Institut ekonomických studií

Fakulta sociálních věd, Universita Karlova Praha Referee report on the Bachelor/Master Thesis submitted to State Exam

Student Name:	Vojtěch Bartoš	
Thesis Supervisor Name:	Petr Gapko	
Thesis Title:	Analysis of International Mobile Roaming and the European International Roaming Regulation	

Overall Evaluation:

The reviewed thesis focus is on mobile telecommunications, particularly roaming regulation. The chosen theme is very actual and will become even more. Especially in last two years, after the new "Eurotariff" for roaming was introduced, the mobile communication is really up-to-date. In the next few years, as mobile communication will technically improve, the main focus may come to data roaming. The thesis is very technical in terms of roaming explanation and gives reader more than sufficient information about how roaming works.

In the second chapter (or first chapter after introduction), author introduces GSM technology as a whole and then focuses on roaming. Very interesting is the part describing roaming pricing techniques where author explains the fee structure. In the thesis, cost of roaming for a final user is divided into four different fees: Mobile Origination, Mobile (or Fixed) Termination, International Transfer Costs and Specific Roaming Costs. Author discusses several scenarios, how can roaming be performed. Each scenario has got a different fee structure. The chapter is a bit too long and all the explanations are written one would say more-than-necessary in detail. Another suggestion for further improvement of the thesis in this chapter would be to implement an UMTS (i. e. 3G network), explain how it works and compare its pricing to the pricing of described GSM technology.

In the third chapter, author describes a theory of roaming regulation. The whole chapter is descriptive and as in the previous chapter, it's a bit too long and detailed. The most interesting part of this chapter is a description of foreign operator choice. As a domestic operator cannot have the same transfer fees for every foreign counterparty and as a roaming phone call for a final user has to be priced the same when calling from one particular country but from different networks, it is essential for the domestic operator to convince the final user to choose the foreign network with the lowest transfer fee. The thesis describes a technology to allow this and compares the outcome of the technology with a manual selection. My only technical comment to this chapter concerns mathematical notation of costs for domestic operators. Author argues that costs for operators when the final user is allowed to choose manually are:

$$C = 0.5P \cdot IOT_A + 0.5P \cdot IOT_B$$

where IOT are transfer costs and P the population which is considered to consist of 1 user only (for simplicity). This is a bit strange argument as C is in fact not final costs for the domestic operator. Better explanation for C would be expected costs. Final costs would be either IOT_A or IOT_B and it is distributed binomially.

In the final chapter author describes history and present of international roaming regulation. Very interesting are author's own estimates of call prices using theory described in previous chapters.

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The whole thesis can be treated as a very detailed survey into the current situation of roaming regulation. Author's English is good but in the future research author should avoid expressions and phrases that are indeed used in spoken language but seem very strange when used in academic paper. Author uses relevant and up-to-date literature. Level of author's knowledge of described problem seems very deep but it is not necessary to always carry the whole knowledge into the thesis and flood a reader with a stake of detailed technical stuff. This over-explanation is the biggest problem of the thesis and should be avoided. Despite described notes the thesis is a high quality work and shows author's ability to handle a very complex issue. Due to this findings I suggest the thesis for a defense with grading "A" if defended properly.

SUMMARY OF POINTS AWARDED (for the explanation of categories and scale, please, see below):

CATEGORY	POINTS 25	
Quality of Research		
Clarity and Readability	8	
Content/Quality of Ideas	32	
Organization & Development	12	
Manuscript Form	4	
TOTAL POINTS	79	
LETTER GRADE	A	

Evaluated on: 13" June 2000