

DIGITAL TECHNOLOGIES IN LEBANESE BUSINESS

Digital economy nowadays has several elements as e-commerce and special platforms for trading, financial services (fintech) for payments, digital business processes, social platforms and messengers. All these elements are based on digital technologies such IoT, artificial intelligence, cloud computing – digital ecosystem.

Lebanon is the country where we can find some problems with penetration of digital technologies:

- financial and economic crisis with political instability;
- cash payments instead of e-wallets because a lack of reliance to banking system. According the World bank estimation, Lebanese population became strongly reliant on cash: in 2022 the size of the cash of payments in the economy had reached 45.7 percent of the GDP, but in 2015 it was only 5.6 percent and in 2020 – 14.2 percent. In parallel, as per the World Bank estimation, the number of bank accounts decreased from 77.3 accounts per 100 adults in 2010 to 46.9 accounts per 100 adults in 2021. Bank accounts' numbers are expected to decrease with the recent financial crisis in Lebanon in 2019-2020 [1];

- problems with electricity, investment in 4-5G telecommunication, state regulation in cloud-technologies. Power outages, inconsistent internet connectivity, and limited broadband penetration hinder the widespread adoption of digital technologies. Consistent and reliable electricity supply is essential for the operation of digital infrastructure and businesses. Reforms in the electricity sector are necessary to ensure a stable and uninterrupted power supply. Moreover, a reliable and affordable telecommunications infrastructure is crucial for a digital economy. Lebanon's telecom sector has faced challenges which paused all ongoing investments in fiber-optic networks and the expansion of 4G coverage, as well as the launch of the 5G network that aimed at improving connectivity. Lebanon ranks 95 out of 141 countries in ICT adoption. Average fixed broadband speeds are 9.21 Mbps, and 5G coverage is under 1%. Moreover, the requirement set by The Central Bank of Lebanon (CBL) for digital players to host their data locally and avoid cloud-based solutions presents a significant barrier to innovation and scalability. These regulations can limit access to advanced technologies and deter international investors from entering the Lebanese market [1];

- the hyperinflation and trends of shop online. The rise of e-commerce in Lebanon is another significant trend driving the growth of the digital economy. As more people shop online, there is a growing demand

for secure and convenient payment options – digital payments;

- instability in the economy of the country leads to the low level of cybersecurity. Lebanon has also experienced a high number of cyberattacks on private records held by government, on government websites. To mitigate these risks, investors first have to invest in cybersecurity infrastructure, develop a skilled workforce, and implement robust regulations to protect sensitive data.

The description of the information technology sector (ICT) in Lebanon has been shown to grow steadily, with its market size reaching approximately 436 million USD in 2016. This figure was projected to grow at a rate of 9.7 percent by 2019, bringing the market size to 543.3 million USD. But the next 6 years were not successful but the ICT sector in Lebanon comprises approximately 800 companies now, most of which are small and medium-sized. Software and services companies employ a total of approximately 5000 highly skilled individuals, with demand for ICT skills increasing significantly annually [2].

The most important fields of ICT are the following in Lebanon:

- content development;
- mobile and smartphone applications;
- specialized applications;
- mobile and internet games;
- website development;
- electronic services;
- providing services related to the software industry;
- Lebanese Digital Content.

A total description of ICT in Lebanon is that 4.76 million cellular mobile connections were active in Lebanon in late 2025, with this figure equivalent to 81.3 percent of the total population. However, we should note that some of these connections may only include services such as voice and SMS, and some may not include access to the internet. There were 5.38 million individuals using the internet in Lebanon at the end of 2025, when online penetration stood at 91.8 percent. Lebanon was home to 4.58 million social media user identities in October 2025, equating to 78.1 percent of the total population. According the Digital Infrastructure/Connectivity report Lebanon has 86th globally (out of 105) with 44.04 Mbps mobile speed. ICT contributed roughly 1.1 billion USD (2.1%) to the national GDP as of 2018, before the crisis. It is not so much. The total potential on GDP is forecasted to reach 7 billion USD by 2025-2026.

There are about 48% of Lebanese ICT companies focus on software (healthcare, education, banking), 38% on web solutions, and 14% on mobile applications. From all software companies about 80% of software

firms are engaged in exports, with the Gulf region being the primary destination.

Conclusion: we are witnessing and participating in the transition to a digital economy in Lebanon. Despite challenges, Lebanon ranked 23 out of 141 countries for digital skills among the active population.

Digital technologies in Lebanon are growing rapidly, driven by a resilient, export-oriented ICT sector with over 250+ startups and more than 10,000 professionals, despite severe economic challenges. Key areas include fintech (addressing currency devaluation), e-commerce, software development, and digital government transformation. The sector is supported by initiatives like Law 81 on electronic transactions.

To improve digital sphere in Lebanon is important: banking and finance: drastic shift to digital-first, mobile, and contactless payments due to physical bank closures; SME digitalization: while many SMEs are adopting, they face barriers like, lack of e-government services and high cross-border logistical costs; remote Work and e-commerce: increasing adoption accelerated by the economic crisis. It is important to ensure funding for digital initiatives, and for this, create a regulatory framework, justify the criteria for selecting projects for financing, and develop a financing mechanism with an offer of more favorable conditions.

The Office of the Minister of State for Administrative Reform (OM-SAR) is driving initiatives like a Digital Transformation Strategy (2020-2030), aiming to digitize public services and create a unified national portal [3]. In Lebanon, many issues in this regard have already been worked out. But due to the protracted crisis, there is no opportunity to develop a digital economy. In the Republic of Belarus, there are economic opportunities, the state is more interested in developing digital economy, and private business is at the stage of implementation business models.

LITERATURE

1. Lebanon Country Commercial Guide URL: <https://www.trade.gov/country-commercial-guides/lebanon-digital-economy> (date of access 10.02.26)

2. Information technology and knowledge economy URL: <https://www.lebarmy.gov.lb/en/content/information-technology-and-knowledge-economy> (date of access 10.02.26)

3. Top Software Companies in Lebanon: Leading Innovators Driving Digital Transformation URL: <https://tkxel.com/blog/software-companies-in-lebanon/#:~:text=Lebanon%20is%20fast%20emerging%20as,to%20clients%20around%20the%20world> (date of access 10.02.26).