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Transformational managed services

The whole is greater than the sum of its parts

Some organisations put up with poor quality, delay and higher development costs as a part of their IT programme delivery. As many don't measure success criteria against business outcomes they can't assess what they are, or are not, achieving. Capita believes that achieving desired business outcomes is fundamental so our managed service quality framework is measured and rewarded against the delivery of tangible results. This paper considers the benefits of taking an integrated, transformational approach to quality assurance.

How critical is QA?

Research conducted by IDC and sponsored by Capita indicates that while 87% of respondents consider IT QA critical or very important in ensuring business objectives are met, only 24% are fully satisfied they received sufficient warning of potential quality issues. Likewise, 32% of those surveyed do not measure the effectiveness of QA - the 68% that do measure effectiveness show a significantly higher proportion of satisfaction from the business.

So why do organisations put up with this situation?

It is probably because while two thirds of organisations claim to undertake quality control at each stage of the development lifecycle, they still do not appreciate the power of a transformed QA approach.

Too many are responding to business as usual pressures. They see the testing function as resistant to change and use it in a crisis management scenario rather than as a proactive early warning mechanism. Commercially, what is the incentive for functions following a cost recovery model to adopt more efficient and effective approaches? Can you really measure the value of the testing function in a simplistic fashion such as the cost per resource?

We believe that organisations should seek to deploy the commercial structure which will naturally drive through positive change for the testing function and benefit the business as a whole.

Benefits of robust quality assurance

Making sure that systems are reliable and managing risk is usually top of the list. Improved systems quality can be difficult to quantify as the negative impacts are generally more visible when things go wrong. Reduced quality leads to poor staff productivity, poor customer experience and ultimately poor reputation. However by understanding their risk profile and monitoring risk against desired outcomes, an organisation can optimise the amount of testing undertaken and minimise the chances of poor quality deliverables.

In the current climate, **cost reduction** is often a given but it doesn't need to be purely cutting back, it can also be getting more for less by undertaking testing in a different way such as through offshoring, judicious use of test automation or simply re-examining the way testing is undertaken so it can be more efficiently executed.

Timeliness is another key impact of good quality assurance. By reducing the amount of defects or fixing them early, crucial development time is saved which enables the organisation to meet critical deadlines.

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Regulation will often mean that deadlines are fixed and non-negotiable. Equally, in challenging economic times, it is organisations with strong management and competent infrastructures that will bring new products to market before their competition. The quality assurance and testing operation can clearly be optimised to support the business and IT functions in delivering value in this respect.

Transforming the culture to maximise return on investment

Testing should be proactive rather than reactive, however for many organisations, dealing with day to day issues takes priority and they do not take time out to see that there are better ways of working. The current shape and style of the QA and testing function and how it operates with the rest of the business are often not optimised even though the benefits outlined above are achievable if the right approach is taken.

For instance, the skill-sets and personality styles within a QA and testing function do not always reflect what is needed in a new world scenario. The majority of testing has traditionally been performed later in the lifecycle and is often used to 'fix a problem' rather than early in the lifecycle when it is used to 'prevent a problem'.

This balance changes in an optimised situation when business analysts and testers with domain knowledge help to refine requirements so they reflect what the business really requires. By investing in getting requirements right, quality is 'built in' from the beginning and conversely fewer fixes are required later in the lifecycle and overall costs including support costs are reduced. See Figure 1.

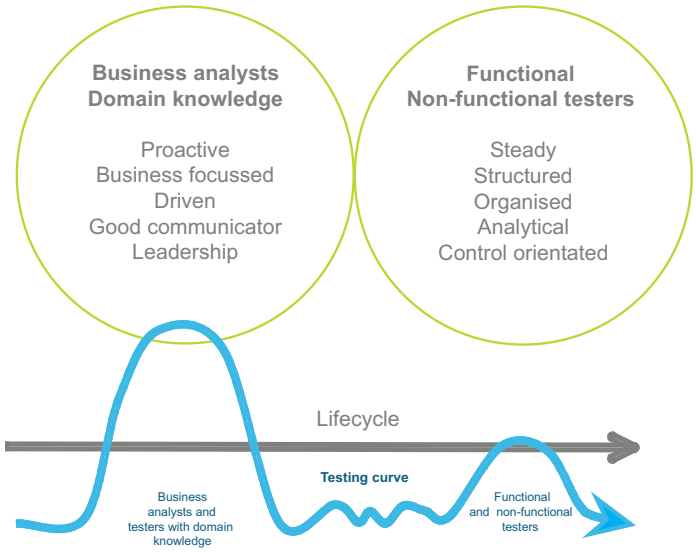

Figure 1

The QA specialists required to work at requirements stage and as test managers should be able to communicate well with users, business analysts, developers and testers as well as the programme office. It should be remembered that all of these functions could have a slightly different perspective on goals and potential issues so there are particular qualities that are required to achieve successful outcomes.

These skills include: industry domain knowledge; understanding the business processes as well as technology; being able to challenge where necessary and put forward risk-based options. These skills differ from those that are traditionally required to deliver testing approaches later in the lifecycle which involve very structured detailed and repeatable tests and these testers will generally need different attributes.

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To achieve the benefits of a transformed approach, the elements need to be integrated and the organisational structure has to be reviewed to make sure it reflects the new operational processes.

- What types of skills are needed and when?
- Can some of the work be successfully carried out offshore at reduced cost without losing control?
- Is it possible to automate some of the testing – if so which parts and how will this impact on your test teams?
- How do you cope with peaks and troughs in demand?

Steps to transformation

In Capita's experience, changes to a number of core fundamentals within the QA and testing processes will combine to achieve a multiplier effect on the outcomes achieved. Together, these can deliver very powerful benefits for the business as a whole which can be demonstrated by measuring and reporting against clear objectives.

Start early

The earlier quality assurance is included in the development lifecycle the more positive impact it will have. If business analysts and QA specialists are employed at requirements stage the organisation has the best chance of getting what it really needs from new or upgraded systems because functionality is properly specified with key stakeholders across the business.

By clearly integrating the approaches of the business analysts and QA people at the beginning of the lifecycle it is possible to reduce timescales and ensure that outcomes are properly linked to business and technical requirements. This will also ultimately have the knock-on impact of reducing development and support costs further down the line and shortening the delivery lifecycle.

End-to-end test management

Test management throughout the programme will optimise results and accountability for successful test outcomes. This will include stakeholder management within the programme office, IT, the business and with associated functions such as business analysts and programme managers to ensure alignment.

A risk-based approach

It is also essential to undertake a risk-based approach to testing throughout. Making sure that test coverage is directed at the areas of most risk means that testing effort is optimised and you know when to stop testing. In our experience it is possible to reduce your testing effort by as much as 33% while achieving the same coverage of risk if you know where to direct your testing.

Integrated testing on and offshore

Too often organisations that undertake some of their testing offshore do not integrate the people or processes with those onshore. This results in a disconnection in which errors occur. We believe that it is often possible to undertake around 80% of testing offshore with considerable savings. But this is only possible if it is clear which roles and responsibilities lie onshore and which lie offshore and there is excellent communications and strong interconnecting processes between the two.

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Automation

Automating testing can improve quality as well as reduce cost. As part of any review of the overall testing approach it is essential to make sure that coverage is reviewed and risk analysis is undertaken to ensure the right tests are automated.

Quality gates

Make sure your third party developers are properly aligned with you and directed by you, backed by appropriate commercials. Provide them with clear requirements and make sure they have the ability to measure outputs against these. By applying regular, planned, quality gates for releases enables you to manage environments and ensure that the systems function and integrate as expected.

Control, prevention and optimisation

QA and testing is coming of an age where it is not just about control but also about prevention and even optimisation. By taking a holistic and strategic approach to quality assurance, the IT function is clearly enabled to get closer to meeting the needs of the business. Those organisations that review their testing function and adopt new ways of working will ensure they place themselves in the strongest competitive position to meet the business challenges ahead.

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