies.

References

Sadržaj: Tema ovog rada je ocjena konkurencije u procesu liberalizacije tržišta telekomunikacija u Bosni i Hercegovini (BiH). Nakon kratkog osvjeta na istoriju liberalizacije u sektoru telekomunikacija, bit će prikazano sadašnje stanje u fiksnoj telefoniji, mobilnim komunikacijama, kao i u drugim mrežama i uslugama. Regulatorni okvir u telekomunikacijama bit će prezentiran sa legislativnog aspekta, uloge Regulatorne agencije za komunikacije (RAK) i drugih značajnih subjekata u okruženju. U evoluciji regulacije u telekomunikacijama i drugim mrežnim industrijama postoje tri faze razvoja tržišta; 1) monopol, 2) monopol i konkurencija i 3) puna konkurencija. Ovaj rad biti fokusiran na neke od konfliktnih prioriteta u Fazi 2 u BiH. Identifikacija prepreka liberalizaciji predstavlja prvi korak u kreiranju strategija za unaprijeđenje telekom kompanija, konkurentnosti i viskog nivoa liberalizacije telekom tržišta u BiH.

Ključne riječi: telekomunikacije, liberalizacija, regulacija, konkurencija

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