

## **THE EVOLUTION OF THE MARKET OF LANDLINE AND MOBILE TELEPHONY SERVICES IN THE REPUBLIC OF MOLDOVA**

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**Abstract:** The paper presents a brief overview of the current development of the market of fixed and mobile telephony services in the Republic of Moldova. The topicality of the research is determined by the changes in the behavior of consumers of mobile telecommunications services in the last 5-6 years, during the Covid and post-Covid period. The main purpose of the research is to highlight the main characteristic trends in the development of the market of landline telephony and mobile telephony services in the Republic of Moldova. For this purpose, mathematical methods were used for the comparative analysis of official statistical data. The statistical data of the National Regulatory Agency in Electronic Communications and Information Technology (ANRCETI), published in the period 2018-2023, were analyzed. Key trends and issues facing this market are highlighted and discussed. Following the analysis of the evolution of the landline services market, it was found that this market shows a downward trend, with the number of subscribers (telephone lines) decreasing in the last 6 years by almost 260.8 thousand consumers (-23.53%). The volume of traffic in landline networks decreased by 2.11 times in the last 6 years, and the revenues from this service decreased by 2.5 times (from 556.9 million MDL in 2018 to 222.4 million MDL in 2023). This evolution has largely been influenced by the evolution of mobile phone services and mobile internet. In the last 6 years, the number of active SIM cards increased by 373.9 thousand (+10.28%). However, the volume of voice traffic in mobile networks shows a downward trend, the exception being the period of the Covid pandemic (2020-2021). Likewise, a continuous annual decrease of SMS messages was noted (from 1088.4 million in 2018 to 744.5 million in 2023). The changes that have taken place in consumer preferences are highlighted and analyzed, and aspects related to the prospects for the development of the market of fixed and mobile telephony services in the Republic of Moldova are examined.

**Keywords:** market, services, mobile telephony, cable telephony

**JEL Classification:** L96

### **1 Introduction**

According to the statistical data of the National Regulatory Agency in Electronic Communications and Information Technology (ANRCETI, 2023), the volume of total revenues from electronic communications services in the year 2023 in the Republic of Moldova was 6286.4 million MDL and was mainly obtained from mobile phone services (3109.8 million MDL or 49.5%), which showed an increase of 5.3% or 157.7 million MDL. At the same time, revenues from fixed telephony services decreased by 17.6% compared to 2022 and have a share of 3.5% in the aggregate total revenue. At the same time, revenues from fixed Internet and dedicated mobile Internet access services hold the shares of 23.7% and 2.3%, respectively, in the structure of the global income achieved by the provision of telecommunications services. About 77.2% of the total cumulative income is owned by 3 companies: JSC "Orange Moldova" (35.4%), JSC "Moldtelecom" (26.2%) and JSC "Moldcell"

(15.6%). Although on 31.03.2024 there were 23 fixed telephony service providers active in the Republic of Moldova, however, JSC "Moldtelecom" held 92.5% of the landline services market (ANRCETI, 2024), and the macroeconomic indicators of this markets are strongly influenced by the economic activity of this monopolist.

In the context of the above facts, it is of interest to analyze how the market of fixed and mobile telephony services has evaluated in recent years, to highlight the main trends and problems present in this market, to identify consumer preferences and highlight trends in the evolution of telephone services in the Republic of Moldova.

## **2 Material and method**

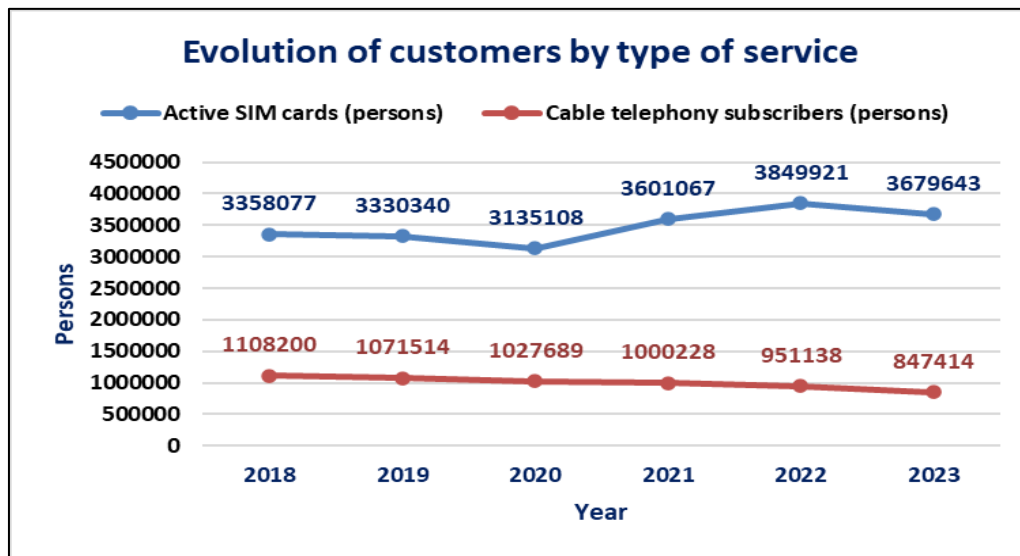
The paper analyzes the statistical data regarding the evolution of landline and mobile telephony services in the Republic of Moldova during 2018-2023. For this purpose, the official statistical data, provided by The National Regulatory Agency for Electronic Communications and Information Technology (ANRCETI), disposed on the official website of the agency (<https://www.anrceti.md>) under form of annual statistical reports, are analyzed. Also, series of macroeconomic indicators were used, published on the official website of the National Bureau of Statistics of the Republic of Moldova (<http://statistica.gov.md>). The comparative analysis of the data was performed using the mathematical and computer tools for statistical analysis of the data sets, and the results are presented in graphical form.

## **3 Results and discussions**

According to statistical data provided by The National Regulatory Agency for Electronic Communications and Information Technology (ANRCETI, 2023) the number of subscribers to landline telephone services was 847,414 people in 2023 (Figure 1). This indicator has constantly decreased in the last 6 years with almost 260.8 thousand consumers (-23.53%). The downward trend intensified in the first semester of 2024, when the number of subscribers decreased by 14.2% and reached 808,555 people (ANRCETI, 2024). This sudden decrease in the customer base was determined, to a large extent, by the increase by JSC "Moldtelecom" from January 1, 2024 of the tariff for fixed telephony. Thus, the subscription with 200 minutes of national calls increased from 6 MDL to 40 MDL (Moldtelecom, 2024), generating a wave of contract cancellations by consumers. As a result of this fact, the fixed telephony penetration rate per 100 households decreased in the first semester of 2024 by 3.2% and constituted 60.7% (ANRCETI, 2024).

At the same time, the number of subscribers to mobile phone services shows an increasing trend in the last 6 years, the number of active SIM cards increased by 373.9 thousand units (+10.28%) (Figure 1). On January 1, 2023, according to NBS estimates (NBS, 2024), the population of the Republic of Moldova was 2,423,300 people. Thus, on average, each inhabitant of the Republic of Moldova currently owns ~1.52 SIM cards.

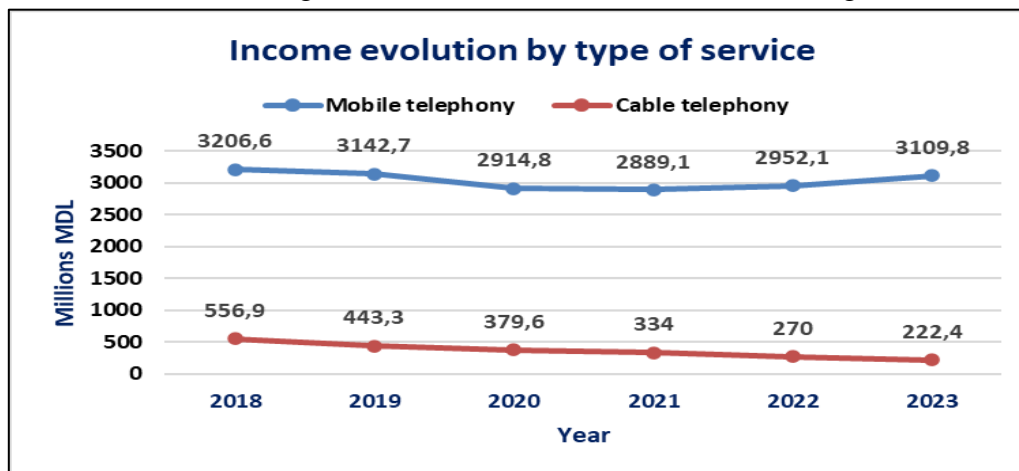
Examining the evolution of revenues from cable telephone services, it can be found that these revenues have decreased 2.5 times over the last 6 years (from 556.9 million MDL in 2018 to 222.4 million MDL in 2023) (Figure 2). The increase from January 1, 2024 by JSC "Moldtelecom" of tariffs for this service resulted in an increase in revenues in the first quarter of 2024 (compared to the first quarter of 2023) by 26.4% (or 11.4 million MDL) (ANRCETI, 2024). The new tariffs for landline services also stimulated a 43.4% increase in average monthly revenue per user (ARPU) compared to the same period in 2023 (ANRCETI, 2024). It remains to be seen which one it will be the impact of the tariff policy of JSC "Moldtelecom" on the volume of annual revenues in 2024 and whether the downward trend of revenues will change to an increasing one.



**Figure 1. Evolution of customers by type of service**

Source: Based on the official statistical data (ANRCETI 2018, 2019, 2020, 2021, 2022, 2023)

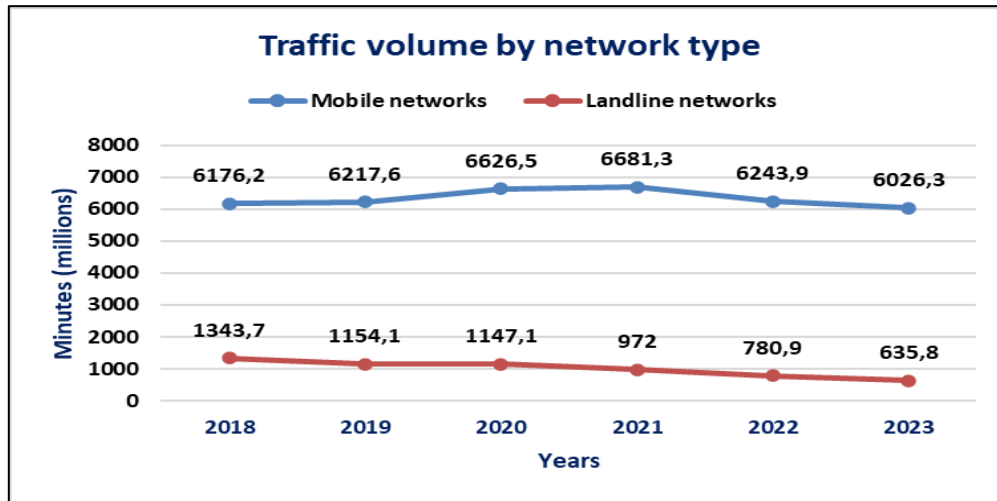
On the other hand, the revenues of mobile phone companies have recently fluctuated around revenues of 3000 million MDL per year (~ 155 million euros) (Figure 2). However, in the last 3 years there has been an increasing trend in the revenues of mobile phone companies. It is also obvious that mobile phone networks generate a higher net profit than terrestrial ones. In the year 2023 the revenues from mobile services were 14 times higher than revenues from cable services (Figure 2).



**Figure 2. Income evolution by type of service**

Source: Based on the official statistical data (ANRCETI 2018, 2019, 2020, 2021, 2022, 2023)

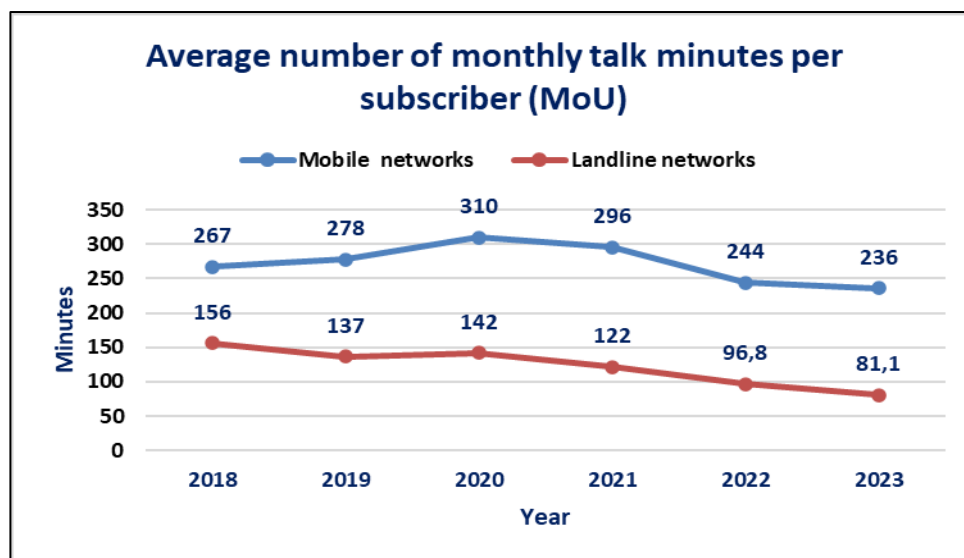
Analyzing the annual evolution of the volume of traffic in fixed and mobile networks (Figure 3), it can be easily seen that voice traffic in landline networks has decreased by 2.11 times in the last 6 years. This trend continues to be present in 2024. Thus, in the first quarter of 2024 voice traffic decreased by -16.2% compared to the similar period of the previous year (ANRCETI, 2024). In mobile networks, voice traffic stagnates at 6000 million minutes per year, except for 2 years of Covid (2020-2021), when it increased by about 7% (Figure 3). In 2023, the ratio of mobile to landline voice traffic was ~9.5.



**Figure 3. Annual traffic volume by type of service**

Source: Based on the official statistical data (ANRCETI 2018, 2019, 2020, 2021, 2022, 2023)

The evolution of the average monthly traffic generated by a user (MoU) confirms the highlighted dependencies in the evolution of voice traffic volume in both types of networks (Figure 4). We notice that this indicator is decreasing in the last 4 years. However, a mobile phone user in 2023 spoke three times more on the network than a landline user.

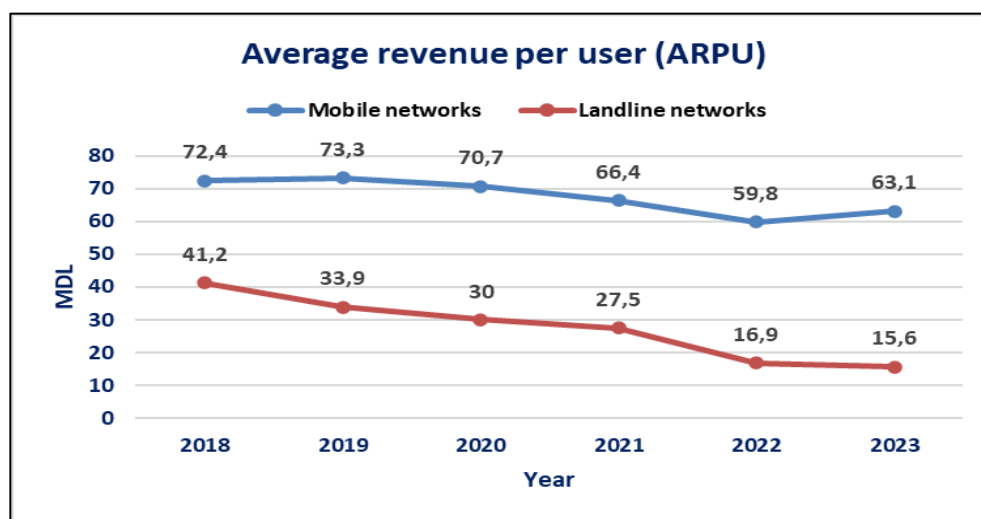


**Figure 4. Evolution of MoU index**

Source: Based on the official statistical data (ANRCETI 2018, 2019, 2020, 2021, 2022, 2023)

The analysis of the evolution of the average revenue per user (ARPU) of landline companies during the years 2018 - 2023 (Figure 5) shows a constant decrease, shrinking by 2.64 times (-62%). The increase in the tariff for the fixed telephony subscription by JSC "Moldtelecom" at the beginning of 2024 allowed this trend to be stopped in the first quarter of 2024, the ARPU value increasing by 52.5% and reaching 23.8 MDL (ANRCETI, 2024).

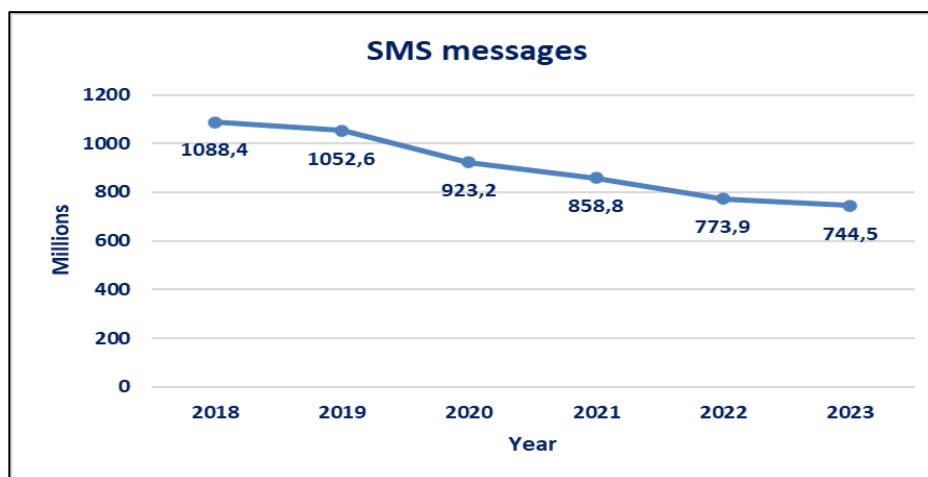
A similar trend in the evolution of the ARPU value is also observed in the field of mobile telephony services. However, after a constant decrease in the years 2020-2022, the ARPU value increased in 2023 by 5.5% and constituted 63.1 MDL (Figure 5). It should be noted that this year ARPU in mobile networks has become 4 times higher than ARPU in landline networks.



**Figure 5. Evolution of ARPU index**

Source: Based on the official statistical data (ANRCETI 2018, 2019, 2020, 2021, 2022, 2023)

The emergence and maintenance of a constant downward trend in the annual volume of SMS messages should be mentioned separately. In the last 6 years, the number of SMS messages has decreased by 31.6% (Figure 6). The evolution of this indicator demonstrates the fact that consumers have reduced the use of GSM mobile networks in daily communication through messages, focusing more on Internet messaging.



**Figure 6. Evolution of annual volume of SMS messages**

Source: Based on the official statistical data (ANRCETI 2018, 2019, 2020, 2021, 2022, 2023)

#### 4 Conclusion

The results presented and analyzed in this paper allow the formulation of some conclusions regarding the changes that have taken place in recent years on the market of fixed and mobile telephony services. First of all, we can mention the essential changes in the behavior of the users of these services, who prefer mobile telephone services to the detriment of cable telephony, which is becoming less and less attractive to consumers. Statistically speaking, practically all the inhabitants of the Republic of Moldova have a mobile phone, starting from school age.

Secondly, customers of mobile phone companies are less and less using the mobile phone for network calls and more and more using mobile Internet communication for this purpose. This fact is confirmed by the evolution of the MoU index, which has been decreasing in recent years in both mobile and fixed telephony networks, indicating the orientation of consumers towards communication via voice and video messaging over the Internet. The orientation towards Internet messaging services is also confirmed by the observed reduction in the annual number of SMS messages on the increasing trend of the number of users of mobile telephony services.

Thirdly, mobile phone companies generate a higher net profit than landline companies. Thus, in 2024 ARPU from mobile telephony services became 4 times higher than ARPU for cable telephony services, and revenues were 14 times higher.

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