WORLD QUALITY REPORT

2017-18 | NINTH EDITION

Middle East

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IMPORTANT TRENDS

- IT today, is no longer seen only through the prism of cost optimization but is increasingly expected to contribute to a number of business objectives as well.
- The increasing adoption of agile and DevOps, use of automation in testing and growth in omni-channel testing are some of the bigger trends in QA and Testing in the Middle East.
- The three most popular models for setting up of testing operations in the Middle East are 'TCOE factory in an offshore location with high cost savings', 'a managed service model with an expert QA vendor' and 'de-centralized TCOE for improved agility and efficiency'.

Despite the fall in oil prices and the impact this has had on the regional economy, IT spending in the Middle East has been growing. One part of this increase can be explained by a number of large transformational IT projects which are a part of the attempts being made by the Gulf Co-operation Council (GCC) countries to diversify their economies and reduce their dependence on oil. Another part can be explained by the digital transformation initiatives that have been started by private organizations across the region as they try to catch up with their counterparts in the west. Today, the biggest trends in the region relate to the adoption of agile and DevOps, a growing interest in automation and the impact of Digital Transformation which is being felt in every sector.

It is, however, the shift in mindset with regard to the role of IT, which is having the biggest impact on QA and Testing trends in the region. IT today, is no longer seen only through the prism of cost optimization but is expected to contribute to a number of business objectives. According to our survey, when asked to rank different aspects of their IT strategy, respondents in the Middle East gave the highest weighting to 'cost optimization of IT', followed by 'increased output (implementing more requirements from business' and 'higher responsiveness to business demands'. Similarly, when asked about the objectives of their QA and Testing strategy, they gave the highest weighting to 'increase the quality of software or product', 'ensure end-user satisfaction' and 'detect software defects before go-live'. In addition, expert opinion holds that time-to-market has become the most important objective for many organizations and is actively driving most of the trends we see in QA and Testing.

One of the biggest trends that this is driving is the increasing adoption of agile and DevOps. Currently, agile methodologies are mostly being used for front-end applications, as a majority of companies are still in an experimental phase with these methods and techniques. According to our survey, the most popular agile methodologies were hybrid models (a combination of agile and waterfall), the Scaled Agile Framework (SAFE) and Scrum. Anecdotal evidence, on the other hand, points to the dominance of Scrum in the region.

As with any new trend, there are also significant challenges. According to respondents, 'lack of appropriate test environment and data', 'difficulties in re-using and repeating tests across sprints/iterations' and 'inability to apply test automation at appropriate levels' were the three most common challenges in applying testing to agile environments. At a deeper level, these challenges suggest an underlying lack of the required skills in the market.

Similar trends can also be seen when it comes to the adoption of DevOps in the region. The increasing adoption of cloud and

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virtualization technologies has allowed for faster and more cost-effective ways of setting up environments. This also shows up in our survey. When asked about which DevOps methodologies they used, respondents gave the highest weighting to 'we use more cloud based test environments', followed by 'break down large efforts into smaller batches of work' and 'use continuous testing and continuous integration techniques'.

The increased adoption of cloud that makes this possible is a new trend. Historically, there have always been concerns with regard to data privacy and security as well as strict regulatory constraints that held back cloud adoption. Today however, with the availability of cloud services based in the region, as well as a certain loosening of regulations, there is an increasing move towards the usage of private and in-premise cloud. Over the next few years, one can expect a growth in the usage of hybrid cloud models.

Another major trend is related to digitalization and the consequent need for omni-channel testing. This is a rapidly evolving market in which time is the driving force. Where earlier, it could take as much as 6 months or even a year to see new products, features and services; apps today are updated as frequently as a few times a week. Consumers are used to new features, models and updates on a regular basis and organizations cannot meet these expectations without a fast, agile testing framework built using the appropriate tools and methodologies.

No surprise then, that omni-channel testing is quite the buzzword in the Middle East today. When asked about where they focused their efforts when testing mobile applications (including devices and wearables), respondents gave the highest weighting to 'user interface/ease of use', 'certification of application' and 'portability (ability to execute the same binaries on different devices powered by the same technology)'. While most organizations have launched digital transformation projects, they also face significant challenges when it comes to the associated testing required. According to our survey, the biggest challenges in testing mobile and multi-channel applications in the Middle East are 'not having the right testing process/method', 'not having the devices (including wearables) readily available' and 'not having an in-house testing environment'.

Another major trend throughout the region is automation. This is driven not just by the need for cost reduction but also by considerations of quality and time-to-market. In terms of QA and Testing, the most popular automation practices were generating and executing functional test cases, as well as executing performance test cases using automation tools. At the same time, respondents also pointed to concerns with test data and environment availability, difficulties in automating due to multiple development cycles, as well as issues with service virtualization as significant challenges to test automation.

All the above trends are also having an impact on the organization of testing activities in the region. There is a trend towards setting up of centralized TCOEs and also a preference for outsourcing this activity for cost optimization. According to our survey, the three most popular models for setting up of testing operations in the Middle East were 'TCOE factory in an offshore location with high cost savings', 'a managed service model with an expert QA vendor' and 'de-centralized TCOE for improved agility and efficiency'. As with the rest of the world, in the future we are likely to see a move towards hybrid and agile TCOEs.

To sum up, the Middle East has always been slightly behind the curve in terms of the QA and Testing function. However, things are changing. The biggest change is the change in mindset and the perception that IT can and should be driving business goals. This is leading to the increased adoption of agile and DevOps, use of automation and a re-structuring of testing activities. These trends are only likely to get stronger over the coming years as the Middle East catches up with the rest of the world in terms of the maturity of its QA and Testing practices.

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Contact Micro Focus

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