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The role of logos in place marketing – with examples of Hungarian cities

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Abstract.

Logos may be the most tangible elements in the marketing and communications of a city. Logos are good if they capture the character and story of the city, distinguish it from other places, and are capable of inspiring tourists, investors, and, not least, locals.

However, if logos are ordinary and meaningless, they may do more harm than good. A logo that is overcrowded with too many elements at the same time is likely to become an incomprehensible montage, thus does not contribute to the improvement of the townscape. The same is true for logos with an oversimplified little sun shining, carrying no clear message.

Therefore this study first examines what elements make a good logo. What should we take into account when designing and approving a logo? How can it become a part of the entire visual identity? What are the typical examples in connection with it? How do Hungarian cities apply them? All in all, the question is: what makes a good logo in the case of a city?

Keywords: place marketing, city marketing, place branding, city branding, logo, visual identity

1. Introduction: The role of logos

Good brands do not only use good slogans, but they also have good logos and – in a broader sense – good visual identity. Wally Olins, the author of the book *On B®and* (2004) goes as far as to state that ”logos are the heart of branding programs”.

Others quote Confucius: ”A picture is worth a thousand words” – referring to the role of logos that is greater than that of brand names in their opinion.

But they are wrong. On the one hand, the text of the original saying by Confucius says ”A picture is worth a thousand gold pieces”, which means that visual appearance plays an extremely significant role, but words (including brand names, that is, city names and associated slogans) are even more important.

On the other hand, if we take a look at the origin of the term ’logo’, we realize that it comes from the Greek word ’logos’, whose original meaning is ’word’. This suggests that the role of logos is no different than displaying the name in a visual way (Healey 2009, p. 90.)

Of course we may also find counterexamples such as Apple, Shell, the Red Cross, Nike or Starbucks, where you do not even have to write down the brand name, because you can identify the brand based on the logo.

However though, if we look at their original logos, we can see their brand names included in capitals, and the brands only omitted them several years or decades later. In addition, Apple, Shell, or the Red Cross could also exclude their brand names because their logos are brand names as well – in English-speaking countries people say apple, shell, and red cross if they see the sign of an apple, a shell, or a red cross. The situation of Nike as a brand is more complicated: the company placed the ’pipe’ (or ’swoosh’) symbol on its products for several decades, and consumers using the brand met the symbol every single day – they were actually wearing it. Another example is Starbucks: the company has only omitted the caption on its cups, but their cafés still carry the brand name written in huge letters.

Illustration 1: The original meaning of the term logo is ”word” – Apple, Shell, or the Red Cross could exclude their brand names because their logos are brand names as well – in English-speaking countries people say apple, shell, and red cross if they see the sign of an apple, a shell, or a red cross



Once again: the role of a logo is to support the appearance of the brand name as much as possible. This is usually achieved with a combination of a word (the brand name) and a visual symbol, but there are other options as well.

What is a good logo like? According to graphic designer Paul Rand (quoted by Healey 2009, p. 90.): ”An ideal logo is simple, elegant, versatile, practical and unforgettable”. However, this definition is not specific

enough. If we should provide a checklist with a series of questions about good logos, it would look like (Papp-Váry 2013):

– Does the logo communicate the brand, its positioning and values in an appropriate way? (For example, if the brand is for women, does it use a slim, feminine font? If it is for men, does it use a more robust, thicker font? Does it use colours that support the message? For example, in a somewhat simplified manner, white colour can be associated with cleanness, black with luxury, blue colour may suggest leadership, violet may be connected with royalty, and green suggests an environmentally friendly character.)

– Is the logo simple? Are you sure it does not include too many elements? (It is no coincidence that if we consider the logo history of great brands, they have become simpler.)

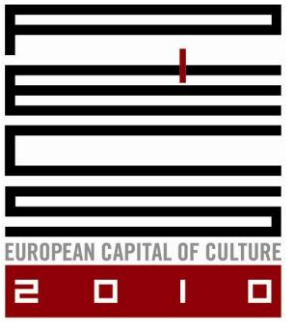
– Does it work on black and white surfaces as well? (Although the number of black and white press products is decreasing, it is still worth considering a black and white version of the logo as our colleagues may need to print corporate materials in black and white.)

– Does it work in small sizes? (Can it be noticed if it is scaled down to a really small size? Can the brand name be noticed in a reduced size?)

– Can the brand be clearly noticed? Can the brand name be easily read? (We should not think that we are Nike, Apple, or Shell.)

Illustration 2: The original meaning of the term logo is ”word” – which means that the word (the brand name) must be easy to read.

The city of Pécs (as the European Capital of Culture in 2010) broke this rule, which was an unfortunate choice. Usually logos with a wide shape are also more practical than vertically elongated ones.



– Can it be used horizontally and vertically as well? (It is usually more useful to create a logo that is horizontally wide in a 2:1 ratio approximately. The reason for this is that many surfaces possess this ratio, e.g. billboards, business cards, e-mail signatures, or the façades of buildings, therefore a logo like this can be placed on them more easily.)

– Can the logo be extended to offline and online identity materials? (After all, a logo is just the basis of visual identity. We need to check if it works on envelopes, writing papers, invitations, advertising materials, e-mail signatures, the website, etc.)

– Are we sure it can not be confused with the logos of other (competitor) brands? (The essence of branding is differentiation. It is no wonder that Pepsi is using more blue colour than before, distinguishing itself from the redness of Coca-Cola.)

– Does it grab attention? (The violet-orange combination used by Fedex delivery services can be noticed from a distance. Bookline online book shops did not only choose neon green because it was different from the competition, but it was also different from the communications of all other online companies – let us remember that we do not only compete with our direct commercial rivals, but also with everyone else as we try to attract attention.)

– Can it be applied on merchandising items and ’gadgets’? (Some time ago a graphic designer told me that one of the basic questions concerning logos is: ”Would we take on a T-shirt like that?” And, similarly: would we use a key ring like that? Or would we put a sticker like that on our car?)

2. The logos of cities

”In the case of cities, logos and slogans may function similarly to trademarks of traditional products: they are symbols that represent the city or the region in a simple, easy to understand way”, says Lajos Boros in his

study *City Branding – Márkateremtés a helymarketingben ("The creation of brands in place marketing")* (2010, p. 49.)

The difficulty comes from the fact that most cities already have a "logo", that is, their coat of arms. However, it usually does not comply with the requirements mentioned above, and, especially, it is not suitable to attract tourists and investors.

The solution is usually the use of the traditional coat of arms in certain official documents, and the use of a 'real' logo in all other materials reaching the public.

Illustration 3: The duality of the city logo and coat of arms (and, in certain cases, their multitude) is an issue in all cities:
The coat of arms and former logo for Győr, Hungary (the logo was replaced in 2017)



Many cities use a coat of arms and a logo at the same time, but the situation is further complicated by the fact that several cities also use a variety of logos serving various purposes:

– the logo used by the municipality / mayor's office
– the logo used to attract tourists
– the logo used to stimulate investment
– the logo or logos used to promote the sales of local products
– the logos of various local NGOs
– the coat of arms and logo(s) of the local football team, or other important sports clubs
– the logos of local city companies (e.g. public transport)
– logos created for specific events and programmes
– and so on.

If these elements are not corelated in some way, the result may be a gigantic cavalcade of logos resulting in the disintegration of city communication.

This is true even in the case of metropolises, for example, London.

At this point I must emphasize that, however strange it may seem, it is always better to have one good logo that can be used on the long run than a series of brilliant logos replaced each year. The reason is simple: in the latter case there is not enough time to 'convey' them to the target audience.

In this sense, the case of Spain is a positive example – not only did they choose a central logo, but they have also stuck to it for decades. The unique figure was designed back in 1983 by famous artist Joan Miró. At the time, the logo was regarded as revolutionary, because it did not use the Spanish flag or coat of arms, but still included the national colours of Spain, and even symbolized the sun. What is even more important is that the logo is still used in the communications materials of the country. (See for example Papp-Váry 2009) However, the long-term use of the logo may also be attributed to the fact that it was designed by a famous person, a real celebrity, and not some unknown graphic designer – in the latter case, they would have presumably replaced the logo with a new one.

All in all, the Spanish logo has become an example to follow: several countries and cities tell their graphic designers and city identity experts to create something like the one Miro designed for Spain.

Illustration 4: A cavalcade of logos does not facilitate uniform communication even if it is a well-known metropolis, e.g. London.



Illustration 5: The Spain logo by Miró, used consistently since 1983 – many countries and cities try to imitate this visual approach



Another emblematic example is the ”I heart NY” logo designed in 1977, which is also interesting because it was originally created for the State of New York, and not New York City. It is also associated with a legend: it was designed by Milton Glaser of Push Pin Studios. The name of the famous designer played a significant role in the first years of the visual symbol, therefore it was not replaced.

It should also be noted that there is no logo or design that would be immediately loved by the public or the profession. For example, the Spain logo mentioned above was criticized for looking like fried eggs. Therefore it is extremely important that the logo survives its first years, months, weeks, or days, in spite of the criticism likely to follow its introduction.

Illustration 6:The famous ”I heart NY” logo was designed by Milton Glaser of Push Pin Studios. The name of the famous designer played a significant role in the first years of the visual symbol, therefore it was not replaced.



Let us have a further look at cities and villages, this time with examples from Hungary.

In a research by Gábor Kozma in 2005, the ratio of Hungarian city/village logos featuring certain characteristic elements was also examined.

Table 1: The appearance of typical elements in city logos

Element in logo	Percentage of cities using it
Water	55.5
Building	48.1
Sun	40.7
Relief	18.5
Vegetation	14.8
Heart	3.7

Source: Kozma, Gábor: Terület- és településmarketing – Geográfus és földrajz tanár szakos hallgatók számára (”Regional and city marketing – for students of geography and geography education”), Debrecen, p. 134.

According to its findings (see Table 1) the most popular symbol was water, included in more than half of the logos (55.5 per cent). This can be explained by the fact that the majority of examined settlements is located near a river or by Lake Balaton.

The second most common element appearing in 48.1 percent of logos was a typical building associated with the specific place.

The third most common symbol was the Sun with a result of 40.7 per cent. The use of this image can be explained by the Hungarian climate characterized by sunshine and good weather, and the positive implications of sunny weather.

The three most prominent elements were followed by symbols such as relief (18.5%), vegetation (14.8%) and heart (3.7%).

Illustration 7: It may also be useful to display a characteristic building from the city in the logo as seen in the examples below: Széchenyi Castle in the case of Fertőd, the Votive Church or the Dome in the case of Szeged, and the Reformed Great Church and the Nine Hole Bridge in the case of Debrecen and Hortobágy



Illustration 8: The Great Church of Debrecen also appears in another logo in a stylized form – it is also interesting that the logo is also based on the domain name as the .hu extension suggests



Illustration 9: The same solution is used by the city of Tokaj, but their logo but refers to a wine region, not a building



In the case of Hungarian cities it is exciting to see that there are examples of logos featuring the city name only, and others also including the slogan.

Illustration 10:A few examples from Hungary with logos including the name without a slogan



It is important to point out that the inclusion of the slogan in the logo is not always compulsory. On the one hand, if a city can not find a unique slogan characterizing the place, it is not worth pushing the issue. On the other hand, it is possible that a specific logo should be used alongside with a slogan (or slogans) in certain cases, while it should be used with no slogan for other purposes.

Illustration 11: A few examples from Hungary with logos (or at least some applications of them) including the slogan:

Hatvan: ”The heritage of our future (Jövőnk öröksége)”, Hajdúszoboszló: ”Hajdúszoboszló, the recreation resort (A felüdülőhely)”, Gyál: ”The innovative garden city (Az innovatív kertváros)”, Hévíz: ”The source of life (Az élet forrása)”, Eger: ”Your story (A Te történeted)”, Nyírbátor: ”In the land of dragons (A sárkányok földjén)”, Makó: ”Not only onions (Nem csak hagyma!)”, Balatonfűzfő: ”Sea of opportunities (Tengernyi lehetőség)”, Szentes: ”Freedom, Szentes, I love it (Szabadság Szentes Szeretem)”, Tiszakécske: ”The city of sunshine and waters (A napfény és a vizek városa)”, Szekszárd: ”… where you recreate (…ahol feltöltődsz!)”



3. Uniform and diverse

This title may seem contradictory, but it makes an important point. The mantra of using logos used to be the consistent use of a single logo without any modifications, but the situation is different today.

For example, Coca-Cola has been using the very same logo on the packaging of its products and in its advertisements almost since the founding of the company in 1886. Counterexamples include MTV (Music Television), which has used variations of its logo, for example, according to various music genres. We could also mention Google, which uses different logos every day, sometimes even varying by country, e.g. with special logos designed for national holidays.

Illustration 12: The city of Melbourne is a good example of using a central logo in a way that it can be flexibly shaped with colours and forms inside another form



We may also find examples for the diversification of city logos. Similarly to MTV, the city of Melbourne (Australia) choose a letter M. The city uses the logo flexibly: it has a uniform basic shape, but there is a variety of shapes and a wide range of colours within the basic shape.

Copenhagen follows a similar concept: there is a basic format with a wordplay involving the city name – cOPENhagen, suggesting openness. This is complemented by slogans such as ’open for connections’, ’open for change’, ’open for tolerance’, and ’open for development’.

Illustration 13: In the case of Copenhagen the term ’open’ appears in various forms, always adapted to the intellectual content of the specific slogan, for example: ’open for connections’, ’open for change’, ’open for tolerance’, and ’open for development’.



Some cities go even further in flexibility. According to Neumeier (2006, p. 91.) logos used to be important tools in the era of print press, but in the online age they are replaced by avatars that can be 3D, and may even move or jump. He claims that variations in the visual identity – and, in general, branding – may function similarly to people, who can be serious or funny at different times, but others always recognize them.

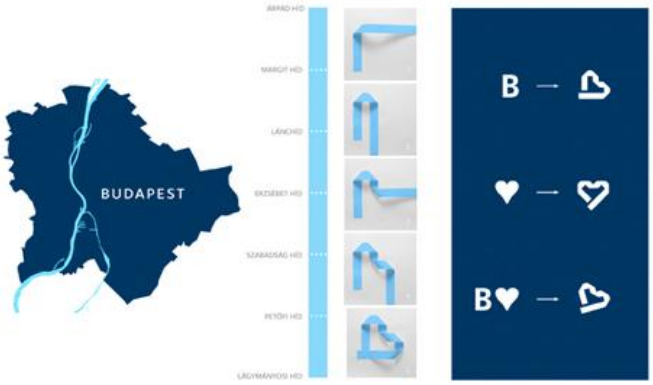
However, he is only partly right: MTV or Google are large companies who can afford to employ graphic designers assigned to design logos for them. In addition, both companies appear on the screen, where logo modifications are easily implemented. It is no wonder that even MTV and Google have their own basic logo that they use for more official communication, for example, press releases.

This is also exemplified by a former logo of Budapest with a blue ribbon. This element could (and, actually, did) move in films and digital materials, but a basic version of the logo was still necessary.

Illustration 14: The former logo of Budapest with a blue ribbon is a good example of a basic version that can be animated in films and digital materials.



Illustration 16: You would not think how much input is behind a logo or its creation. In the blue ribbon logo of Budapest there is a reference to Danube and the bridges (each fold in the ribbon is a bridge). The logo also embodies a rotated letter B, and a rotated heart. The blue ribbon carries a positive message in itself as it usually symbolizes the first place in watersports/sailing races.



4. From logo to identity

If there is a good logo and an associated visual identity, it is practical to explain them in a so-called identity manual specifying the most important elements and the rules of using them, such as (see logoterv.hu, 2013):

- Basic expectations: logo, font, colours, the use of colours, examples for the use of colours, an explanation of the terms used in the handbook, the use of the logo of the predecessor, the figure impersonating the city
- Basic regulations: tha basic versions of the logo, their use, examples, mascot
- Legal consequences: general rules, trademark
- Office stationary: writing papers, business cards, notes, memos, reports, accompanying cards, mailing card, invitation card, envelope, labels, press releases, press dossier, folder, dossier holder
- Business forms: stamps, forms, computer forms, technical and editorial forms
- Publications: front page, desktop publishing, advertising brochures, catalogues, publications for internal use, phone directories for internal use, information boards
- Advertising and promotional activities: international, domestic, recruitment publications, outdoor advertising, illuminated advertisements, billboards, advertising columns, other print advertisements, frame graphics, advertising films, advertising spots, sponsorship, musical identification, signal, etc.
- Exhibitions: stand visuals, editing the information surface, graphical plans of the panel, typography, goods carriers
- PR activity: creating the front page of reports, PR films, reference films, B-roll films, image films, newsletters, presentations, presentation and sales materials, press photo database, creating the crisis communications handbook, etc.
- Packaging: general rules, principles, identifiers
- The identification of the city: general expectations, labels, inscriptions, alternative options
- External and internal guidance systems: building identifiers, illuminated direction boards, in-house signs, boards, name boards, internal portal, flags, etc.
- Branding of vehicles associated with the city or the municipality: cars, trucks and other vehicles
- Uniforms: badges, helmets, coats, management clothing, formal wear, appearance at various events
- Gifts and promotional items: occasions and criteria of providing gifts, thresholds, promotional items, wall calendars, greeting cards
- Network communications: Communication within the city, publications, professional meetings, research cooperation, city newspaper, city news programmes, database access, communication between the city and the persons specified, contact requirements, confidentiality codes, websites
- Other – electronic - communications, CD, USB, video, internal communication materials
- The identity of web-based communication tools: website, intranet, banner designs, Word and PowerPoint (possibly: Prezi) templates, etc.

What is even more important is that these items should not only be included in the identity manual, but also enforced and adhered to. This is also valid for electronic materials and everyday documents prepared by the municipality. It is shocking to see when some municipalities send Word or Powerpoint files with random fonts, awful layout, and a disintegrated logo. It is true that visual consistency in itself does not create a brand – but it is also true that it is a useful tool in brand building.

However good the logo of a city is, we cannot expect that it will please everyone – it would be a hopeless venture. We also have to prepare for the waves caused by the introduction of a new city logo. In certain cases some people think that the logo is 'lame'. In other situations it becomes a matter of political debate and the whole issue becomes politicized. We should also note that such situations may also result in more local publicity for the new logo.

Another important question to consider before the introduction of a new logo: are we sure that the new one is so good? Wouldn't it be better to go on using the old one? People seeing the logo every day, that is, professionals involved in city identity might be bored with the old logo, but it does not necessarily mean that locals or tourists are bored with it as well.

Illustration 16: The new logo of Miskolc was introduced in 2012, and sparked a heated debate – the logo includes local sights such as the Diósgyőri Castle, Lillafüred and the Cave Bath of Miskolctapolca.

Illustration 19: The figure below suggests that Miskolc has used a wide range of logos so far – luckily they used one for 10 years, and have been using the current one for 5 years.



5. Summary and suggestions for the selection of city logos

Robert Govers, a prominent expert of the topic, published an article in *Place Branding and Public Diplomacy* (2013) titled *Why place branding is not about logos and slogans*. As he explains with great exaggeration, ”As places have (more often than not meaningful) names and landmarks, the amount of time and investment generally spent on designing logos and slogans as opposed to actual reputation management for places, seems to be a waste.”

Jeremy Hildreth, the other prominent expert of the field uses more gentle words in his article *The joys and sorrows of logos and slogans in place branding* published in the same journal (2013, p. 222.): ”In an ideal situation, no more than 10 per cent of a place’s identity budget would go toward developing logos and slogans and other signifiers, whereas 90 per cent or more of the budget would be used to find identity-enhancing actions and identity-centric substance, both of which speak louder than words, or logos.”

The opinion of the author of this study is closer to Hildreth’s ideas than Govers’ words. Indeed, it is important to emphasize that the significance of logos (and slogans) in city branding must not be overrated. However, they should not be underrated, either. They may have a serious role in the communication and promotion of the city and the city brand, resulting in a more positive image, more customers of local products and services, and more loyalty to the place.

Therefore it is very important to consider the aspects presented in the article.

When choosing/creating a logo, we must keep in mind the following aspects:

- The original meaning of the term logo is ’word’. That is, the role of a logo is no different than displaying the name visually.
- It should function in a way that communicates the brand, its positioning and values well.
- It is important to make it simple, enabling it to function properly in coloured and black-and-white versions, on small and big surfaces.
- In the case of most (but not all) logos the ideal choice is a width that is twice as big as the height of the logo.
- A logo is only the basis of visual identity. A good logo can be communicated in offline and online materials, building the brand consistently.
- It should be different than that of competitors (other cities), and, if possible, should be distinguished from anything else, because it has to attract attention.
- A simple, but effective logo test: ”Would we take on a T-shirt like that?”

– This is also important because in the case of place marketing the logo must be placed on T-shirts, pens, keyrings, bottle openers, baseball caps, and a wide range of other objects that can be sold to tourists and may be included in packages presented to possible investors. In addition, such materials may also strengthen the identity of locals. Let us think of the great success of 'I love NY' T-shirts with the heart symbol – but we should not copy it entirely. We must be different!

Illustration 17: Testing a (city) logo: "Would we take on a T-shirt like that?" - It is no accident that the city of Vásárosnamény included this plan in its city identity manual, winning the National City Marketing Prize (Országos Városmarketing Díj) contest organized by the Hungarian Marketing Association



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Effects from CAP on Income, Employment and Balanced Territorial Development in EU Member States

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Abstract.
The CAP is a policy that is better adapted to the old member states, which can be explained by the historical approach of development. This policy is not enough flexible to meet the structural, economic and productive differences in the Community of 28 independent countries. In recent years, European agriculture has been losing growth rates compared to fast-growing countries. The added value generated over the last 10 years in the EU -28 is about 4 euros against every 1 euro distributed as direct payments. The share of subsidies in factor income from agriculture is about 30% in the EU, which reveals dependence and puts at risk the viability and sustainability of the sector without subsequent reforms. The cost of each created and maintained workplace is quite high and it is not certain whether these jobs will continue to exist if a change occurs.

Keywords: CAP, effects, income, employment, balanced territorial development, EU.

1. Introduction

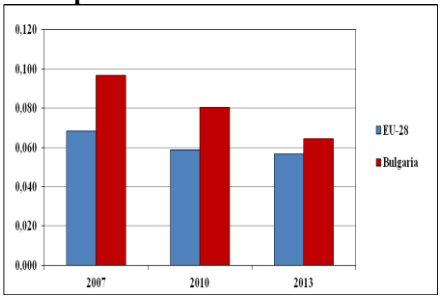
CAP subsidies in EU Member States are expected to contribute and to maintain employment and incomes in the agricultural sector. The main question that is increasingly being asked in the EU is about the sustainability of this policy. It turns out that the price of each created and maintained workplace is quite high and it is not certain whether these jobs will continue to exist in the event of a change. The results show that, despite the agricultural and rural employment support policy for 2007-2013, labor input in European agriculture declines about 19% to about 0.06 g / ha. This means that labor productivity is rising and the number of people employed in agriculture is constantly decreasing as a result of the modernization and mechanization of the sector. These are natural processes with a view to modernize and seeking of producers to increase productivity and efficiency, as well as responding to the ever decreasing tendency of the free labor force to engage in farming.

2. Effects of CAP on Income and Employment in EU Member States

The CAP employment policy provides results, unemployment in the predominantly rural EU regions is at roughly the same level as urban unemployment. In 2015, unemployment rates in predominantly rural areas in the EU countries are around 9.6%, while in predominantly urban areas - 8.4%, and in the so-called intermediate - 9.5%. Even in previous years, unemployment in rural areas is lower than in areas identified as intermediate, which shows the positive effects of a balanced development policy.

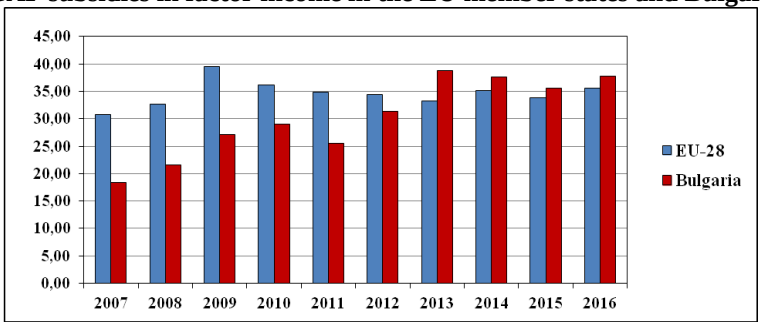
Unlike the EU Member States, in Bulgaria, the AWU/ha has a higher value of 0.097 AWU/ha in 2007, decreasing to 0.064 AWU/ha in 2013, which means that labor productivity in agriculture is rising and the rate of this improvement is higher than the average level in EU. At the same time, convergence in unemployment between rural and urban areas in Bulgaria shows lower performance than in the EU, and it is significantly higher in rural areas than in urban areas. In predominantly rural areas, the unemployment index has risen from 7.4% to 12.5% over the past 10 years, while in urban areas it has dropped from 9.4% to 4.3%. The risk of poverty in large and smaller cities declined from 58% in 2007 to 39% in 2016, while in rural areas it decreased from 64% to 54% and thus the differences between the two types of regions are growing. The reasons for this are very and different, but the main point is that the approach to rural areas is still quite formal and is more financial instruments than a comprehensive policy.

Figure 1. Distribution of the labor force per hectare of arable land in EU Member States, AWU/ha.



Source: Eurostat, Economic Accounts for Agriculture;Updated: January 2016.

Figure 2. Share of CAP subsidies in factor income in the EU member states and Bulgaria,%.



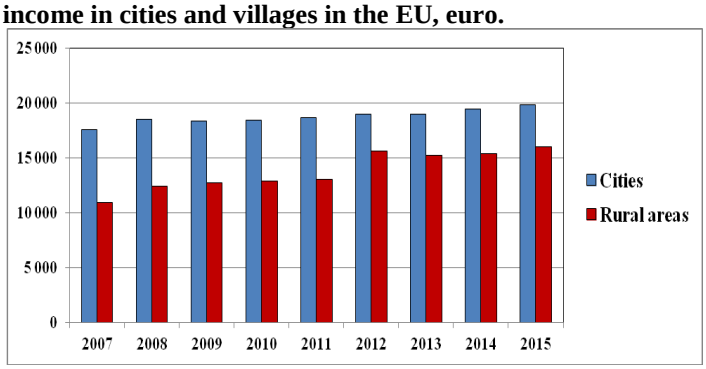
Source: Eurostat, Economic Accounts for Agriculture;Updated: January 2016.

Regarding the share of subsidies in factor income from agriculture in the EU, it is seen that it is moving at level around 35%, and has even increased in recent years. Direct payments contribute for increasing farmers' incomes in the EU. For the EU, they have the most important role in the structure of livestock farms (cattle, sheep and goats), crops, mixed farms and dairy farms. They help to reduce the difference between the average farm income per unit of labor in small and large farms. With regard to ensure a fair standard of living for the agricultural community, direct payments help to reduce the difference between the average income of farmers and those employed in other economic sectors, which explains their essential role in the EU.

3. Balanced territorial development

Relevance and potential effectiveness for achieving balanced territorial development in the EU are a major challenge for the Union. One of the most acute problems in rural areas in the EU is related to a lag in economic development between urban and rural areas, population aging, deterioration of the demographic structure and migration from village to town. For EU-28, rural areas make around 52% of the territory and only 22% of the population. They make 16% of GDP and 21% of the workforce. Typically, urban areas make 53% of GDP, with 43% of the population, 10% of the territory and 45% of workers, which reveals both higher urban productivity per occupation and higher employment and profitability. In general, the problems between the different countries of the EU's rural areas are roughly the same as the roots of these problems are the essence of these areas, which, despite the growing diversification and reduction of the share of agriculture, can not attract high return investments and hence create jobs for qualified professionals, which sucks human resources. Many of the trade and service activities are also not enough effective when the population and purchasing power are low, which is also an obstacle for modern European rural development.

Figure 3. Average net income in cities and villages in the EU, euro.



Source: Eurostat, Economic Accounts for Agriculture;Updated: January 2016.

In terms of income between typical urban and rural areas in the EU, although there are differences, it is clear that in recent years this difference has fallen. If, in 2007, the income difference was around 65%, in 2015 it is approximately 25% and this is a result of the growing average net income in cities around 13% compared to 2007, and in the villages around 47% compared to 2007. This is largely due to the support provided under the CAP and the Balanced Territorial Development Policies.

In Bulgaria, unlike the EU Member States, the income in the villages is about 50% lower than the income in the cities. However, after 2007, the average net income in rural areas increased around 94% compared

to 2007, which determines the importance of agriculture for rural employment. Unemployment in rural areas is a more complex concept of explanation, its changes can not be explained only by labor remuneration, educational level, and the number of the active population. In this way, the increase in labor remuneration in agriculture can solve somewhat the problems of rural unemployment and the demand for labor in the sector, and hence have a positive impact on the others related to the levels of poverty, the standard of living and labor migration.

4. Conclusion

Both in the EU and in Bulgaria it is evident that agriculture has a solid place both for achieving higher employment and higher incomes for the rural population and for enhancing the viability of rural areas. With weak agriculture, the EU would not only threaten its food security but also weaken the socio-economic development of rural areas. Achieving a sustainable and profitable farming activity will be relevant to employment, growth and poverty needs as uncompetitive and inefficient holdings can not generate growth and provide employment and adequate income in the medium and long term.

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Security, technologies and economic competitiveness

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Abstract.
Security, technologies and economic competitiveness are an immutable part of the agenda of economic and political forums of last decades. The article studies how technological changes are influencing the security. National security system is presented through National Security Model (NSM) and technology influence is considered for major sub-systems in this model. Also, a Global Security Index (GSI) for measuring economic security is introduced.
Keywords: security, technology, competitiveness

Introduction

Security usually means protection against risk. In broader sense security is the management of the risk. And commonly by security we mean national security.

The subject of study in this article is namely the national security and specifically economic security. And the matter of study is how technologies change the paradigm of economic security and the practical approaches for assuring economic security.

Historically the national security is first considered as military security. Later, political security is considered – internal and external. The term economic security is first used in 1971 by Ministry of International Trade and Economy of Japan denoting dependency of the economic growth on international relations.

In the today's changing world, security is also changing and obtains much broader meaning than ever before.

National Security Model (NSM). Studying and managing the National Security System

One attempt to systemize different aspects of security is the next model proposed by the author (Stoynov, 2016):

The model considers the National security system at two main dimensions.

The first dimension is existential dimensions. It considers the main subsystems from point of view of society. They are: Environment (Nature), Economy, Policy and Society.

The second dimension is Security dimension. It includes the following subsystems: Risks, Exposures, Security Products, Security Resources and Security Management. Each of these subsystems intersects with every one of the subsystems in the existential dimensions which gives 20 subsystems of more granular level.

Environment resource for security can be any natural factor which can be actively used for creating security products. For example, relief can be actively used by armies to neutralize the attacks of enemy. Climate conditions also may be used during war to obtain some advantages against the enemy. Waters can be used as transportation route for military units, but also as barrier in front of enemy. There are cases when dams are destroyed during military actions to neutralize the advancement of the enemy.

Economic resources for security are any economic resources with security use: labor (with knowledge and skills), capital, land, entrepreneurship. For example, military industry uses these resources to produce weapon and military equipment. The national economy itself may be considered generally as economic resource for security with its pulsing degree of militarization in different periods (mobilization, war, conversion, peace period).

Political resources for security are mainly the state itself with its central and local administration as well as specialized security organizations (army, police, fire brigades etc.). One of the main reasons of the state itself is to guaranties the security and sustainable development of the nation.

Environmental exposures include any natural resources which could be harmed or destroyed due to natural or anthropogenic hazards. This includes contamination of air, water or soil as well as destruction of biological resources and biodiversity.

Economic exposures include all elements of the economic system of a country. In domestic aspect, it includes mainly sustainable growth, employment and financial stability (controlled and small inflation, stable

national currency etc.). In international aspect, economic exposures include mainly stability of supply chains, guaranteed export and positive trade balance, stable exchange rate.

	SOCIETY		POLICY		ECONOMY		ENVIRONMENT
Security Manage-ment	Social security management through social security policies and programs	↔	Internal and external security management through internal and external state policy	↔	Economic security management through economic security policies		Ecological security management through environmental policies and programs
	↕		↕		↕		↕
Security Resources	People, Social groups	↔	State with central and local administration, specialized security organizations (army, police,…)	↔	National economy and economic resources with security use		Relief, climate, waters, food
	↕		↕		↕		↕
Exposures	Life, personal values, human rights	↔	Sovereignty, territory, rule-based international system, national values, public safety	↔	Sustainable growth, employment, financial stability; stability of supply, positive balance, guaranteed export, reserves		Air, water, soils, biodiversity
	↕		↕		↕		↕
Security Products	Social security system	↔	Internal and external security, activities of the specialized security organizations (army, police,…)	↔	Military sector of economy, security products, security services	↔	Readiness system for protecting public safety form natural hazards
	↕		↕		↕		↕
Risks	Social risks	↔	Political violence and military treats	↔	Internal and external economic risks		Natural hazards

Fig 1. Model of National Security System. Stoynov (2016).

Political exposures include the political organization of the nation itself and more specifically sovereignity, territorial integrity, public safety, national values (in interior aspect) and rule-based international system (in foreign aspect).

Societal exposures are life and health of the people, integrity of social institutions like property, religion, culture, traditions, as well as wellbeing of people and social groups.

Environmental security products include any observational and readiness systems for monitoring and predicting of natural hazards as well as contamination of natural resources (air, water, food, soil, biodiversity) or worsening of climate conditions or radiation environment .

Economic security products are the security products (goods or services) produced by economy and more precisely by military industry, trade and logistics.

Political security product is the national security ensured by the state and more specifically by the activity of the specialized national institutions with competence in security – government, ministries (of defense, of foreign and internal affairs), army, police etc.

Social security products are any products in the frame of social security system – social services, social funds, products of the activity of different governmental and non-governmental organizations focused on social wellbeing.

Ecological security management includes set of policies and programs for sustainable and healthy environment.

Economic security management includes political economy and its instruments for sustainable economic development.

Political security management includes the state policy for achieving security of the nation and protecting national interests.

Social security management includes the social security a set of policies for wellbeing of the individual, social groups and the whole society.

As National security system is a complex system in the intersection of different areas of the society and the environment, it requires interdisciplinary knowledge and expertise which includes the knowledge, data and methodology of different sciences – natural sciences, economical sciences, political sciences and social sciences.

Systematic approach considers the social security as a complex system with many interacting subsystems as in the proposed model.

Mathematical approach uses mathematical models and permits quantitative study of the all subsystems (including the risks and the indetermination which can be modeled by stochastic techniques).

Economic approach to security systems pays attention mainly on the input (security resources), production and output (security products) of security system. Here a main problem is to distribute the resources in an effective, efficient and optimal way to produce needed security.

Political (managerial) approach or managerial approach deals mainly with the management of the security exposures and security products to achieve security goals.

Managerial approach to Security system deals with taking decisions and performing actions to obtain the security goals.

This process has the following steps: Problem formulation, Gathering information, Analysis of obtained information, Taking optimal decision, Applying the decision – action, Monitoring and feedback from the action.

Operational management is management oriented to performing prescribed operations in an efficient way. Operational management is focused on operation.

Tactic management is management oriented to behavior in specific situation. Tactic management is focused on the tactics.

Strategic management is management oriented to the goals of the system in its environment and with vision for future. Strategic management is focused on the vision, strategies and programs.

Functional approach is approach related to specialization. Operations are grouped into activities and activities are grouped into functions and these functions are managed separately. Functional approach focuses on organizational structure and processes, on formal part of the system and formal regulation of system environment. It takes operational techniques at all management levels.

Situation approach is related to the behavior in specific situation. This means to analyze different scenarios and to choose optional scenarios in real time. Situational management focuses on the scenarios for environment and behavior of the system depending on the scenarios. It emphasizes on the tactics.

Program management is related to long-term goals and planning and consists of creating and following programs. Program management is focused on goals and their achieving. It emphasizes on the strategy.

Technologies – the Forth Industrial Revolution and its impact on security

The fast developing technology today is altering fundamentally the way we live, work, and relate to one another. The scale, scope, and complexity of this transformation is so large that experts called it Forth Industrial Revolution.

The First Industrial Revolution used water and steam power to mechanize production. The Second used electric power to create mass production. The Third used electronics and information technology to automate production. The Fourth Industrial Revolution is characterized by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres.

How the Forth Industrial Revolution influences the security system?

The economists Erik Brynjolfsson and Andrew McAfee have pointed out, the revolution could yield greater inequality, particularly in its potential to disrupt labor markets. As automation substitutes for labor across the entire economy, the net displacement of workers by machines might exacerbate the gap between returns to

capital and returns to labor. On the other hand, it is also possible that the displacement of workers by technology will, in aggregate, result in a net increase in safe and rewarding jobs.

In addition to being a key economic concern, inequality represents the greatest societal concern associated with the Fourth Industrial Revolution. The largest beneficiaries of innovation tend to be the providers of intellectual and physical capital—the innovators, shareholders, and investors—which explains the rising gap in wealth between those dependent on capital versus labor. Technology is therefore one of the main reasons why incomes have stagnated, or even decreased, for a majority of the population in high-income countries: the demand for highly skilled workers has increased while the demand for workers with less education and lower skills has decreased. The result is a job market with a strong demand at the high and low ends, but a hollowing out of the middle.

This helps explain why so many workers are disillusioned and fearful that their own real incomes and those of their children will continue to stagnate. It also helps explain why middle classes around the world are increasingly experiencing a pervasive sense of dissatisfaction and unfairness. A winner-takes-all economy that offers only limited access to the middle class is a recipe for democratic malaise and dereliction.

One of the greatest individual challenges posed by new information technologies is privacy. We instinctively understand why it is so essential, yet the tracking and sharing of information about us is a crucial part of the new connectivity. Debates about fundamental issues such as the impact on our inner lives of the loss of control over our data will only intensify in the years ahead. Similarly, the revolutions occurring in biotechnology and AI, which are redefining what it means to be human by pushing back the current thresholds of life span, health, cognition, and capabilities, will compel us to redefine our moral and ethical boundaries.

More than 30 percent of the global population now uses social media platforms to connect, learn, and share information. In an ideal world, these interactions would provide an opportunity for cross-cultural understanding and cohesion. However, they can also create and propagate unrealistic expectations as to what constitutes success for an individual or a group, as well as offer opportunities for extreme ideas and ideologies to spread.

As the physical, digital, and biological worlds continue to converge, new technologies and platforms will increasingly enable citizens to engage with governments, voice their opinions, coordinate their efforts, and even circumvent the supervision of public authorities. Simultaneously, governments will gain new technological powers to increase their control over populations, based on pervasive surveillance systems and the ability to control digital infrastructure. On the whole, however, governments will increasingly face pressure to change their current approach to public engagement and policymaking, as their central role of conducting policy diminishes owing to new sources of competition and the redistribution and decentralization of power that new technologies make possible.

Ultimately, the ability of government systems and public authorities to adapt will determine their survival. If they prove capable of embracing a world of disruptive change, subjecting their structures to the levels of transparency and efficiency that will enable them to maintain their competitive edge, they will endure. If they cannot evolve, they will face increasing trouble.

This will be particularly true in the realm of regulation. Current systems of public policy and decision-making evolved alongside the Second Industrial Revolution, when decision-makers had time to study a specific issue and develop the necessary response or appropriate regulatory framework. The whole process was designed to be linear and mechanistic, following a strict “top down” approach.

But such an approach is no longer feasible. Given the Fourth Industrial Revolution’s rapid pace of change and broad impacts, legislators and regulators are being challenged to an unprecedented degree and for the most part are proving unable to cope.

How, then, can they preserve the interest of the consumers and the public at large while continuing to support innovation and technological development? By embracing “agile” governance, just as the private sector has increasingly adopted agile responses to software development and business operations more generally. This means regulators must continuously adapt to a new, fast-changing environment, reinventing themselves so they can truly understand what it is they are regulating. To do so, governments and regulatory agencies will need to collaborate closely with business and civil society.

The Fourth Industrial Revolution will also profoundly impact the nature of national and international security, affecting both the probability and the nature of conflict. The history of warfare and international security is the history of technological innovation, and today is no exception. Modern conflicts involving states are increasingly “hybrid” in nature, combining traditional battlefield techniques with elements previously associated with nonstate actors. The distinction between war and peace, combatant and noncombatant, and even violence and nonviolence (think cyberwarfare) is becoming uncomfortably blurry.

As this process takes place and new technologies such as autonomous or biological weapons become easier to use, individuals and small groups will increasingly join states in being capable of causing mass harm. This new vulnerability will lead to new fears. But at the same time, advances in technology will create the

potential to reduce the scale or impact of violence, through the development of new modes of protection, for example, or greater precision in targeting.

Technology as primary risk exposure

The technologies become an exposure and primary concern and object of protection. IT security – data security, applications security, network security.

By embracing "agile" governance, just as the private sector has increasingly adopted agile responses to software development and business operations more generally. This means security management must continuously adapt to a new, fast-changing environment. To do so, governments and regulatory agencies will need to collaborate closely with business and civil society.

From one side, fast use of carbon economy creates serious global ecological problems: global warming, contamination of Earth, deforestration. From other side technologies can help to move to hydrogen economy, to reduce contamination, to transit to clear, green economy.

Economic security and economic competitiveness

There is a clear relation between economic security and economic competitiveness. More secure economy means also more competitive economy and vice versa. But there are still differences between these two concepts. Economic security means protection from treats for economy. Economic competitiveness means good performance even if no treat exists for the economical system.

Since 2005, the World Economic Forum has published the Global Competitiveness Index (GCI) developed by Xavier Sala-i-Martin (2004) in collaboration with the Forum.

Competitiveness is defined as a set of institutions, policies, and factors that determine the level of productivity of an economy, which in turn sets the level of prosperity that the country can achieve.

Here we propose a Global Security Index (GSI). Security is considered in the context of the presented National Security Model (NSM) and by analogy with GCI is defined as a set of institutions, policies, and factors that determine the level of security of an economy, which in turn sets the level of economic stability that the country can achieve.

The GSI combines indicators which are grouped into 7 pillars: 3 internal economic security pillars – growth, employment, inflation control; 3 external economic security pillars - supply stability, guarantied export, positive financial balance; and one additional pillar – reserves and other economic security assets.

The GSI pillars are in turn organized into three subindexes: basic requirements, efficiency enhancers, and innovation and sophistication factors. The three subindexes are given different weights in the calculation of the overall Index, depending on each economy's stage of development, as proxied by its GDP per capita and the share of exports represented by raw materials.

While global GSI design is currently more or less completed, detailed design and use of the index is still undergoing. The next steps of the research here is to precise the indicators taking into account the phenomena related to globalization and technological industry move and also to apply this index to different countries starting with leading economic and political powers and to test usage of the index for description and prediction of their development.

Conclusion

There has never been a time of greater promise, or one of greater potential peril. Today's decision-makers, however, are too often trapped in traditional, linear thinking, or too absorbed by the multiple crises demanding their attention, to think strategically about the forces of disruption and innovation shaping our future.

In the end, it all comes down to people and values. We need to shape a future that works for all of us by putting people first and empowering them. In its most pessimistic, dehumanized form, the Fourth Industrial Revolution may indeed have the potential to "robotize" humanity and thus to deprive us of our heart and soul. But as a complement to the best parts of human nature—creativity, empathy, stewardship—it can also lift humanity into a new collective and moral consciousness based on a shared sense of destiny. It is incumbent on us all to make sure the latter prevails.

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