

Summer report

DIGITAL

ECOSYSTEM DIGEST

2023

DIGITIZATION TRENDS

AND STARTUP ECOSYSTEM IN GEORGIA



INTRODUCTION

The process of digitization in the world has been going on for several decades. In Georgia, within local business, this process has been especially accelerated in the last few years.

Currently, as artificial intelligence and other opportunities of the Fourth Industrial Revolution advance, it becomes even more urgent to complete the basic directions of digitization in time so that businesses can enjoy all the positive results of the new industrial revolution.

Business digitization itself includes the digitization of various processes, including: customer relationship management (CRM), audit and financial processes, supply chain and inventory management, project management, sales and marketing, data analysis. When digitizing these processes, in many cases, the challenges are different for traditional large and small startups.

Process	Challenges for traditional, big business	Challenges for small startups
Customer Relationship Management (CRM)	Complexity of implementing systems for different segments Dependence on traditional approaches	Shortage of technical skills Limited customer information
Audit and financial processes	Complexity of transition to digital system Problems of international transactions	Dealing with regulations Less experience in implementing the financial system
Supply chain and inventory management	Digitization of the supply chain with respect to international partners	Challenges of managing stocks digitally
Project management	The problem of collaboration between intra-organizational groups	Choosing the right tools
Sales and marketing	Moving successful methods of traditional marketing into the digital world	Lack of digital marketing experience
Data analysis	Large volume data sorting Failure to use data analysis in decision-making	Data scarcity for analysis

The target audience of the presented report is wide and may include any person interested in digitization of business activities. In particular, the report will address the following main issues:

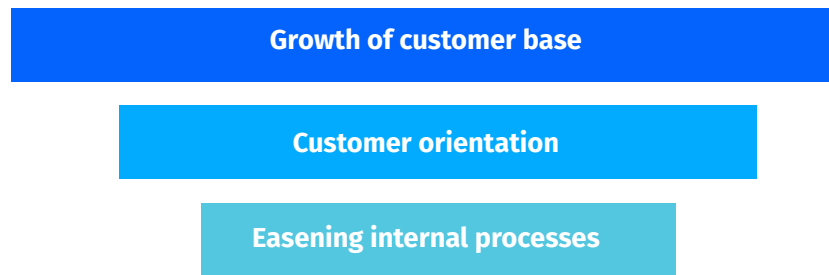
- **Initial results of digital transformation of local startup activities and impact of digital literacy of society on Business Processes;**
- **Overview of digital and technological knowledge and skills deficient in the local labor market;**
- **Latest trends from the startup ecosystem to various digital destinations (customer relationship management, big data processing, customer satisfaction measurement).**

The results are based on both general statistics and a qualitative survey conducted by BTU in July 2023, in which local, including technologically oriented startups took part.

Digital ecosystem digest will return to the topic of strikers in the future and review the impact of artificial intelligence on the implementation and use of digital technologies.

DIGITAL TRANSFORMATION PROCESS IN A BROAD CONTEXT

What did digital transformation bring to local startups - 3 main results



Digitization of activities has brought various successful results for local startups and small companies, including both in terms of improving customer relations and in relation to the company's internal processes.

One of the main advantages of digitization, according to startups, is reaching to new segments of customers. These are the segments of customers that could not be connected when delivering a product/service through traditional channels. Also, a notable advantage is increased customer-centric capabilities. In particular, the accumulated and growing digital information about customers has enabled companies to create products/services directly tailored to their customer's tastes/needs.

In addition, digitization of activities increases the efficiency of internal processes, which reflects the simplification of many internal processes, as well as, in general, the transparency of the company's activities from the customer's perspective.

What "community digitization" brought to local startups - 3 main results



The increase in the use of digital technologies by the public in Georgia has brought a number of consequences for local companies. First, most importantly, trust in digital products has increased, and digital processes as a whole have become more reliable. And this simplifies and accelerates the growth of market volume.

In addition, the level of technological knowledge of the user is increased. The demand for new products is growing directly proportional to the development of digital skills. Also, the increase in the number of users leads to the accumulation of information about the market and simplifies its analysis.

On the other hand, challenges have increased along with digital transformation, including increased prices for advertising for the target segment in the digital world.

DIGITAL SKILLS IN THE LABOR MARKET

What type of deficient digital/technological knowledge is required by local startups in the labor market - 3 main directions

Artificial intelligence (various AI tools)

Digital marketing (including Meta Ads, TikTok Ads)

Data visualization (including Power Bi)

In the labor market, for technological startups, the most demanded and deficient knowledge from future staff is clearly related to the use of artificial intelligence. On the one hand, this implies the demand for AI specialists for the development of various internal tools; and on the other hand - the demand for persons who can use the AI tools available on the market in their professional activities and with its help the company can achieve success in sales, marketing or product creation.

The need to use artificial intelligence varies greatly depending on the profile and direction of activity of companies. ChatGPT, Bard AI and other tools are already used by startups in such activities as: writing/editing and information retrieval; also, in the direction of digital marketing, both in the SEO and visual part. However, there is a demand for a more narrow-profile AI tool.

Another demanded technical knowledge concerns digital marketing, especially in the direction of advertising management. In this regard, in addition to Meta and TikTok, google ads and LinkedIn ads are named as active destinations by startups. Another deficient skill in the labor market is the data visualization skill, in which Power BI stands out, however, there is also an interest in other data visualization or processing tools that offer interesting information for companies of a specific profile (such as Google Analytics).

What types of general skills are expected by local startups from future employees - 3 main directions

Quick acquisition of technological novation

General analytical skills

Creativity

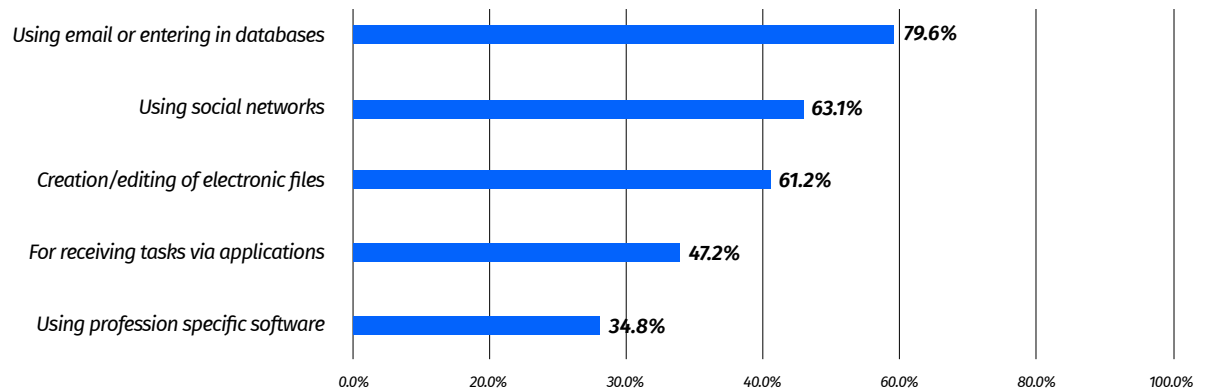
The main general skill required by the future employee is the ability to quickly master technological innovations and new products. In modern reality, we see new tools appearing on the market (e.g. in the AI sector), therefore, knowledge of only one software product is often no longer enough, so much attention is paid to the ability of the employee to use different tools simultaneously (flexibility) in order to save the time spent on work as much as possible.

Obviously, general analytical skills remain a challenge in the local labor market. There are often cases when employees have basic technical knowledge, but cannot use it in accordance with their goals.

Creativity is one of the skills of the future, which, among others are expected by local companies from future employees. It is logical that in a world where a large part of technical work is automated, human creative skills should be given a greater role.

DIGITAL SKILLS IN THE LABOR MARKET

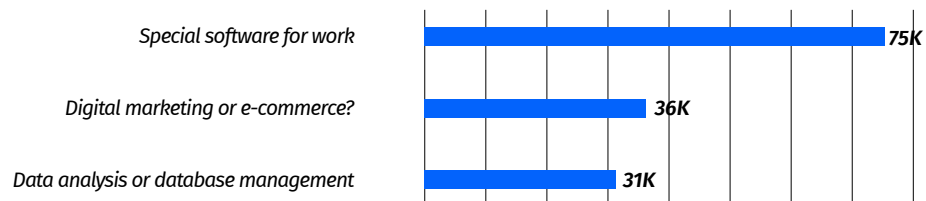
What types of computer activities* were conducted by employees in Georgia in 2022?



* The percentage is calculated against the total amount of employees who use computer technologies for official purposes. The answers of the respondents relate to the period of the last 12 months.

After reviewing the startup ecosystem, consider the broad statistics of digital skills at the country level as well. In 2022, a total of about 517 thousand people used computer technologies during their official duties in Georgia. In the process of using computer tools, obviously, we often find examples of their use in such basic directions as e-mail and use of social networks for official purposes. Of the total number of employees who use computer technology, half of them use their applications to receive instructions and tasks, and a third to use specific professional programs.

What type of trainings *Georgian population (thousand people) was undergoing to improve digital skills, 2022

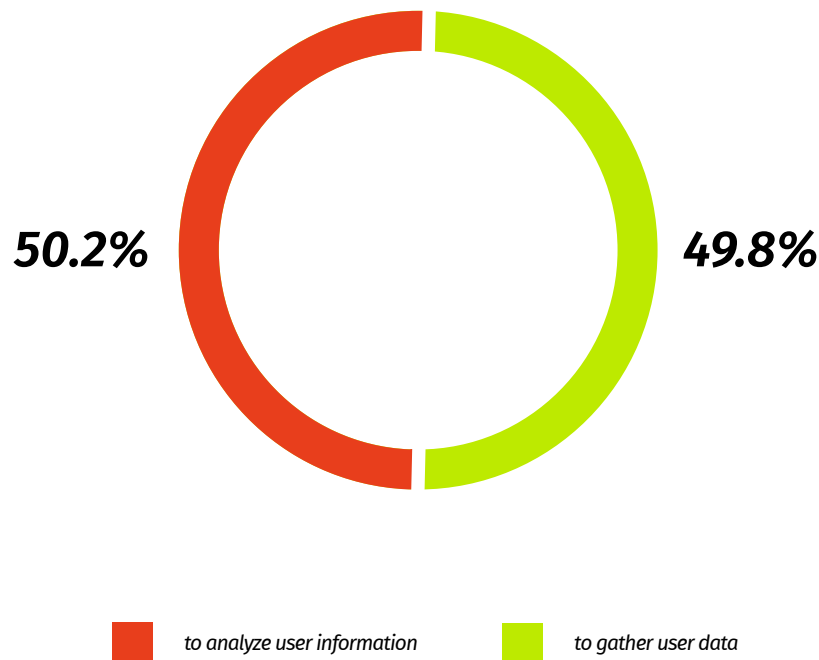


* Among others it includes online training/self-study. The answers of the respondents relate to the period of the last 12 months.

As of 2022, in the last 12 months, a total of 150 thousand people had undergone some training in the development of digital skills, in the main case it was free online training/self-study or training provided by the employer. As for the topic of teaching, mostly, these were specific programs that people use at work. Also, interest in digital marketing, e-commerce, and data analysis is distinguishable. There were relatively few examples of advanced training in social media management, learning programming languages, or any other direction.

CRM (CUSTOMER RELATIONSHIP MANAGEMENT)

Goals of using CRM in local businesses



According to 2023 statistics, the goals of using CRM in local businesses are to collect data in half of cases and analyze information in the second half. The trend is similar in both small and medium and large businesses. Overall, 3.7% of local enterprises with internet connections used the CRM system, the same figure for small businesses is 3.3%.

Statista estimates that in 2022, approximately 9.7 million GEL was paid for CRM programs in Georgia, and by the following 2023, the 15.6% market growth is expected.

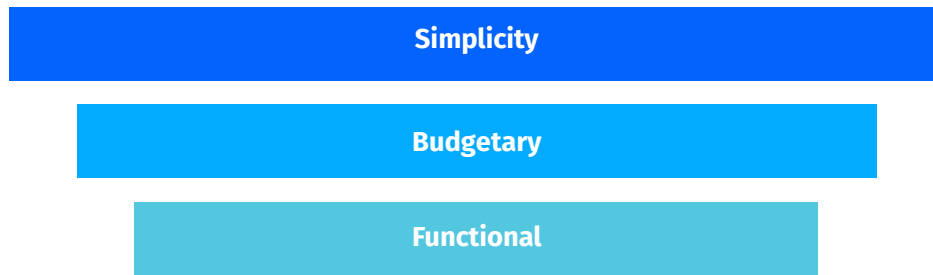
CRM software market in Georgia*

Amount paid for CRM programs in 2022	Expected market growth in 2023
\$9.7M	+15.6%

Statista estimates include costs incurred on sales, marketing, contact center and customer service applications. Does not include CRM analytics.

CRM (CUSTOMER RELATIONSHIP MANAGEMENT)

According to what do local startups choose the CRM System - 3 main criteria



It should be noted that local startups use different approaches in dealing with customers. In particular, some of them use their own CRM system, and some of them use proven CRM tools. And, for a number of startups, there is no need to use the CRM system in the classical sense and it is being replaced by different methods. Startups have named the following tools, including: Bitrix24, Notion, Freedcamp, Pipedrive, Customer.io, Mailchimp.

The main criterion for selecting a CRM system is its simplicity (how flexible and user-friendly the tool is) and budget.

BIG DATA

What tools are used by local startups to process big data?

Big Data Processing	<i>PowerBI</i>	<i>Mongo DB</i>	
Big data on user behavior on the internet	<i>Google Analytics</i>	<i>Meta Ads Manager</i>	<i>Hotjar</i>

Local startups use big data both to study consumer behavior and to observe their characteristics. In this regard, the most relevant at this stage are the methods of observing user behavior on the internet. Accordingly, tools that analyze user behavior on websites or social networks are quite actively used by startups. In addition to the tools indicated in the table, they were also named by startups - Semrush, Mixpanel, Appsflyer. In general, for processing big data, startups in some cases use programs such as PowerBI and MongoDB. Also, for a number of companies, due to the limited need, MS Excel is also successfully used for solving tasks.

BIG DATA

For what purpose do local startups process big data?

For observing customer behavior in internet

For studying characteristics

Local startups process big data for a variety of purposes, including studying user behavior on the internet. Startups whose product/service sales are directly linked to online customers are of particular interest in this regard. They use online analytics (e.g. Google Analytics) to monitor user behavior coming into their website.

Also, obviously, in some cases, the existing big data is processed through various programs to study user characteristics and customize products to them.

In total, in 2022, only US \$ 3.3 million was spent on Business Analytics programs in Georgia, which is quite low even for the small Georgian market.

Business analytics software* market in Georgia

<i>Money paid for business analytics programs in 2022</i>	<i>Expected market growth in 2023</i>
\$9.7M	+15.6%

Statista estimates do not include artificial intelligence tools.

MEASURING CUSTOMER SATISFACTION

What methods do local startups use to measure consumer satisfaction - 3 main approaches



It should be noted that there are often no unique approaches or specific tools used by the majority of market players to measure customer satisfaction in the local market of startups.

In most cases, startups use traditional approaches and tools tailored directly to their field of activity (including CRM systems) to study customer satisfaction.

The advantage of traditional methods (such as a call or direct contact with a customer) is also determined by the fact that in the local digital world, user behavior is still in the initial stages of development. Therefore, it is often difficult to obtain reliable and complete information only from digital channels, such as online reviews, completed online questionnaires, etc.

On the other hand, along with the growth of digital markets, the amount of information that reflects the customer's opinion about the product and service is increasing. This obviously raises the need for standardization of certain methods of measuring customer satisfaction, as well as automation of a large part of them.

SUMMARY

Digitization of business is a very complex process, which can be viewed from many different angles. The introduction of digital innovations in local businesses is actively underway, but with a number of challenges.

From the information presented in the report, it is clear that the entire Georgian market does not/cannot spend large amounts of financial resources in terms of improving business digital analytics or Customer Relationship Management. If we directly specify startups, we can find successful examples of the introduction of digitization tools in this direction, however, with limited opportunities.

In relation to startups (and not only), methods for measuring customer satisfaction are quite interesting. It should be noted that often for various reasons traditional methods are still used in this regard. On the other hand, on the example of Georgia, the number of users in the digital world increases every year, which increases the volume of information presented in the digital world. This makes it possible to gradually introduce modern methods for quickly and accurately measuring customer satisfaction. For example, online questionnaires used by a number of companies can be given a more systematic and continuing character. It will also be effective to calculate indices such as Net Promoter Score (NPS) or Customer effort score (CES), etc, to assess customer satisfaction dynamics.

As noted in the introduction to the report, the dominance of artificial intelligence is completely changing the digital ecosystem globally. As a result, the problems that we are talking about now may no longer be so relevant after a year. Consequently, constant research and analysis around the digital ecosystem is needed, including by educational and research institutions, which is why the next editions of the digital ecosystem digest will surely return to the topics presented in the report through an updated prism.

WHAT IS DIGITAL ECOSYSTEM DIGEST?

Digital Ecosystem Digest is a quarterly electronic research report issued by the BTU Centers for entrepreneurship and research initiative.

The report reviews current technological and innovative trends in various sectors of the digital economy of Georgia and covers topics such as: startups in digital business, e-commerce markets, digital platforms (B2B, B2C or C2C), Fintech technologies, etc.

The purpose of the report is both to consolidate existing information and to generate new practical knowledge about the digital economy. Periodically, various researchers will be co-authors of the research report.

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