

Japan

The commitment to quality is instinctive in Japan. This continues to be a country that couldn't try any harder...

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In Japan, the commitment to quality is instinctive. In the World Quality Report, both this year and last year, we noted that much of the rest of the world is subsuming quality assurance (QA) into the mainstream of the software development lifecycle. That's not going to happen in Japan: the notion of quality is too important for it to lose its own identity.

Another point is worth making before we look closely at this year's response data. A major element of the survey this year relates to test automation. That word – automation – can be translated into Japanese in two ways. One way relates to straightforward mechanical automation, as in a robotic arm. In the other case, the term denotes not so much the process of automation as an automatic cutout – a form of emergency stop – in the event of failure. It's something that all Japanese organizations are keen to avoid.

Confidence – not overconfidence

The esteem in which quality is held in Japan is evident with respect to its testing and QA objectives. An enormous 93% of respondents said it was essential to ensure end-user satisfaction, while 83% said it was vital to protect corporate image and branding. General expectations of quality are indeed extremely high in Japan. For IT strategy overall, enhancing customer experience was once more ranked very highly. Other notable drivers included cost optimization, and faster time to market. Taken together, these three criteria constitute the standard QCT (quality-cost-time) tradeoff – but in Japan, the center of gravity will always shift towards quality.

Japanese respondents seem comfortable with the extent to which they achieve their application development targets. For instance, almost three-quarters (72%) of them said they

always cover everything that's needed, and exactly the same proportion said the development and test tools and methods they use are always sufficient and available. In addition, 80% of them said they always meet their quality goals.

In our view, all this signifies confidence, not overconfidence. This is not a market that is keen to try out new tools and approaches, but one that prefers to do its best with the means available.

The Japanese have an aversion to failure that is demonstrated by a remarkable statistic in this year's data. Around a tenth of global survey participants (12%) said they never go live before testing – but over two-thirds (68%) of Japanese respondents said the same thing.

This aversion increases Japanese determination to trust in technologies that have already proven themselves. And besides, these are people who know very well what needs to be done. Over three-quarters (76%) of them told us they always measure how much of their overall code they are testing – whereas the global survey average for this metric was only 53%.

A question of culture

Given this faith in the tried and trusted, it's easier to understand why the Japanese tend to swim against the tide as far as the adoption of agile and DevOps approaches is concerned. Last year, the average proportion of overall project or team effort used for testing in agile environments stood at 29%. This year, that figure stands at just 18%. No other region or country in this year's survey has dropped against this metric to anything like the same degree.

We suspect that agile simply doesn't resonate with Japanese culture. Instinctively, the country seems in our view to be closer to waterfall in its mindset: it would rather improve its implementations in this established discipline than make a switch to a new one.

This is perhaps why so many (57%) Japanese respondents said they lack a good testing approach that fits with the agile method. It's probably also why a higher-than-average 43% of them said they have difficulties with estimating their test effort in agile initiatives.

A distinct discipline

At the start of this article, we noted not just the ubiquity of quality in Japanese business, but also the importance it has a discipline in its own right. We don't see it blending seamlessly into the rest of the development cycle anytime soon.

That observation is interestingly corroborated by the survey data this year. There is a relentless focus on increasing the quality of software development: almost two-thirds (62%) of Japanese respondents said it was essential in making testing more efficient, against a survey-wide average of just 40%. This task may be everyone's responsibility, but Japanese businesses still have designated and independent quality teams, who are held in high regard. Every single one of the country's survey respondents told us their organizations have an independent validation team that checks quality before go-live at least 70% of the time. Over a quarter (28%) of them went further, and said these teams were in action 100% of the time. Compare this to the global figure, where only 3% of respondents made the same 100% claim.

Artificial intelligence and automation

In fact, Japan was the only country or region to provide 100% responses to survey propositions this year. We see another example of this in relation to the use of artificial intelligence (AI) and machine learning in testing. Every Japanese respondent said that automated root cause analysis was

relevant for their organization. We see this in the field: when quality is paramount, it stands to reason that smart tools of this kind will be brought into play. That second Japanese word for automation is key here: no one wants anything to trigger a stop. Failures aren't acceptable.

For the same reason, it's no surprise to see every Japanese survey participant stating that they always have the right automation strategy. Once again, this is automation in the sense of avoidance of disruption. It's a discipline that reinforces the authority of the quality teams, which is why we also see 94% of Japanese respondents saying that one of its prime benefits is that it gives them better control and transparency of their test activities.

Resolute focus

This need for control is also evident in Japanese assessments of what quality assurance will need in a post-COVID world. A very high proportion of the country's respondents said they will need to improve the productivity monitoring of their teams. In fact, this need was significant for 89% of them, against less than half that (44%) for our survey respondents as a whole. It's vital for Japanese organizations that their quality teams are kept at the top of their game.

There were many questions that were put to people in this year's report, but for Japan, perhaps one of the most interesting and revealing was the last one. What changes to QA and testing did they envisage as a result of COVID-19? In most countries and regions, substantial majorities emphatically agreed they would need a stronger QA community culture; that they would need to improve their team collaboration tools; and that they would need to measure the quality of work of their teams differently.

The figures for Japan were markedly lower. Why? Because this is a country that couldn't possibly hold quality in higher regard. There simply isn't any room to try harder.



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