

UDC 330.65

## THE NEED FOR DEVELOPING INNOVATIVE PROJECTS IN THE TELECOMMUNICATIONS SECTOR AS A GUARANTEE OF THE COUNTRY'S COMPETITIVENESS

VLADIMIR HARUTYUNYAN, MARIAM POGHOSYAN

---

*National Academy of Sciences of the Republic of Armenia, Institute of Economics after M. Kotanyan*

---

Innovations are the drivers of the world and the telecommunications sector is the area having strategic importance. The purpose of the study is to identify the importance of developing and introducing innovative projects for the communications sector as a key to improving the country's competitiveness.

The study examines the impact of the communications sector on improving the country's competitiveness, analyzing the data from the World Competitiveness Report. As a result, we come to the conclusion that changes in the field of communications, innovations introduced favorably affect the competitiveness of the country.

**Keywords:** communication, telecommunications, innovation, competitiveness, technology, development

**Introduction:** Innovations are the drivers of the world and it is becoming visible in all the sectors. Companies in the telecommunications sector are involved in continuous changes; they make changes in the work of other sectors and the services provided by them. These companies must develop advanced technologies, be flexible, and evaluate every opportunity and change. The entire economy currently depends on the creation of a dynamically developing, competitive and innovative telecommunications infrastructure.

The purpose of the study is to identify the importance of developing and introducing innovative projects for telecommunications, in particular, for the communications sector, as a key to improving the country's competitiveness.

The peculiarities of the introduction of innovative projects in the field of communications, as well as the impact of the communications sector on improving the competitiveness of the country is being examined within the study.

**Problem:** For many years, the telecommunications sector has been one of the dynamically developing and noteworthy areas of the world economy. The changes are happening so fast that the sector's technology developers should be in the continuous process of developing innovations, in order to be able to satisfy consumers from day to day changing needs.

In the current era of globalization, innovation is considered as a criterion of a developed economy. The development of the innovation ecosystem is

one of the main keys to the development and strengthening of the country's competitiveness.

**Literature review:** According to Friedrich List, “the present state of the nations is the result of the accumulation of all discoveries, inventions, improvements, perfections, and exertions of all generations which have lived before us. Each nation is productive only in the proportion in which it can apply the innovations inherited from previous generations and add new achievements, taking into account the territory of this state, geographical and natural conditions, population and political power” [1, p. 110].

The rapid development of technology and innovations changed the communications sector to a crucial role-player for the development of the economy. Countries create good economies and develop it, but not inherit. The basis of developed countries is constantly developing organizations.

Organizations achieve a competitive advantage over other strong organizations through their initiative and efforts. It is more profitable for them to have strong competitors and demanding consumers in the domestic market, because these factors make organizations work more for development. And despite the fact that organizations that have achieved success in different countries have different development strategies, they are united by a very important thing—the desire for innovation. These organizations carry out innovations in the broadest sense of the word—the introduction of new technologies, the introduction of new processes, the creation of new products, the introduction of new production processes, etc. The introduction of innovation itself involves the acquisition of new skills and knowledge and capital investment. Innovations that provide a competitive advantage in international markets are based on forecasting the needs of both domestic and foreign consumers. Information that is either not available to competing companies, or they do not need it, plays an important role in creating innovations.[2, pp. 550-551]

Technology is one the most important resource of any nation and its management is a matter of global focus.[3] In order to have a competitive advantage, telecommunications companies innovate by applying R&D departments, localizing successful international experience. This industry is characterized by having a high pace of technological development, which may be explained by the links between the sector's own R&D and the creation of numerous innovations.[4]

According to Porter, innovation manifests itself to solve problems within the country and meet the specific needs of consumers, and the telecommunications organizations achieve a competitive advantage by implementing innovative projects and processes [2 ], [4]:

At present, the needs of society are growing every day, and to meet them, organizations are introducing new solutions and processes.

**Analysis:** The communications sector is a strategically important area for countries. It is no coincidence that in the World Competitiveness report,

among the most important pillars that affect the level of competitiveness of countries are innovation, ICT adoption or Technological readiness, components of which characterize the field of communication. The results of the World Competitiveness Report 2019 show that many organizations are choosing to implement breakthrough innovative ideas, despite the fact that there is still a lot of room for work both on the issue of localization of technologies and encouraging the implementation of innovations. Only 4 countries have scored higher than 80 in the Innovation capability pillar- Germany, USA, Switzerland, Taiwan and only ¼ of the countries that scores higher than 50. In this pillar Armenia is ranked 62nd with 39 points, while the world median is 38 points. Also, according to the pillar of ICT Adoption ranks 59th among 141 countries.[5]

Let us look at the change in Armenia's position among 125-141 countries in terms of ICT Adoption pillar, according to the World Competitiveness Report for 2006-2019 ( see Table 1)

**Table 1**

**The change in Armenia's position in the Technological readiness/ICT Adoption pillar 2006-2019 [6].**

Year/ Number of countries	Mobile-celular subscriptions per 100 pop.		Fixed-broadband Internet subscriptions per 100 pop.		Internet users % of adult population		Technological readiness/ICT Adoption pillar index
	Value	Position	Value	Position	Value	Position	Position/Score
2006/125		105				86	104/2.6
2007/131							104/ 2.55
2008/134		123		102		102	112/ 2.6
2009/133		93		86		109	105/ 2.9
2010/139		81		108		111	108/ 3
2011/142	125	33	2.7	86	37	68	88/ 3.4
2012/144	103.6	80	5	75	15.3	106	92/ 3.4
2013/148	106.9	80	6.6	74	39.2	84	72/ 3.7
2014/144	112.4	70	7.9	70	46.3	71	71/ 3.7
2015/140	115.9	64	9.1	71	46.3	75	75/ 3.7
2016/138	115.1	72	9.6	70	58.2	65	71/ 4
2017/137	114.8	74	10.1	70	62	62	77/ 4.1
2018/140	119	71	10.8	71	64.3	61	56/ 59.2
2019/141	121.3	62	11.8	71	64.7	77	59/ 62

Changes in the field of communications in Armenia began when the monopoly of the sphere was eliminated and in 2005 VivaCell-MTS

("VivaCell-MTS") also started operating in Armenia»). In 2008 the company managed to gain a significant market share, exceeding 78% [7].

Comparing the main indicators of the technological readiness/ICT adoption with the changes taking place in the field of communications in Armenia, it is obvious that in 2008 and later the improvement of the position in this column is directly related to the entry of the 3rd operator -Orange Armenia.

Analyzing the information presented on the organization's website, Orange has acted as an innovative brand in Armenia, leading a number of innovations in the country in a short period of its activity, such as the introduction of HD voice, which made Armenia the second country in the world to own this technology, the introduction of mobile broadband Internet with a speed of up to 42.2 MB/s in 501 communities of Armenia and the introduction of a speed of up to 26.1 Mb/s in all other coverage, etc., which aimed to make the world's technological achievements accessible to the largest possible part of the population of Armenia [8].

In 2009, Viva-MTS announced the commercial launch of its third-generation (3G) network. For the first time in Armenia, the 3G network was launched in the regions. For the first time in Armenia, the 3G network was provided in the territory of the Yerevan metro. The upgraded network provided subscribers with the opportunity to use innovative services of Viva-MTS such as video calls and high-speed mobile Internet.

Viva-MTS launched a 4G/LTE network for the first time in Armenia in 2010. This gave the subscribers an opportunity to enjoy much faster Internet speeds and work with higher efficiency.[9]

2013-2017 compiler-the change in position is not very large, as we can characterize this period as a saturation period, when the mobile market was saturated, and organizations were already working to retain engaged customers and modernize the network. The change in the score for 2018-2019 Global Competitiveness report is connected to the change in the calculation in ICT Adoption pillar. However, the position has improved by 21 points, which can also be explained by the development and implementation of related services and applications by organizations, as well as the growth in the number of fixed and mobile Internet users and modernization of the network.

Thus, considering the data of the World Competitiveness report and the changes taking place in the RA communications sector, we can state that the entry of new telecom operators into the market has created favorable conditions for the development of the sphere, the formation of a competitive environment and, consequently, the improvement of the country's competitiveness. Along with all this, an important role is played by innovative projects implemented in the sphere, which responded to the requirements of the time, which give subscribers the opportunity to use the best services.

## REFERENCES

1. List F. 1841, The National System of Political Economy.
2. **Майкл Портер**, Конкурентные Преимущества Стран  
[https://seinst.ru/files/vehi\\_6\\_036\\_porter\\_konkurentnye-preimushchestva.pdf](https://seinst.ru/files/vehi_6_036_porter_konkurentnye-preimushchestva.pdf)
3. Telecom's Innovation Management, An Analysis of the R&D's Key Success Factors to Thrive in a Tough Industry, L. Rodrigo Trejo, Zhiyuan Gao.
4. Telecom's Innovation Management, An Analysis of the R&D's Key Success Factors to Thrive in a Tough Industry, L. Rodrigo Trejo, Zhiyuan Gao.
5. Global Competitiveness Report 2019.
6. Global Competitiveness Report 2006-2019.
7. <https://www.mts.am/about-us/viva-mts-to-armenia/Our-history>
8. <https://web.archive.org/web/20150808004119/http://orangearmenia.am/about-orange-armenia/>
9. <https://www.mts.am/about-us/viva-mts-to-armenia/Our-history>

---

**ԻՆՈՎԱՑԻՈՆ ԾՐԱԳՐԵՐԻ ՄՇԱԿՄԱՆ ԱՆՀՐԱԺԵՇՏՈՒԹՅՈՒՆԸ  
ԿԱՊԻ ՈԼՈՐՏԻ ԿԱԶՄԱԿԵՐՊՈՒԹՅՈՒՆՆԵՐՈՒՄ՝ ՈՐՊԵՍ ԵՐԿՐԻ  
ՄՐՑՈՒՆԱԿՈՒԹՅԱՆ ԳՐԱՎԱԿԱՆ**

**ՎԼԱԴԻՄԻՐ ՀԱՐՈՒԹՅՈՒՆՅԱՆ, ՄԱՐԻԱՄ ՊՈՂՈՍՅԱՆ**

---

*Հայաստանի Հանրապետության գիտությունների ազգային ակադեմիա, Մ. Քոթանյանի անվան տնտեսագիտության ինստիտուտ*

---

Ինովացիաները շարժում են աշխարհը, իսկ հեռահաղորդակցությունն էլ յուրաքանչյուր երկրի ռազմավարական կարևոր նշանակություն ունեցող ոլորտներից է: Հետազոտության նպատակն է բացահայտել ինովացիոն ծրագրերի մշակման և ներդրման կարևորությունը կապի ոլորտի համար՝ որպես երկրի մրցունակության բարձրացման գրավական: Հետազոտության շրջանակներում ուսումնասիրվել է կապի ոլորտի ազդեցությունը երկրի մրցունակության բարձրացման վրա, վերլուծելով Համաշխարհային մրցունակության զեկույցի տվյալները: Արդյունքում հանգում ենք նրան, որ ՀՀ կապի ոլորտում տեղի ունեցող փոփոխությունները, ներդրվող ինովացիաները նպաստավոր են ազդում երկրի մրցունակության վրա:

**Բանալի բառեր.** կապ, հեռահաղորդակցություն, ինովացիա, մրցունակություն, տեխնոլոգիաներ, զարգացում:

**НЕОБХОДИМОСТЬ РАЗВИТИЯ ИННОВАЦИОННЫХ ПРОЕКТОВ В  
ТЕЛЕКОММУНИКАЦИОННОМ СЕКТОРЕ КАК ЗАЛОГА  
КОНКУРЕНТОСПОСОБНОСТИ СТРАНЫ**

**ВЛАДИМИР АРУТЮНЯН, МАРИАМ ПОГОСЯН**

---

*Национальная академия наук Республики Армения, Институт экономики имени М. Котаняна*

---

Инновации являются движущей силой мирового развития, а телекоммуникационный сектор- сферой, имеющей стратегическое значение. Целью исследования является выявление важности разработки и внедрения инновационных проектов для сферы связи, как ключа к повышению конкурентоспособности страны.

В исследовании рассматривается влияние сектора коммуникаций на повышение конкурентоспособности страны, анализируются данные доклада о мировой конкурентоспособности. В результате мы приходим к выводу, что изменения в сфере коммуникаций, внедряемые инновации благоприятно влияют на конкурентоспособность страны.

**Ключевые слова:** связь, телекоммуникации, инновации, конкурентоспособность, технология, развитие.

*Ներկայացվել է խմբագրություն 07.04.2021  
Երաշխավորվել է տպագրության 20.05.2021*