IT QUALITY INDEX®

IT QUALITY INDEX Answering the question 'How Good Is Your IT'

IT Quality Assessment Framework

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Colophon

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Reviewers

Barclay Rae, Great Britain: "The IT Quality Index model looks comprehensive in its' coverage of a cross-section of IT activities. As such it provides an excellent 'balanced scorecard' to benchmark and assess the performance of the IT organisation across a number of areas – beyond technical and process. The focus is very much centred around outcomes, with a clear link to understanding the origin and reasons for these. This is a very useful toolkit for IT organisations and their leaders. The assessment process is also thorough and should help to build up a good means of ongoing measurement and service improvement for enterprise IT departments."

Harold Petersen, Australia: "The IT Quality Index is refreshingly 'simple' in terms of its holistic domain model, its approach and presentation of outcomes. The presentation of outcomes make sense on executive level and really seek to answer executive business questions about the general state of IT in their organisation and what can be improved to better enable the business. At the same time the IT Quality Index is built upon a comprehensive IT Operating Model, leveraging globally accepted frameworks for enterprise IT Management and Governance. This enables diving deeper upon analysing and questioning aspects of the executive outcomes of an IT Quality Index assessment. If the right stakeholders participate in an assessment, the IT Quality Index will provide transparency, the ability to understand where we are now at a glance and drive prioritised improvements in a pragmatic fashion."

Luis Alonso, Mexico: "IT Quality Index is the perfect way to reflect the overall IT Quality into a business context. It will allow your company to identify the bad practices that affect the correct performance of the IT department. This framework provides you the platform for a complete assessment in a 360 degree view around your organisation. It will give an easily understandable view of the current state of the IT department and will let you compare your quality level with other IT departments in similar organizations. IT Quality Index will help IT Managers understand where they are and what is the next step to improve IT Services. In my opinion, it could be considered a must read for every IT Manager."

Paul Wilkinson, Netherlands: "A solid, well-constructed approach driven by customer organizations asking the question. 'How good is my IT'? Why a new quality approach? There are many frameworks and assessments already in the market? The book gives a good argument for the strengths and weaknesses of existing approaches. I like the fact that it doesn't focus on 'best practices' but also looks at 'bad practices' and more importantly 'Right practices'. Another plus for me is that the approach doesn't just focus on a 'maturity level' of a process or practice but also has a chapter on 'Value of improvement' which is a current weakness in the ITSM landscape – the difference

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between improvement for the sake of improvement, and improvement aimed at delivering business value, which is something the business is demanding more and more as IT becomes a critical enabler for the latest industry trend of 'digital Transformation'. The book not only gives the areas and processes to be assessed but also set of guiding principles, roles and tips for using the approach which is backed up by training and accreditation."

Luis Garcia Menendez, Luxembourg: "The IT Quality Index provides a framework to assess the quality of an IT organization. How can you improve the services you are providing? Only if you can measure them. Using this framework you can set up a baseline on how your IT organization is performing. From there you can define the right actions for improvement and control their success by measuring them over time allowing you to see the improvement. Being able to show in a tangible way the improvement of a service allows to remove the perception which often shows more emotional and less factual view of an IT organization.

The IT Quality Index takes into account in a structured way all the different components which are important to define the performance of an IT organization in a customer centric way. Service must show value to a customer and this value could be different from customer to customer. This framework covers this due to its customer centric approach. The most important KPI's in order to agree the correct SLA's are not the commonly generic ones often used but the ones which are important for the customer. This is way a customer centric approach is so important and this framework covers it. It is not replacing best practices but allowing you to measure in order to see the evolution of the improvements put in place."

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Imagine yourself in wine store, standing amongst many shelves displaying all kinds of wines, from exclusive and quite expensive bottles to brands you have never heard of. You're preparing a dinner and want to buy a good selection to host friends travelling through your city. As your preference is for a certain type of wine you focus on a smaller area containing these wines to eliminate the majority of possible options. You look at the first bottle, a wine you know well and have drunk several times and enjoyed. The second bottle you select you have never tried, yet you look at the detailed chemical analysis, such as the sugar volume and acid level, so you know this might also be an option. The third bottle grasps your attention as it has a gold label – this wine won a competition organised by a well-established society and there are comments from experts regarding the wine's great taste, high quality, etc.

So which bottle do you choose?

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1 Foreword - Motivations

Over a long period of time we were receiving demand from different customers and stakeholders requesting our help with analysing actual levels of IT management practices in their companies and to provide an external, objective look at IT, compare it with other organisations and develop a management summary of our overall findings. While this seems like a straight forward request and is covered by many consulting service providers, we struggled to develop answers to some very simple questions which are crucial to the different management levels from CEO level to IT professionals delivering operational support to the end user.

Key questions we were requested to answer:

- How good is our IT?
- How is the quality of our IT evolving?
- How do we compare with other IT departments in similar organisations?
- How do we align the perception of quality between the business and IT?
- Can you compare the quality and costs of our IT?

There are many existing assessment approaches based on ISO/IEC, capability models, maturity models, structured surveys as well as there being many different benchmarking approaches that provide detailed analytical outputs. These are typically focused and targeted internally, providing largely internal benefits to a company's IT organisation, looking mostly at the presence of documentation and processes, but none of them providing a comprehensive and straight forward answer to address the simple yet fundamental question asked by management – HOW GOOD IS OUR IT?

We believe that a simple question should have a simple answer.

What kind of answers are expected?

1. From a quality perspective your IT is above average and overall your IT quality level is in the top 20% of similar organisations.
2. Comparing to the situation 2 years ago your quality level has increased by X and there is clear improvement in the following areas….
3. In a similar organisation the average quality level is X while yours is Y, the main reason for this difference is…
4. External quality measurement shows that the quality of your IT department is X.
5. When comparing cost and quality you are getting better quality for the same costs when compared to similar organisations.

Finding the method to develop these kinds of answers was our catalyst for finding the structure, model, framework, rules and principles we detail here. The aim was to ensure that these would be universal, repeatable and able to be used by a wide range of consultants and IT experts.

The method and framework described in this document has been developed through field experience and reflects the experience gained providing quality assessments in different types of organisation.

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The concept is continually developing, absorbing ideas collected over ongoing assessments - There is not and will not be any final version.

An analogy in non-IT language

Similar to temperature measurement, until we agree on a scale we are not able to find the reference points to answer the question as to whether the room is warm or cold. Without a scale for reference the perception of individuals will be very different.

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2 Existing IT quality assessment approaches

There are traditional assessment approaches that are synonymous with the word quality and what we frequently see are three focus areas attributed to IT quality by these approaches:

- Customer satisfaction surveys
- Service level agreements
- Maturity of processes – Norm compliance
- Servqual
- ISO/IEC 20000
- COBIT®

Let's discuss briefly the pros and cons and why we believe that this does not encompass all that is IT quality.

2.1 Customer Satisfaction Survey

There is a strong tradition that attributes quality as equal to the result of a Customer Satisfaction Survey (CSS). There are, however, some significant concerns with this approach that should be understood before using a CSS in the IT domain.

A CSS is good for:
Providing intensive customer feedback to provider interaction, usually complemented with face-to-face contact, physical product exchange, visibility of activities, verbal or mail communication. Quality is transformed into emotions and feelings and the assessment is focused on how well the client was treated, what the client liked and what they did not.

For example, Service desk support is a perfect candidate for a regular CSS to align with the customer's needs and provide an effective feedback loop.

CSS has its roots in the more traditional service industries such as restaurants, hotels or travel services. Every person who participates in a survey related to i.e. restaurant quality, is very likely have a lot of experience with different restaurants thus has an experience driven scale in his mind.

A CSS is not good for:
Service interfaces with a limited or with no person-to-person interaction and services which are hidden and/or are underlying other services – Let's call them automated services. People do not tend to perceive automation as a service (no person-to-person interaction) therefore you do not expect to get emotionally driven customer feedback as to whether the service is good or not.

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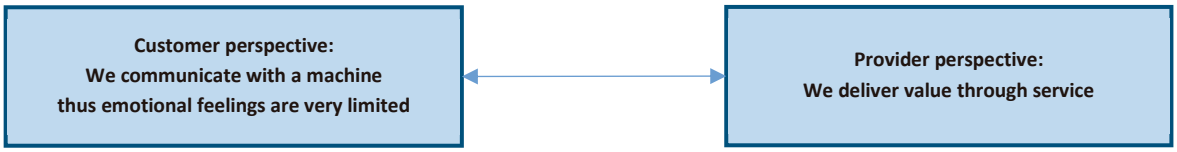
Do you remember any time recently whilst online banking when you felt 'quite satisfied' or 'satisfied' or 'very disappointed'? Most people perceive online banking as a machine which performs some function, but do not see online banking as a service.



Picture 1: Different perceptions of automated services

Conclusion

Gathering information on customer satisfaction is an important part of viewing the overall quality of an IT department, but it is not the only part that should be considered.

2.2 Service Level Agreement

SLAs are a tool frequently initiated by IT departments to provide some basis for measuring performance. The main idea stems from a period when IT was unreliable, frequent outages and performance issues were directly influencing user satisfaction as well as their loyalty and therefore needed to be carefully monitored and reported to the customer. IT has evolved significantly since that time. Many of the services delivered by IT are integrated between many service providers, complex interactions occur between internal and external systems, one activity based on complex algorithms triggers another activity.

In such a complex world calculation of availability is quite difficult and does not match all the variables that can occur in the course of daily user interactions. This is because many of the variations are of a low frequency, are a very special combination of inputs that start different workflows, forms and resulting actions. What does availability mean in such a complex interdependent process – Availability of any possible function, or only the important ones? What if there are some special features which are used only very rarely – Should you measure the availability of such a system as conditioned by availability of any possible feature?

And what about automation. A process which is routine, is frequently automated and performed with no or little human interaction involved – Should we measure the SLAs of these underlying services used by automated scripts or should we measure SLAs for the whole automation which has built in correction and auto repeat features?

Questions such as these make SLA definitions extremely complicated – Either there is too much detail or too little.

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SLAs are good for:

- Measuring the quality of services with a direct impact on the business – Completed versus uncompleted business transactions.
- Measurement of technical services between service providers in technical terms where the delivered services are well defined and there is payment associated with service delivery.
- Operational management – Reports used internally to measure a specific technology or organisational domains like Operational Level Agreements (OLA).

SLAs are not good for:

- Complex and non-routine business processes supported by IT.
- Where you have a wide range of different service lines where the quality has not been discussed and agreed with the customer, such as compliance services.
- Pushing the SLA approach to customers who do not adopted the service principles and do not pay for service consumption.

Most SLAs we see in place are initiated and formulated by IT, driven by what IT can measure, usually driven by available monitoring features. Many SLA reports have little or no value to the customer, because availability driven SLA reports do not show a connection with the end user's work and the consequences to the business.

Example of customer's question from a service review meeting:

'Your report shows that last month we had 100% availability, while the previous month was 99.6% - Does that mean we earned more money, we got a new customer or something else?'

'One important transaction from one critical customer has not been processed properly, in your SLA report where is it shown?'.

Conclusion

SLAs are useful once IT quality is defined together with the customer, in business terms and with agreed outputs. Most of the benefits are for IT operational management.

Remark

Significant part of the services we consume – hotels, restaurants, healthcare – are not defined in terms of SLAs and as customers we are satisfied and never ask for them to be put in place. Especially when looking at internal IT services this fact should be carefully considered.

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2.3 Process Maturity Assessments

The most frequently used quality assessment approach is the Process Maturity Assessment. For many years we have heard the often repeated cliché that modern, high quality IT is achieved through highly mature processes being implemented to their maximum. So, the next logical step is to think that maturing these IT processes, that are usually structured as per ITIL®, is the right approach and therefore should be the defining measurement principle.

A quite common assumption made by businesses it to think that the more processes implemented and the greater level of their maturity makes for a higher quality IT.

Traditional approaches are therefore driven using the CMMI™ process maturity model or ISO/IEC 15404 (or its newer version ISO/IEC 33001). The key point here is that you have freedom to choose which process(es) you will analyse and also the depth of your analysis.

Let's look at a simplified example of using a process maturity assessment as the basis for an overall IT quality measurement.

Process	IT A	IT B
Incident management	3.5	3.5
Problem management		2.5
Change management	2.5	2.0
Service Catalogue		2.0
Service Level management	3.0	
Average	**3.0**	**2.4**

Table 1 A simplified process maturity assessment

If you try and use the maturity levels to compare two different IT departments or are comparing one IT department that has experienced changes over a period of time, you need to consider what should be compared:

- The number of processes implemented?
- The maximum level reached?
- The missing processes in an assessment or in real practice?
- The average process maturity levels?

Our consultancy experience clearly shows that a too greater focus on process maturity is frequently misleading IT organisations into putting processes as their primary point of interest, with significant attention being paid to process KPIs rather than understanding that IT is a complex system where IT is responsible for services delivering value. From this focus on the processes rather than their measurement, heavy reporting systems are what gets management's main focus. And a strong believe that increasing the maturity of processes is the ultimate goal of IT managers. Operational metrics (incident, change) are used to substitute strategic metrics as IT does not attempt to think in systematic manner.

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Process Maturity Assessments are good for:

- Large IT organisations structured as per ITIL® processes.
- Comparison with the average process maturity levels of similar IT department sizes in similar industry sectors.

Process Maturity Assessments are not good for:

- Communication of the overall IT quality to the business and customers.
- The majority of IT departments like SMB, local government where ITIL® is not the driving IT organisation principle.

Conclusion

Process Maturity Assessments are a good tool for operational and tactical management, mainly for line managers. Should not be used as strategic measurement as processes is supporting mechanism for quality service delivery. Process Maturity Assessment is aid for understanding operational aspects or compliance fulfilment of IT governance policies. Process maturity cannot substitute holistic assessment of the IT as a complex system.

As a customer, have you ever been interested in process maturity levels in your favourite restaurant?

2.4 Servqual

Servqual is an approach developed in the 90's to assess the quality of service delivery in service oriented businesses. The key idea is driven by seeing quality as derived from the customer expectations and perceptions.

Servqual defines 10 dimensions of quality as observable from a customer perspective, defines sources of expectations which then derive perception through experience with service delivery.

Servqual brings forward the now widely used equation of quality as:

Quality = P - E

Where P is customer perception, and E is expectation

Major issues with the use of Servqual in the IT domain are:

- Perception and expectation are very subjective measures
- What if the Expectation is none / zero? 'no experience so far'
- What is the measurement unit? (scale)

Conclusion

Servqual is similar to CSS – As it represents the customer's view on the services received. We consider Servqual good for IT services with a high level of human-to-human interaction like computer repair

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services, Service desk, professional consultancy services, project manager performance etc. Looking at IT through the eyes of your customer is an important input towards gaining a holistic view on IT, but it is not all that IT is or does.

2.5 ISO/IEC 20000

This norm is driven by process management principles at its core. Norm provides a sound system for certification of, mainly, service providers, to enable them to demonstrate compliance with Norm to its customers. We found using ISO/IEC 20000 in an internal IT department very limited and frequently the complexity of an organisation is not suitable to invest time and effort in starting the certification and audit process.

Norm ISO/IEC 20000 is good for:

- External service providers (service provider type III) who delivers services within defined quality parameters (SLA) and who charge for their services.
- Large IT departments structured a per the ITIL® processes.

Not good for:

- Quantifying quality levels as it works on a binary level – yes/no.
- It cannot provide the basis for tracking the quality levels of the whole IT department.
- Internal, less complex IT.

In our consultancy we have met with external IT service providers who were ISO 20000 certified but their clients did not ask nor understand the scope of the certification achieved. In reality, the mentioned service provider had the certification only for their service desk support service while the clients thought that they were certified for all services they deliver.

We also met with IT departments who claimed to be “aligned with ISO 20000” but our general perception was lower than other IT departments where they had implemented the fundamentals of key processes but their general IT management was higher – In simple terms the later mentioned IT was better. A large volume of process documentation does not mean better quality IT.

Conclusion
Norm ISO/IEC 20000 is a good source of knowledge and improving IT governance. There is no quantitative rating which would allow for the measurement of the overall IT quality levels to be made

2.6 COBIT®

A business framework for the governance and management of enterprise IT, the latest version of COBIT 5 – provides an excellent source of information for IT processes assessment.

COBIT defines Processes for Management of Enterprise IT:

- Evaluate, Direct and monitor – 5 processes

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