Management of Investments in the local Transportation Infrastructure

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Abstract
A country’s infrastructure is extremely important within the present context. Ever since the ancient times, the construction of roads, bridges and railways was highly emphasized. It was noticed that during wars, the invaders used to build bridges in order to supply the army and transfer goods from the conflict areas to the providing countries. Romania has inherited since the communist times a not-enough developed network of roads and railways, but which were sufficient for these times.

Key words
Investment, cost, deficit, budget, infrastructure

1. Introduction
At the beginning of the 1990s our country had a poor-developed transportation infrastructure. For this reason, a lot of investors who would have wanted to open a business in Romania chose other regions. A well-developed transportation infrastructure would have helped to transport raw-materials and other products to Western European countries.

A deficient field was also the railway transportation. The maritime transportation fleet was composed of 288 ships, that is: 188 cargoes for general merchandise, 12 fillers, 70 mineralisers, 18 specialised ships. The two institutions that were based in order to sell everything, the State Property Fund and the National Agency for Privatization, had a portfolio made up of industrial and agricultural units. Besides these units, they also managed the fleet. This shows us that the leadership of the time had no interest but to alienate the ships and cash loads of money. From 1993 to 2001, the companies “Navrom” and “Romline” declared bankruptcy. They had 82 ships and never replaced them. Thus, Romania could enter the Guinness Book of Records as it succeeded to exit the world maritime map in less than ten years. The State Property Fund, lately the Agency of State Assets Valorisation, the economy inherited from the communist regime, has been totally destroyed.

For this reason, it was needed and it is still needed to invest in the transportation field. Unfortunately, the governments which followed in the next 23-24 years treated the transportation infrastructure problem in a superficial manner. European funds were lost due to not applying according to the deadline.

If we fail to obtain European funds for POS-T (Sector Operational Programme – Transportation), Romania will remain outside the investors’, tourists’ interest areas for investment. The priority axis II „Improvement of the regional and local transportation infrastructure” regards the revitalisation and modernisation of the inner roads, urban streets as well as the construction/rehabilitation of the ring roads.
as inner and/or circle roads. The aim for this axis is to improve and facilitate the access to these regions and population, goods and services mobility in order to stimulate the long-lasting economic development.

2. Investments in the transportation infrastructure

The investments in the transportation infrastructure will facilitate the population and goods mobility will reduce goods and travellers’ transportation costs, will improve access to regional markets, will grow efficiency of the economic activity, and will spare energy and time, thus creating the opportunity to extend commercial exchanges and thus productive investments. The development of the transportation networks will also facilitate interregional cooperation and will contribute to the growth of competition between companies/firms and workforce mobility and thus, will lead to Romania’s faster development as a whole and to each region’s development.

There have been attempts to extend the transportation infrastructure deficit in Bucharest by extending the subway. Investments were provided late, a few years ago, when 8 new metro stations were inaugurated. Also, there have been modernised the metro stations older than 30 years. In the following period of time, works will start to other zones which will take over travellers from areas which are not on the metro map. We are heading in the right direction but the results will come up in 10-20 years when we shall be able to travel fast and civilised in Bucharest.

Metrorex has suggested revising the technical solutions for the area Zarea-Laromet (Laminorului), extension of the Tronson II to the area around Străuleşti Lake as well as extending the central reception desk and installing the surface field in the Străuleşti Area – parking and station for the metro transportation. The transportation capacity of the section will be 50, 000 people per hour for each way and the Magistrala 4 will have a total length of 7.8 kilometres and eight stations. The authorities intend to develop the subway transportation so that the surface transportation will become complementary.

Till 2016 the latest travellers will be able to use the railway ring for passenger trains. This is a project that will involve Metrorex and the costs will reach about 500 million Euros. The train will be a kind of a surface metro with 27 stations and 15 car parks where travellers coming from outside Bucharest can leave their cars. The project involves the broadening the metro network by 2.6 kms, which will be built at the end of the line in Pipera-IMGB, where this line comes to the surface.

The works will end by 2015-2016, when in Bucharest there will be two rings for the railway segment: the railway ring of Bucharest and the inner metro ring. At the same time, ten trains for this direction will be purchased in order to circulate every 15 minutes.

At the same time, Metrorex will allot 758.54 million lei for the finalisation, in 2014, of Magistrala 4, for the section Bazilescu Park- Străuleşti where a roundhouse will be built. The autonomous administration will allot 84.60 million leis for 76 elevators and five inclined platforms for people with disabilities as well as 171.89 million lei for the modernization of the electric sub-stations. Besides these projects, Metrorex is preparing the construction of Magistrala 6 which will connect Henri Coandă International Airport of Bucharest, as well as Magistrala 7, between Rahova and Colentina neighbourhoods.

Metrorex, the operator of the Bucharest metro network, wants to extend Magistrala 4 by two stations to the Străuleşti Lake area, where there will built an assembly with a car park, a reception desk and a station totalling 1.22 billion lei. The investment will last for about four years and will be financed by a loan from the European Investment Bank, the state budget and Metrorex.

Metrorex will invest about 4.23 billion lei till 2014, with budget money in order to extend the network, purchase new trains and invest in facilities for people with disabilities, according to the investment programme of the Ministry of Transportation and Infrastructure.

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2. [www.capital.ro](http://www.capital.ro)
3. [www.stirileprotv.ro](http://www.stirileprotv.ro)
4. [www.ziare.com](http://www.ziare.com)
Thus, Metrorex will invest 1.64 billion lei for the new nine metro stations and 6.2 kilometres of
tunnels for the section Râul Doamnei (Drumul Taberei) - Haşdeu (University) from Magistrala 5 (Pantelimon
- University - Drumul Taberei), which also benefits from the support of the European Bank of investments
(EBI) of 390.46 million lei for the station and roundhouse Valea Ialomiței on the same section. Both will be
finalised by 2014.

Metrorex will pay 2,345,097 lei, without VAT for the consultancy services in order to purchase 37
new trains out of which 21 will be used on the Magistrala 5 Drumul Taberei-University, while 16 trains will
complete the number of trains on the existing routes.

The finance sources of the contracts will derive from refundable foreign funds. The bidders will be
required to provide the participation guarantee funds of 25,000 lei or the euro equivalent corresponding to
the average BNR exchange for the date of 13 September and a guarantee for performance bond of 6% of
the contract price minus VAT.

The section Drumul Taberei – University will be part of the Magistrala 5 which will relate the
neighbourhoods of Drumul Taberei and Pantelimon. The total costs of the section are estimated to 740
million Euros.

The section, which will relate the Drumul Taberei neighbourhood to the city centre will extend over
9.05 kilometers and 14 stations, respectively Ghencea, Prelungirea Ghencea, Raul Doamnei, Brâncuși,
Romancierilor, Drumul Taberei, Drumul Taberei 34, Favorit, Orizont, Academia Militară, Eroilor 2, Hașdeu,
Cișmigiu and Universitate 2, and at the Piața Universității station there will be made tie with Pantelimon
neighbourhood.

Metrorex has received five offers from constructors interested in the 953.5 million lei contract (about
220 million Euros) in order to extent the metro network on the section Parc Bazilescu - Străulești, from two
companies and three consortiums from Romania and abroad. The associations are Somet - Astaldi (Italy) -
TIAB - UTI (164.41 million Euros and a duration of 30 months), Aktor (Grecia) - Euroconstruct - Arcada
(194.18 million Euros, duration of 36 months), respectively Max Boegl România - Max Bogl (Germany) -
Delta ACM (204.53 million euros, for 20 months). The other two offers are from the company Hochtief
(Germany) (218.3 million Euros, for 42 months duration) and FCC Construction (Spain) (210.52 million Euros
and 30 duration)⁵.

Metrorex has signed with Padeco (Japan)/Oriental Consultants (Japan)/Metroul SA Romania/Seneca
Group International/Systra (France) a contract of 66.6 million Euros for consultancy in relation with the
metro network with Otopeni Airport, which will become functional in 2017-2018⁶.

While in Bucharest there are 4 base lines, in Paris there are 16 base lines. Smaller metro stations are
dug underground without surface demolition. If the method were used in Romania, we would not have to
avoid the working areas and thus we would have no traffic chaos.

In London there are 11 base lines totalling 400 kilometres of rail and 270 stations. The London metro
is the fastest and most convenient means of transportation and can be considered as a tourist attraction.

A top ten of the most impressive metro stations made by apropro.ro shows that:
1. The metro station Tunnelbana of Stockholm (Sweden) – looks like a cave with painted walls.
2. The metro station U- Bahn of Munchen (Germany) is a very colourful metro station with
minimalistic design.
3. The metro station Shanghai Bund – is one of the most surrealist and even psychedelic public
forms of transportation. The tunnel connects East Nanjin from Bund and Pudong, being built under the
river Huangpu. The tunnel is a reeling journey of 647 meters with flashes that go through the walls.
4. The metro station Komsomolskaya of Moscow (Russia) – the Komsomolskaya station is the most
famous station of the city. It is almost an icon of Moscow with a future-inspired design.
5. The metro station Bockenheimer Warte of Frankfurt – it appeals due to the impression of an
inverted wagon swallowed by the ground.

⁵ Mediafax.ro
⁶ www.gandul.info
6. The metro station of Bilbao (Spain) – is well-lighted and spacious station with a special design which combines glass and metal.

7. The metro station City Hall of New York – has not been used since 1945 but has an appealing design.

8. The metro station O'Hare of Chicago – was built in 1984 with multicoloured glass walls, designed to "absorb" the noise while the platform is lightened.

9. The metro station of Dubai – the architecture of the Dubai metro is a mix of traditional and modern design which combines the four elements of nature: water, air, fire and earth by transposing them in different elements.

10. The metro station Pyongyang of North Korea – the architecture is special due to wall paintings.

3. Conclusions

The investments in transportation infrastructure play an important role in the creation of new jobs, in improvement of the living standards, services for the population and progress in different labour sectors.

In order to obtain foreign investments, the investors have to be offered financial and fiscal stimuli. Investments can also be regarded as a connection between generations due to the inheritance of fixed capital that it receives from earlier generations. In any field, investments bring profit to the economic system.

The surface public transportation system must be environment–friendly. The investments in the environment infrastructure will contribute to improvement of the water management systems as well as waste systems according to European standards. A greater energetic efficiency along the chain – production, transportation, distribution and final use – will improve economic competition air quality and will lay the grounds of stable and long-lasting development. The efforts will focus on more effective natural environment management and long-lasting use of natural resources. With good management system, which attracts non-refundable funds and funds from taxes and local fees, the public transportation system will meet the taxpayers’ needs.

Managers must understand which are the most efficient resources and means of investment. There should be taken certain measurements by human resources management and public institutions such as: professional training in view of qualified personnel, employees’ yearly competence verification, insurance of good working environment, creation of salary system to boost performance.

The importance of investments in long life learning is fundamentally based on the economic transformations of the contemporary periods as well as the present opportunities whose consequences are regeneration and intensification of efforts to adapt to the human factor.

The acquisition of personal qualifications based on the know-how acquired in different moments in time and situations makes us become aware of the need for education and professional training either in a formal system, at the work place, or informal represents the key to personal evolution and development for everyone.

The organizations which have trained and qualified workers are renowned as effective institutions, and are usually renowned as highly successful organizations. The trained human factor feels appreciated, thus proving self-esteem, and gaining the employer’s respect. The human factor, perceived in this manner, will put a lot more effort for the good development of high quality economic activity.

The improvement of labour market position is based on the accumulation of knowledge and abilities translated in higher productivity, faster modifications in all fields and thus determining a more dynamic array of needs. The investment in training brings benefits both to the developing human factor and to the entire society in development.

The human factor represents the main strategic resource of an institution in the modernization process and restructuration in order to redefine the employee’s role in the society through communication.

7 www.apropo.ro
8 Cadrul strategic național de referință 2007 – 2013/ amposcce.minind.ro/fonduri_structurale/CSNR
and relations. Employers should promote the principles of professional employees who are appreciated according to professional abilities, performance, qualities and labour efficiency and the way they are perceived by the society. The relation activity in the institution will obtain the desired objective if it is based on the association of the human factor and the traditional values such as: efficiency, effectiveness and quality.

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