



RESEARCH

# Software Testing & QA:

Providers' Insights and Market Forecasts, 2020



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## Introduction

COVID-19 pandemic has changed the whole world, and the economic downturn is among the most long-lasting "scarring" effects. While all this may down lots of industries and take years to recover, what is the fate of software development and testing services in the near and distant future? Fortunately, new circumstances give us new opportunities.

This whitepaper reflects a recent survey conducted by QATestLab among software testing companies, and provides real figures defining the current world of technology. Right now, IT-sphere stands on the verge of a technical leapfrog: more projects demand the work of both software developers and QA engineers. All it means is that living in a post-COVID-19 realities, digital transformation is our everything.

Why should IT companies devote the most exceptional attention to the statistics? What we have today defines our future. To prevent ourselves from screwing up and losing in high competition, software and QA providers, and people who just require services have to be well-oriented in what is happening now. For this reason, we performed this survey to help you better understand this field.

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## 1. Technology Now:

### How the COVID-19 Boosts Digitalization

The global economic crisis triggered by the spread of coronavirus disease has the world in its grip and transferred everyone to work from home. According to a survey presented by Slack, an estimated **16 million workers** started working remotely as of March 27 in the US; that number is likely much higher now. But while the lockdown restrictions are cutting output from all the businesses, IT and QA industry have a slightly different picture.

For software development and testing providers, remote working has always been something acceptable and familiar, that's why they don't cease operations at all. According to Condeco Software, **41% of IT employees** say they already offer some degree of remote working, while **60%** provide flextime opportunities to choose when to start and end their workday. Finally, Upwork's "Future Workforce Report" predicts that **73%** of all teams will have remote workers by 2028.

Apart from easy transferring to the remote working model, there is another good reason why IT-sphere will not remain severely affected after a crisis caused by the COVID-19 pandemic. Digital transformation posed an enormous challenge to all sectors (especially e-learning, finance, economics, healthcare).

Keeping up with new standards requires not only to react fast and create new solutions but also to test them and ensure the highest quality of software.

[Slack](#)

[Condeco Software](#)

[Upwork's "Future Workforce Report"](#)

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According to market research presented by Technavio, **the IT market will grow by USD 6.05 billion during 2020-2024**, progressing at a CAGR of over 15% during the forecast period. All this means one thing - the decline in consumer demand caused by COVID-19 can be compensated, at least in some areas, like the software industry, and QA area in particular.

## 2. Software Testing During and After the Lockdown: The Survey

QATestLab decided to go deeper and surveyed specifically the global providers of software testing and QA services, **68% of them were pure-play QA providers**. Our main goal was to understand better what factors determine the world of software testing now, and what will dominate tomorrow. More precisely, the questions interrogated tackle the operations changes, finance conditions, and market insights.

### 2.1. Operations

Among them, 75% states that the crisis affected their operations moderately, and 25% experienced a relatively minor impact. What's more interesting, **75% didn't stop working even during the lockdown**, and all the respondents are sure they won't close their offices after.

[Technavio](#)

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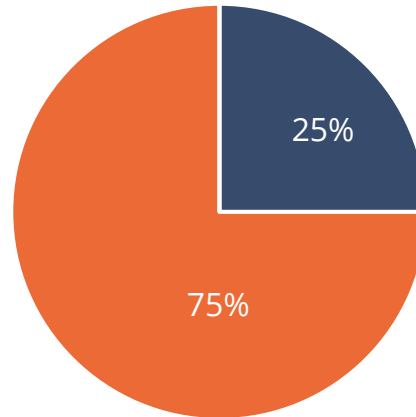
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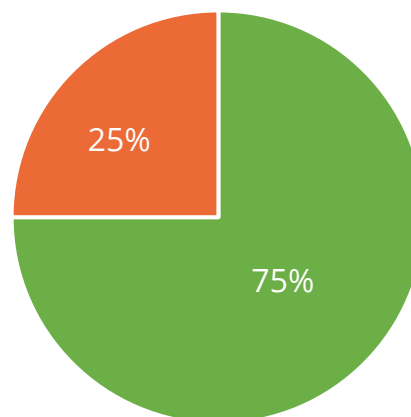
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## How have your company operations been affected by the pandemic?



- Not affected
- Slightly affected
- Moderately affected
- Strongly affected

## Did you have to pause your company operations?



- No
- Yes

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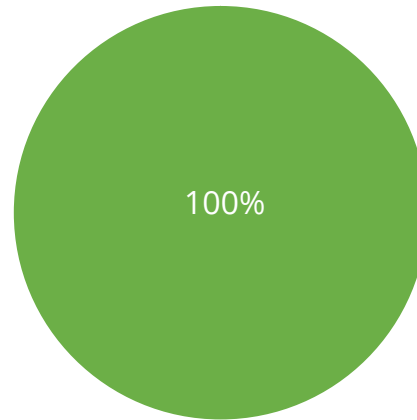
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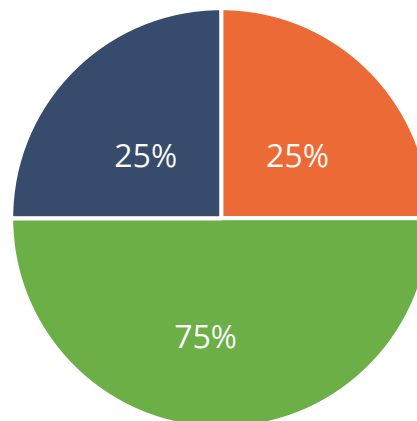
## Will your company have to pause operations?



- Yes, for 1 month or less
- Yes, for 3 months
- Yes, for 6 months
- No, company won't stop operating

Most of the problems with remote work were due to the lack of appropriate software for monitoring and supervising the operational processes, slightly fewer issues were connected with management (25%) and team engagement (20%).

## If your company is operating remotely, do you have any issues with such work mode?



- Problems with infrastructure, e.g Internet or servers load
- Issues with management of remote employees
- No process / procedures / methodologies for remote working mode
- Lack of software for monitoring and controlling
- Low communication level with employ
- Low team engagement in projects

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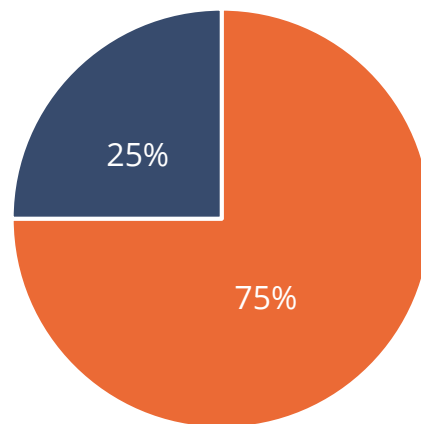
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## 2.2. Finance

The next thing we investigated was money matters. In terms of **finance**, the worst that happened was investment reduction for 75% of the respondents.

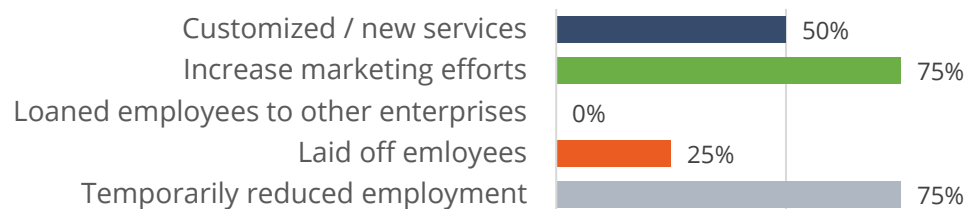
### Has the pandemic affected your enterprise in any of the following ways?



- Temporary shutdown
- Employee absences due to sickness or childcare
- Clients not paying their bills
- Increased administrative bottlenecks
- Reduced investment
- None of the above

Still, 100% of the respondents reported lower sales during the passed lockdown. In order to mitigate the turndown, the companies typically implemented the number of strategic decisions:

### Have you adopted any of the following strategies to cope with the crisis financially?



The companies that had to reduce employment, did it only for 10%.



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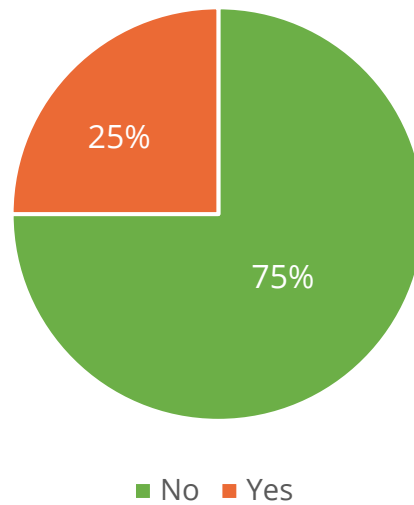
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## 2.3. Market

Only 25% of the respondents believe that the lockdown has influenced the market. Other are sure the market won't drop down:

### Have you felt a drop in market demand for testing?



**DeviQA (UK, USA)**

<https://www.deviqa.com/>

I do not think that software testing and QA as the industry was affected much. But the software testing companies could be affected. It mostly depends on the clients they worked with. E.g., if they were cooperating closely with the booking systems, betting platforms, or the aviation industry, the impact was significant."

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**TestArmy (Poland)**

<https://testarmy.com/en/>



Clients are trying, like in most industries, first to use current employees to do tasks usually delegated to outside consultants to save jobs. So faced with an uncertain economic future, they are reluctant to outsourcing QA.”



**QATestLab (Ukraine)**

<https://qatestlab.com/>



Everyone felt the necessity for changes. Offline business drastically reduced costs or was forced to find new resources to move online. The portrait of the client has changed. While earlier, it was difficult for online businesses to enter the market, now it is the mainstream, and the more new features you have, the more chances to stand out among competitors will be. And all this, of course, requires testing. Besides, business is actively developing related to +3 solutions, online servers, telecommunications, streaming, games, and more.”

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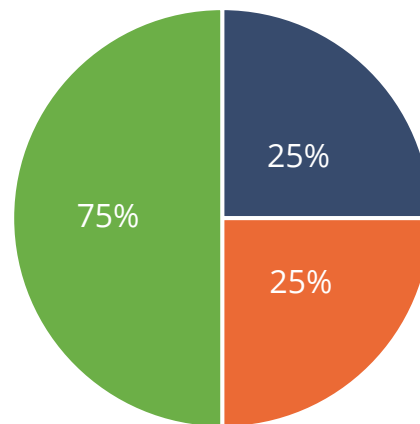
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Summing up the survey data, we uncovered the situation with the sale of manual and automated testing is undoubtedly changed. 50% of the companies interviewed don't mark any changes in the demand distribution. But some respondents consider test automation to gain more demand.

50% of software testing providers experience the demand in integrated specialists:

### Are clients now looking for integrated professionals, rather than highly specialized?



- Yes
- No
- I wouldn't say so. At least we didn't experience it

All the respondents pointed at the increasing need to apply the latest technology and more innovative approaches. At the same time, many companies are still struggling with how to achieve a similar level of digitalization as other competitors have.

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## DISCLAIMER

Given the pace of change, we recognize that some of the COVID-related facts in the whitepaper may become irrelevant soon, but these conclusions will be helpful to overcome the next crisis wave. We determined several lessons we can learn from these figures. The following are two forecasts in terms of short and long perspective.

## 3. Short-term forecasts for software testing

Present-day realities after lockdown force the sector of software testing to implement new strategies as soon as possible. It has become all but impossible to survive an economic downturn without making greater use of digital technologies. **Here are some of the points we can rely on:**

### ✔ Cost reduction and faster time-to-market solution.

IT changes and challenges that occurred after lockdown requires a fast reaction. To improve position on the market, companies have to think about budget optimization and focusing on the right vectors for growth.

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### ✔ **Analytics, modeling, insights.**

New insights amassed through data science algorithms can help businesses to understand their weak and strong sides. Implementation of solutions built on top of Artificial Intelligence contributes to increasing demand for the product from users.

### **Proper testing processes and infrastructure.**

Today, several testing types gradually picking up traction because of the opportunity to optimize budget and improve the product at the same time:

- 1) Ad hoc testing - allows focusing solely on the needed part of the product, and monitoring and building immunity/resilience instead.
- 2) Risk-based testing approach - testing of the riskiest points, crucial bottlenecks.
- 3) Automated testing - helps to execute test cases faster and so save time and budget.

All-in-all, for IT companies now, it is essential to focus more on the growth prospects in the fast-growing segments while carefully maintaining previous positions in the slow-growing sectors.



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## 4. Long-term forecasts for software testing

It is impossible to deliver a successful product without an understanding of what anticipates us in the foreseeable future. How will recovery from an economic downturn caused by the COVID-19 pandemic look like?

Providing our extensive research as the basis, we came to a conclusion there are two possible ways:

### ✓ **Optimistic.**

To make the most of the opportunities, market vendors should focus on strategies to optimize budget, implement new technologies, and take special care about the quality of the product.

### ✓ **Pessimistic.**

The market is fragmented, and the degree of fragmentation will accelerate during the forecast period. Those who will not put effort into digital transformation will lag behind major players on the market, or, in the worst case, will promptly lose their positions at all.

Pure Play Software Testing Services Market 2020-2024: Segmentation according to the Technavio report.

### ✓ **End-user**

- **BFSI (Banking, financial sector and insurance).** According to McKinsey, Banking leaders have already shown resilience in their moving to protect customers, ensure the continuity of banking services, and focus on strengthening their institutions.

[Technavio report](#)

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- **IT.**

IT sector is already in significant demand since more and more companies require developing new solutions, and especially those who lie under cloud infrastructure.

- **Telecom.**

Our forecasts anticipate increased demand for communications equipment and telecom services as more companies are transferring to remote work.

- **Retail.**

Retail is one of the sectors most affected by COVID-19, in both positive and negative ways. Europe and the United States are seeing changes in demand patterns, with retail sub-sectors experiencing different shifts and outcomes based on the longevity of the ongoing public health crisis.

- **Geography** (share in 2019 and forecasts for subsequent five years according to Technavio)

- **APAC.** Share in 2019 - 39,34%, largest market in 2024.
- **North America.** Share in 2019 - 24,12%, largest market in 2024.
- **South America.** Share in 2019 - 20,15%, best performing market between 2019 and 2024.
- **MEA.** Share in 2019 - 9,30%, slowest growth market between 2019 and 2014.
- **Europe.** Share in 2019 - 7,09%, slowest growth market between 2019 and 2014.

[Technavio](#)

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In conclusion to the whole survey done by QATestLab up, one can determine the primary condition for surviving in a post-COVID-19 world. Reimagining strategies and operations are what all software companies must focus on in current circumstances.

For this, we have to take into account the rise of digital transformation, and the increased demand for software development and testing products.



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