

Full Length Research Paper

Providing universal postal service in developing countries

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The need for faster and higher-quality communication, services and transport of goods has led to a reform of postal service activity. The goal of such reform is to provide higher-quality services at competitive prices by increasing the competition in the postal industry, and to increase the efficiency of postal operators. Liberalisation did not produce the desired results, as it was not complete and did not have the capacity to ensure basic postal services throughout the entire territory. The key question that is raised here which requires a response is: How to liberalize the market and provide universal postal services in the entire territory at affordable prices, and how to achieve a desirable quality thereof without discriminating the clients and operators. This paper defines the original model of securing universal services, based on the simultaneous use of several different models in financing universal services within the territory of one state. However, the model is designed for developing countries. The object of observation was one of the developing countries, with significant imbalances in the development of the region and the postal infrastructure.

Key words: Universal service obligation (USO), economic development, liberalisation, model.
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INTRODUCTION

At the 20th Universal Postal Union (UPU) congress in Washington, in 1989, a strategic programme entitled "Washington General Action Plan" (WGAP) was worked out. WGAP defined a series of specific measures and actions to be undertaken by postal administrations, governments and the UPU bodies in order to achieve better efficiency of the postal networks in all important aspects. Transition of postal administration from administrative to market-oriented business resulted in the introduction of new management methods and reformation of the UPU. At the 21st UPU congress held in Seoul, in 1994, the adopted resolution entitled "Seoul postal strategy" (SPS) defined the fundamental direction of future strategic planning. The congress also adopted the strategic plan meant to be implemented by all national postal administrations in order to have the position

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of public postal operators strengthened, both in the national and international markets. The document defined the general principles of activities concerning development of the postal environment. Consequently, the congress was denominated as the congress of transformation.

In 1997, the UPU organized the so-called 'strategic conference' in Geneva. It involved analysis of the impacts of liberalisation, globalization and new technologies, and, in respect of the regulatory functions, the following requirements were suggested:

1. To define the monopoly limits at national levels;
2. To determine the competition restrictions;
3. To adopt the regulations that will serve as the basis for the control of postal service monopoly, treatment of obligations in the field of universal service and securing of equal conditions for the business of all involved postal service protagonists.

The 22nd UPU congress, held in Beijing in 1999, was the

site where the "Beijing postal strategy" (BPS) was defined. BPS has so far been the most detailed plan brought and was based on the so-called MOST concept (mission, objective, strategy and tactics), comprising 4 mutually complementary development stages. According to the Resolution CA 10/1998 of the UPU governing board, the UPU's mission is derived from the constitution and is defined as the development of social, cultural and economic communications among everyone within the borders of one unified postal territory. This is due to the recognition of the efficient functioning of postal services, as described in the Regulatory Acts. To fulfil the mission, the UPU members performed the following activities:

1. Ensure the right to universal postal service for all the users thereof;
2. Guarantee the free transit and flow of postal shipments;
3. Ensure organization, development and modernization of postal service entities;
4. Promote and participate in the technical assistance among the member countries;
5. Ensure safe functioning of postal networks, through implementation of an appropriate standardization;
6. Satisfy the constantly evolving demands of users; and
7. Improve the quality of services.

The goals have to be accomplished through the activities performed within certain time limits and on the basis of the determined priorities. When defining a clearly and easily applicable strategy, it is necessary to take into account the financial aspects, choice of guidelines, preparation of plans for various sectors, determination of the priorities and quality defining requirements, as well as coordination of the cooperation plan. In the final realization stage of this concept, tactics must be defined; in other words, a set of possibilities and tools would be needed by all the partners in the project to reach the desired results. Governments, postal operators, restricted postal unions and permanent UPU bodies determined the tactics and ways of acting in accordance with the available resources, priorities defined and programme of activities.

The 23rd UPU congress introduced many specific requirements in respect of the goals, policies, programmes and binding activities toward implementing the UPU strategies. Bucharest World Postal Strategy (BWPS) was the title of the adopted united document devoted to the strategic plans of the 'union' for the period of 2005 to 2008. It was recommended that a shift from five to six BWPS goals should be applied. Two goals (universal postal service and cooperation among the stakeholders) remained unchanged, while quality of services and the economic sustainability of the international postal network were grouped together under one and the same goal.

The 24th UPU congress was held in Geneva. Postal strategy was based on the idea of strategic process

planning, advancing the economy and the promotion of economic and social developments.

THE POSTAL SECTOR IN DEVELOPING COUNTRIES

In developing economies, the connection between postal service and state policy persists, especially in connection with economic development (Eckert, 2009). As indicated by numerous studies, an effective postal sector builds the infrastructure to support economic growth and development. Consequently, the ambitions of postal sector in developing countries include:

1. Creation of the feeling of safety and trust in quality infrastructure which serves as the basis for both commercial and human communication, as well as for the logistic availability and financial affordability for a majority of the population (Idiegbeyan-Ose and Akpoghme, 2009).
2. Preparation of a retail sale network that offers numerous services like letter shipments, money transfer (especially the international transfers of money from the national workers engaged/employed abroad is a source of income for the local population), savings and payment operations (particularly in the rural regions) (Trubint and Bojović, 2006; Bojovic et al., 2009).
3. Development of the international traffic services necessary to support the trade development.
4. Creation of new jobs, since certain postal services are crucial for improved employment in other sectors.

Although most developing countries do strive to facilitate the economic and social development for the postal sector, in many cases there exist significant historical and current limitations connected with the political system environment, financial capacity, work environment and development capacity. Limitations for the economic and social development in the developing countries include:

1. Political development: Poorly defined and managed control environment, inadequate distribution of roles and responsibilities, arbitrary decisions, insufficient autonomy of business management and low competitiveness.
2. Financial environment: Low prices, low volume of services, poorly defined/applied protection against monopoly, obligation to provide universal services without receiving additional funding, significant financial needs and high dependence on subsidies.
3. Work environment: Inadequate work efficiency, long delivery/execution time, low faith of clients, low level of culture, limited profits and inadequate management.
4. Capacity and capability: Low or no investments, recapitalization, low network capacity, high development and maintenance costs within all networks and low motivation/stimulation for employees.

In developing countries, the state strives to have the

postal service which is the key drive for economic and social development; however, without integration and multi-level reforms, such ambitions will probably not be achieved in the upcoming decades.

METHODOLOGY

Globalization, migration and other social trends have also influenced globalization and other trends in the postal industry. The trends were particularly felt in European countries where, as early as 1992, a basis for future reforms was set up when a set of rules called 'green paper' was brought. It covered the development of a single market for postal services (COM/91/476) aimed to satisfy the general interests of international traffic and global economy. However, they influenced the individual interests of developing countries. Mere abolishment of monopoly, without a clear institutional and regulatory framework, led many developing countries in repulsion toward new trends and slowed down the already started postal reforms. Imbalances in the regional development of these countries were the cause of unsuccessful implementation of the universal national model that was meant to provide universal service. The expected results in respect of more efficient distribution and logistic chains were not achieved. Migration of the population in larger towns left behind the regions that were unattractive for investments (Republic Statistical Institute, 2006).

Large logistic chains and postal operators showed no interest to expand their activities to such areas. Majority of the universal service operators has remained to be state-owned, either partially or completely which gave rise to high barriers for competition (Kujačić and Šarac, 2004; Capgemini Consulting, 2007).

The question raised here is how to respond to the requests of regional development and trends that also favours development of postal activities and competition in the national postal market. Members of the "world postal union", who undertook the duty to provide universal service and liberalisation of the postal service market, applied different systems in providing and financing the universal service (Hallsworth et al., 1999). Universal service is most commonly financed from the income of the reserved services and public revenues that is budgeted. Sophisticated models implied financing from compensation funds through the "pay or play" mechanism (Chone et al., 2000; Mirabel et al., 2009) or by the "tender network approach". Finding a model that would be able to satisfy the need and encourage the development of universal service, while avoiding supplementary financing, as well as to meet the demands of competition and alleviate the duty of the public operator to implement the obligation has become a must for the contemporary postal reforms (Calzada, 2009). For the provision of universal postal services in the developing countries, the study proposes a new methodology. Implementation of the new methodology entails the following:

1. Previous division of the state territory into statistical regions, with a recommendation that such a division should be made on the basis of the administrative-territorial organisation of European countries - the so-called NUTS system (Nomenclature des unites Territoriales Statistiques). NUTS system was provided by the European Union through its statistical head office in Luxembourg (EUROSTAT).
2. Analysis of the fluctuations, goals and directions in the development of statistical regions.
3. Analysis of the fluctuations, goals and directions in the development of postal operators.
4. Optimization and choice of the financing model for each statistical region.
5. Coordination and control of the selected regional financing

models applied.

This approach to solving the problem of providing and financing the universal service obligation (USO) enables at least a partial opening of the national postal market to competition. The advantage of this approach is that operators will be punished if they "do not play" in the high-cost areas. The issue of equal and affordable prices is resolved through the application of models based on actual costs of the most efficient operator. The introduction of competition in the attractive markets in the field of universal service increases the efficiency of the public postal operators and better results are achieved on the basis of such criteria as the development of competition, innovation, social equity, efficiency and model transparency. This model regulates the scope, quality and sources of financing for the universal service in each statistical region.

During the research, the study has come to the conclusion that new funding models should also be applied in the under-developed regions that possess certain development potentials (agriculture, tourism, industry and energy). In particular, the study would like to describe the model of financing the universal service from the additional activities performed by public operators in public administration. By providing additional telecommunication, information and logistics services for the development of the region, the public postal operator will reduce the fixed costs per unit of service, increase the efficiency and create additional revenue to finance the universal service. The methodological approach to the selection of an optimal model of financing for an individual statistical region consists of four steps:

First step (Classification of the regions and defining the degree of regional development): For the purpose of this analysis, demographic indicators could be used (population movements and migrations, share of urban population, population density per 1 km², share of rural population and farmers in the total number of employed population in the country, and area in km²). One should also rely on the economic and financial indicators (economic growth and gross income), indicators of infrastructural development (road and railroad network, and telecommunication network), indicators of regional competitiveness (labour costs per employee, business efficacy and effectiveness), indicators of privatisation effects, etc.

Second step (Analysis of the regional development directions): This analysis is aimed at providing the answer to the question of what the state will do to stop negative trends in regions of their existence. For the purpose of this analysis, the policies of natural potential development, agricultural resource development, traffic and energy infrastructure development, investments, increase of employment, tourist potential development, international cooperation of local institutions, as well as donor projects of regional and local development are taken into consideration. This analysis is particularly important for the purpose of determining the right model of universal service funding. Innovative funding model, proposed with public operators' additional income activities in mind, is recommended for the underdeveloped areas that have clear views of future development.

Third step (Estimation of the resources and business results of primarily the public, but also private postal operators according to regions): Facts about universal service income and expenditure are of extreme importance for this estimation. Besides these facts, the analysis also involves the facts about the operators' capacity and resources such as the data about their postal network (post offices, processing centres, delivery areas and facilities of postal network), structure and number of employees, market share, technical and technological solutions applied and other facts of importance for the estimation and choice of the public postal operator.

Table 1. General information about the regions.

Region	Population number	Total area in km ²	Employment per administrative districts			Region participation in the overall employment	Overall income/1000 population			Operating costs per hour			Rate of net migration balance in per mile	
			Average	min	max	Average	min	max	Average	min	max	min	max	
1	1.576.124	2.980	38.90			29.70	10.95			2.4			More than 10	More than 10
2	1.342.210	21.139	22.97	18.00	27.80	15.20	1.85	0.76	2.88	1.4	1.11	1.58	More than -10	From -10 to 0
3	1.385.914	18.466	22.34	20.20	24.30	19.90	2.15	1.78	2.65	1.45	1.36	1.61	More than -10	From -10 to 0
4	1.161.778	13.139	24.60	19.50	27.60	14.00	3.14	2.59	4.35	1.74	1.4	2.13	From -10 to 0	More than 10
5	2.031.992	21.536	25.14	21.10	35.30	26.30	4.53	2.09	11.63	1.87	1.58	2.19	From -10 to 0	More than 10

Fourth step (The process of optimisation and selection of the funding model across regions): In this phase, an evaluation grade, from one region after another, is attributed to each funding model proposed, and then a selection of the optimal model is made. Each model represents one alternative. Evaluation of alternatives is made based on the following facts: (a) their capacity to meet the demands regarding competition development; (b) fulfilled conditions of social equality among the population; (c) harmony between the model and state aid regulations; (d) transparency and contradictions; (e) universal service financing proportionality; (f) model feasibility and reliability, as well as the possibility to achieve a higher allocation, production and dynamic effectiveness. Each of the alternatives will be evaluated according to the aforementioned criteria. The importance of certain criteria will differ among the regions, depending on the degree of regional development and its directions, as well as on the market potential and postal operator supply. This process of optimisation can be carried out by the method of multi-criteria analysis.

Case study

Classification of regions and determination of the development directions

This study has taken a sample of a developing country with

significant imbalances in the economic, social and demographic development of their areas. NUTS standards were used to form/define the statistical regions (five regions). One of the regions also represents an administrative district, whereas the other regions include more than two administrative districts. Results of this research in the development degree of individual regions are given in Table 1. Regions 1 and 5 can be classified into developed regions. Requirements and financial positions of the users significantly differ here from the other regions. Regions 2 and 3 belong to the group of underdeveloped regions with significant rates of negative migration balance. In these regions, a reliable model used in providing universal service needs to be applied, with guaranteed prices and improved quality. However, region 4 is classified into the regions of transitional types.

In the selected developing country, there is only one public postal operator, and the reserved area is the only form of financing the universal service. The public operator recorded negative results in USO, although the reserved area (RA) comprised letters of about 350 g in weight. The reasons for this situation are: a small number of items, universal services provider (USP) inefficiency and loss of income in Regions 1 and 5 due to strong competition and lack of other forms of financing. Table 2 displays the main results of the research of market and business operators. The existing state of USO is unsustainable without additional funding. Funding by the public and other operators is not feasible because the market is not equally developed.

It is necessary to act in an incentive manner on the development of markets and provide reliable and quality service in underdeveloped regions. Any assessment of the effectiveness of alternative funding mechanisms in delivering the universal service should be based on clearly defined criteria. Although the weight attributed to each criterion will depend on the specific objectives of each regulatory authority, the following criteria have been identified as being consistent with the best regulatory practice (Oxera, 2008).

1. Efficiency: Funding mechanisms should minimise distortions to economic efficiency, and, where possible, improve it. Three central aspects underpin the efficiency concept and they are: allocative efficiency (the USP is able to charge prices that reflect the cost of delivering the service), productive efficiency (the services are delivered at the lowest possible cost) and dynamic efficiency (having incentives to innovate).

2. Competitive neutrality/fair competition. For a mechanism to be competitively neutral, contributions that need to be raised to compensate for the net costs of providing universal service should avoid (or at least minimise) distortions to competition in the relevant market. That is, the mechanism should ensure that efficient entry in the relevant service market is not deterred, inefficient entry is not promoted, and that operators assume a non-discriminatory share of the USO burden.

3. Social equity: This refers to the concept of justice or

Table 2. General information about universal services provider (USP).

Region	Number of postal shipments per capita			No. of inhabitants per post office			Income of millions of euros	Funded by USO	Competitors of USP
	Average	min	max	Average	min	max			
1	65			8082			7.37	RA 350g	10
2	19	10	30	4898	2413	8030	-3.52	RA 350g	3
3	23	21	26	5114	4184	5782	-4.13	RA 350g	3
4	22	19	26	4722	3790	6571	-2.47	RA 350g	5
5	48	20	71	4000	2780	5351	-0.92	RA 350g	10
							-3.67	RA 350g	

fairness, and it relates to whether or not a funding mechanism allows a similar price to be charged to customers with similar abilities to pay, and whether or not contributions are fair and reasonable.

4. Compatibility with state aid rules: Any mechanism that involves some form of government funding (direct or indirect) would need to comply with EU state aid rules.

5. Transparency and opposability: The principles and functioning of a funding mechanism should be clear to all market participants, including their particular roles and responsibilities. Market participants and other stakeholders should be in a position to understand how the total level of funding is set, who contributes to the funding of the USO, and, where relevant, how the contribution of the market participants is determined.

6. Practicability: The complexity of funding schemes and the information required for their administration should be kept to a minimum. The more complex the scheme is to administer, monitor and implement, the less likely it is that its objectives will be achieved and the more costly it will become in practice.

7. Proportionality: A funding mechanism should, first and foremost, address the particular objectives it has been set to achieve (that is to fund the USO) and should minimize distortions to economic efficiency and competitive neutrality in the postal and other related markets. Any arrangement should ensure that, at any point in time, it generates sufficient revenues to cover the net costs of providing for the USO.

8. Certainty: A funding mechanism that is certain is one that guarantees that the arrangements are sustainable (that is the long-term availability of the universal service is guaranteed by enabling long-term investments in the system).

Reserved area funding mechanism (the traditional approach to funding the USO in the European postal sector) works by creating a monopoly in particular services or products. With the monopoly in place, the operator can set a geographically averaged price without the threat of competitive entry. Consequently, the reserved area, when properly designed, enables cross-subsidization between low- and high-cost consumers, with the losses made on high-cost consumers offset by the profits made on low-cost consumers.

In the postal sector, compensation funds have also been considered, but their applicability has been more limited. In effect, the European Commission considers that compensation funds can be used to compensate the USP for any 'unfair financial burden' it incurs in providing for the USO [CEC, 2006d; the commission staff working document accompanying the document of the report from the European Parliament commission and the council on the application of the postal directive (Directive 97/67/EC as amended by Directive 2002/39/EC)"; October 18th, Commission of the European community].

Pay-or-play is one of the sophisticated mechanisms available, as

it combines the question of how the USO should be funded with that of who the USP should be. The pay-or-play approach to funding the USO has the same starting point as a compensation fund. In order to fund the supply of the product to the high-cost areas at an affordable, and most often, geographically averaged price, those who only deliver in low-cost areas need to pay into some form of compensation fund. However, in contrast to a standard compensation fund, where there is only one defined (normally, exogenously determined) USP, under a pay-or-play mechanism, more than one company can decide to 'play' in the high-cost area. As a result of 'playing' the requirement on the company to 'pay' into the fund is then reduced/eliminated. Two main versions of this funding mechanism can be envisaged: a 'discrete' version, in which the choice of whether to pay or play is absolute - if entrants decide to play, they must play entirely (for example, deliver mail to every high-cost region in the country); and a more 'continuous' version of the model, in which the extent to which an entrant decides to play in the high-cost areas alters the extent to which it is required to pay into the fund.

The profitability cost of the USO, as proposed by Cremer et al. (2000) can be defined as the loss in profits incurred by the operator due to the USO. In other words, it measures the 'burden' that the USO imposes on the operator. Under a regulated monopoly where prices are set such that a profit level is specified (scenario m), the profitability cost of the USO is essentially zero. The USP can break even through internal cross-subsidies and there is no need for an external USO subsidy. When the market is liberalised, however, the profitability cost can be obtained by comparing the profits of the USP under a scenario where it faces competition due to the fact that the USO has been removed (scenario cc), against the profits under a scenario where it also faces competition, but the USO is still in place (scenario cu).

Scenario M is not directly relevant for the calculation of the profitability cost because, as stated by Cremer et al. (2000), measuring the USO cost, and hence, the financing needs of the USP under liberalisation, requires the incremental effects of introducing the USO to be estimated, thereby assuming that the starting point is a scenario where the market has already been liberalised, but there is no USO in place (scenario cc). Otherwise, if the starting point for the incremental effects calculation was the current scenario m, the USO cost estimate would also be picking up information on the effects of liberalisation, in addition to the cost of the USO per se. Formally, USO_{π} , which is the profitability cost of the USO under liberalisation, can be defined as:

$$USO_{\pi} = \pi^{cc} - \pi^{cu} \quad (1)$$

To understand why the profits after liberalisation (π^{cu}) are compared against the existing monopoly profits (π^m) would not be the correct approach, but it should be noted that:

Table 3. Selected models by regions.

Region	RA (g)	Funding of USO	Competitors	Goal
1	100	Pay-or-play	Courier, Express, Parcel (CEP) and USO>100g	Availability and development of competition
2	350	RA	CEP	Preservation of postal network
3	350	RA	CEP	Preservation of postal network
4	100	Joint network of JPO and public administration	Courier, Express, Parcel (CEP) and USO>100g	Availability and development of competition
5	100	Pay-or-play	Courier, Express, Parcel (CEP) and USO>100g	Availability and development of competition

$$\pi_m - \pi_{cu} = (\pi_m - \pi_{cc}) + (\pi_{cc} - \pi_{cu}) \quad (2)$$

Where the first term on the right-hand-side ($\pi^m - \pi^{cc}$) is the cost of liberalisation, while the second term ($\pi^{cc} - \pi^{cu}$) is the profitability cost of the USO, as defined by Cremer et al. (2000). Cremer et al. (2000) also highlight that the profitability cost approach implicitly takes into account any benefits associated with providing the USO, as these would be picked up through higher profits in scenario cu. This is consistent with the European Commission's stance, which states that the calculation shall take into account all other relevant elements, including any market benefits which accrue to an undertaking designated to provide universal service (CEC, 2006b). The implication of this analysis is that there is a case for compensating an incumbent for reduced revenues or increased costs which arise from any non-neutral application of the USO, while there is no such case for compensation due to the effects of efficient entry by competitors.

The entry pricing methodology - An additional approach to the estimation of the USO cost under liberalisation is entry pricing (EP). According to this methodology developed by Rodriguez et al. (1999), the USO cost is measured as: 'the sum of the losses of revenue from each of the competed routes after new entry at the lower prices on the incumbent's costs'. In other words, this approach measures the forgone contribution as a result of the entry.

When the incumbent's response to entry does not involve a change in its uniform price, that is, it simply accommodates entry and continues at the pre-liberalisation uniform rate, the EP approach would be equal to the profitability cost of the USO in addition to the effect of liberalisation. However, when the response of the incumbent entry involves a reduction in the uniform price, it charges for both the profitable (that is competed) and unprofitable routes. Subsequently, all things being equal, USO_{EP} is likely to be smaller than USO_{π} . This is because, given that it focuses only on the reduction in net profits on the profit-making routes, USO_{EP} would not take into account the reduction in net profits on the loss-making routes. The EP measure of the USO cost is also closely linked to the net avoided cost (NAC) approach. If, following the liberalisation, the incumbent loses all profit-making routes to the entrant, it is possible to show that USO_{EP} would be larger than USO_{NAC} by an amount equivalent to the fixed common costs of the incumbent.

Formally, the EP USO cost, USO_{EP} , can be measured as:

$$USO_{EP} = \sum_i^N (R_{mi} - R_{ci}) - [C_m(Q_m) - C_c(Q_c)] \quad (3)$$

Where: n is the number of routes on which entry occurs; R_{mi} and R_{ci} are the revenues obtained on route i before entry (m) and after entry (c), respectively; and C_m and C_c are the total costs of the USP before and after entry, respectively. When the incumbent's response to entry does not involve a change in its uniform price, the

EP approach would be equal to the profitability cost of the USO plus the effect of liberalisation. This can be observed by:

$$(USO_{EP}) = \pi^m - \pi^{cu} = USO_{\pi} + (\text{cost of liberalisation}) \quad (4)$$

Because USO_{EP} focuses only on routes where entry has occurred, Equation 4 may hold if the incumbent responds to entry by reducing the uniform price it charges for both profitable and unprofitable routes, which would affect the profits of loss-making routes as well. Nevertheless, if the EP methodology is interpreted more broadly - which, in Equation 3, would require estimating the change in total revenues after liberalisation (including routes on which entry has not occurred but the price has fallen due to the incumbent's competitive response) - then equation 4 is a valid expression showing the relationship between USO_{EP} and USO_{π} .

The EP measure of the USO cost is also closely linked to the NAC measure. If, under the monopoly scenario, the operator breaks evenly, the net profits from profit-making routes (revenues minus incremental costs, $R^P - C^P$) minus the net losses on loss-making routes (incremental costs minus revenues, $C^L - R^L = USO_{NAC}$) will be equal to the common fixed costs of serving all routes (F):

$$(R^P - C^P) - USO_{NAC} = F \quad (5)$$

Moreover, if after liberalisation, the entrant is assumed to take over all profit-making routes from the incumbent, the total net profits from these routes would be the EP cost of the USO, and equation 6 then holds:

$$USO_{EP} = USO_{NAC} + F \quad (6)$$

In other words, in the presence of fixed common costs and when the total net profits from profit-making routes are lost to the entrant, the NAC approach would underestimate the EP cost of the USO by an amount equal to the common fixed costs of the incumbent operator. However, when only a proportion of the profits from profit-making routes are lost to the entrant, the NAC approach might result in a higher estimate of the USO cost than the EP approach (Oxero, 2008).

RESULTS

The results of a new methodology (Kujačić and Šarac, 2009) and models to determine the cost and efficiency of the operator (Oxera, 2008) are given in Table 3. Detailed information necessary for the application of the methodology can not be presented here because it represents a trade secret of postal operators. Result of the proposed

the proposed methodology is manifested by a market liberalisation in the examined developing countries. In Regions 1, 4 and 5, the reserved area will be reduced to 100 g. These areas represent 79% of the total postal market. At the same time, in Regions 1 and 5, additional funding will be provided by the operators who are not involved in the “play”. In Region 4, the USPs will increase their efficiency through additional activities for the public administration, and the potential competitors will be motivated by the absence of USO funding obligations. Regions 2 and 3 will retain the existing monopoly. This situation in these regions will not lead to increased USO losses (about 8 million € per year), but the USPs performing USO in all regions will provide a significant operational advantage. Reduction of the network costs and the additional USO funding in Regions 1, 4 and 5, will reduce losses (about 3.5 million € per year) and assist in the efficient performance of USO and increased revenue, to help achieve profit in this area.

In performing the USO on the overall territory, USP records a loss of 3.6 million € per year. The results of implementation of this methodology suggest that, by reducing the cost and loss of USO in Regions 1, 4 and 5, the USP will be able to provide reliable and financially sustainable universal service.

Conclusion

The approaches to postal reforms so far have really focused on the degree of market liberalisation and autonomy for the operators. Such an attitude has considerably moved the universal postal service away from its economic feature of being a support for the regular economic trends. So far, correlation between the economic and postal trends was almost not studied. In rare situations, when the debates were led in the direction of necessity for development of the service as the backbone of society’s development, more attention was devoted to fair competition than to the needs of society and economy. Another extreme to this referred to the tight retention of the existing monopolies banning the competitors to enter into the delicate postal market. Such features of some of the existing models have opened doors for inefficient (Iturralde and Quiro, 2007) and non-inventive operators, thus resulting in higher prices and non-profitability, and sometimes in even limited and reduced postal network.

Sustainability of universal service in the undeveloped regions and rural areas is the problem that has been dealt with by the public operator, as well as the state and local self-government. The goals for such areas are to ensure more efficient use of the public operator’s network, reduce the prices of services and create the conditions that enable access just to the networks of efficient operators, which will give rise to an increase in the quality and choice of postal services, while

contributing also to a lowering of the prices of postal services. By strategic approach to the postal services, it is necessary to ensure a uniform development of the economy and society in general. This can be achieved:

1. By minimising the difference between the prices and expenses in providing service - allocation efficiency;
2. Through minimum costs and optimal use of the resources - production efficiency;
3. By applying innovations and development of new services - dynamic efficiency (Singh and Singh, 2009);
4. By well-balanced and fair competition;
5. By respecting the principles of social equality;
6. Through compliance of the operators’ business with national and international financial standards;
7. By applying transparency in approach and simplicity in model application;
8. By using simplified financial schemes and information to establish and manage the system;
9. By clearly defining the desired goals towards achievement;
10. Through appropriate balance in collecting the funds to finance the universal service; and
11. By applying a reliable model that guarantees the long-term sustainability of universal service.

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