The power of foresight

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CQI Conference speaker and Professor of Forecasting and Innovation at De Montfort University, James Woudhuysen, explains how data-driven decision making can help management to cope with uncertainty

What is forecasting?

The Oxford Dictionary defines the word *forecast* as the 'calculation or estimate of future events, especially coming weather or a financial trend'. But the forecasting James Woudhuysen has built his life's work on is much more complex.

He works in the business of data-driven forecasting – a planning tool that helps management in its attempt to cope with the uncertainty of the future. It relies on three types of data – corporate operations, customer purpose and the wider context – from the past and present, in addition to a keen eye for the analysis of trends.

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But what's this got to do with quality? When firms forecast their commercial future they are better equipped to support decisions on strategy, innovation, research and development, and the supply chain. James tells *QW* how to forecast for success...

HOW DO YOU DEFINE FORECASTING?

JAMES: The short answer is 'with difficulty'. There is no clear, accepted line. It's about the ability to analyse tendencies and counter-tendencies, saying how we can shape the future instead of letting the future shape us, and keeping an element of agency in mind.

HOW DOES FORECASTING PLAY A ROLE IN INNOVATION?

A lot of forecasts are drawn up with only technology in mind – the 'technological determinist' school of thought. The common view is that innovation in IT will determine the future, and technology is a powerful force, but it's not the only force. To reduce innovation to IT is a mistake and to reduce the future to the actions of IT is even more of a mistake.

HOW SHOULD ORGANISATIONS LOOK TO FORECAST THEIR COMMERCIAL FUTURE?

You've got to consider all that is relevant to your organisation because the trend of development in different technologies and sectors varies. It also depends on what kind of organisation you are. Some companies have problems forecasting, while others have the brainpower and apparatus for it. For example, Boeing has a 20-year market outlook forecast and it's really terrific – an industry bible for the airline industry. BP also does an energy outlook for the next 20–30 years. This is extremely important for those in the energy industry because it's so comprehensive – covering oil, gas, coal, nuclear, hydro, and renewables. Both forecasts are available in the public domain.

WHAT ARE THE COMMON PITFALLS WHEN FORECASTING?

Many forecasts are clichéd and the obvious danger is to extrapolate trends in the present unthinkingly.

In the 1980s I helped one of the largest design firms in the world, FITCH, build its apparatus for forecasting and it became a money-spinner for the organisation, but there was still a lack of awareness of its importance – a bit like quality.

Being able to advise as a consultant, to give a steer on the future, was valuable. However, the forecasting function, insofar as there is one, is poorly developed in most corporations. To really grow it in a professional manner remains a struggle.

WHY ARE DATA ON CORPORATE OPERATIONS IMPORTANT?

Getting data on corporate operations – sales, your market share, the prices of your competitors – is a big job. Then rolling it forwards a few years to see how much you'll sell in five years time is an even bigger job, especially if it depends on the sales force. But it's not the only factor as the trends in your industry are prior to your operational data. Forecasting is about how well you weld all of these factors into a coherent whole.

When I put forecasts together I work with both public and private sources – more organisations need to do this kind of blending. A good forecaster looks at everything. For example, if I were Head of Social Media at Virgin Media, I wouldn't just be focusing on social media. I would be asking, 'What's happening on the regulation front? Does the fallout from the case of whistleblower Edward Snowden impact on us? And how does all that affect social media and privacy concerns?' It's about making the connections.



James Woudhuysen, Forecaster, London, November 2014

"You've got to sketch the mediations between the big picture and your sector, look at what you've got and see if there are links"

Don't miss.

James' top 10 rules for forecasting, in the January issue of *Quality Express*

JAMES' TRFN



HOW CRUCIAL ARE CONSUMER TRENDS **AND CUSTOMER PURPOSE?**

We need to distinguish between observed customer behaviour and the intent behind that behaviour. Detecting what customers are doing, what they're buying or what they're complaining about doesn't tell you customer purpose. But knowing what they're really after will tell you a lot about what you could do better. What they're really after relates not only to their needs but also to their talents, which is what too many marketing professionals forget.

Your customers may not necessarily be thinking by the name and word 'quality'. In Lean operations there's an important principle that says workers who are facing the customer know best – as they're close to the process – and know more about what's going on than anyone in the boardroom. It's vital to make sure these people have the power to help make decisions because it's an important ingredient in capturing customer perceptions of quality, and doing something about these perceptions.

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CAN THERE BE PROBLEMS WITH **INTERPRETATION AND EXECUTION?**

Determining patterns and correlations through big data is good, but what organisations should want to understand is the causal relationship with these patterns, and that's a matter of interpretation. If you make the wrong interpretation, you will make the wrong execution.

Your insight, intellect, experience, openness to make prototypes, and ability to put yourself through all of that and learn from it - that is the key to refining your interpretation. You've got to go to some halfway houses, invent new concepts, see if they pass the muster, think about it again, invent prototypes, see where they went wrong, and do it again. It's full

2015

- UK POLITICAL AND CONSTITUTIONAL CRISIS
- UK TO HAVE MORE FRACTIOUS RELATIONS WITH THE EU
- A REAL UPENDING OF THE ENGLISH POLITICAL SYSTEM BY UKIP
- FRAGILITY OF UK ECONOMIC GROWTH LIKELY TO BE EXPOSED
- MORE WORRIES ABOUT EVERY ASPECT OF 'SECURITY', TERROR. ETC
- CONCERNS ABOUT RESOURCES AND SHOPPING WE'RE RUNNING OUT/WE'RE CONSUMING TOO MUCH

- MORE CHINESE INVESTMENT IN THE UK
- MORE FRACTIOUS RELATIONS WITH THE US
- THE GROWTH OF OPPORTUNITY IN INDIA
- THE SCI FROSIS OF FUROPE, A COLLAPSE OF THE **EUROZONE IS NOT AT ALL EXCLUDED**

2040

- THERE WILL STILL BE PROBLEMS WITH DRIVERLESS CARS
- A GREAT ANXIETY ABOUT DRONES AND CYBER WAR
- GROWTH IN AFRICAN MANUFACTURING
- INSTABILITY IN THE US AND CHINA
- FURTHER WORRIES ABOUT EUROPE

of setbacks but, through the mistakes, you go forward.

A notorious example is when analysts at the CIA were reporting on the durability of the Russian regime right up until the fall of the Berlin Wall. Their whole raison d'être was about the Cold War, so they weren't about to write an obituary to it because they thought it would threaten their prospects. They missed the fall and that wasn't just a little blemish it was what they were in the business to work out.

WHAT ROLE DOES THE WIDER **CONTEXT PLAY?**

Most companies will be transfixed by their operational data, living or dying by the quarterly business review and sales figures. Some will

be interested in industry data, while others focus on customer behaviour, but few are interested in the big picture. If we look at the business impact of Ukraine, ISIS or oil prices, the big picture is pretty important.

People aren't consistent about the wider context they're not building the apparatus to look at it in a comprehensive way. If you look at the major energy and construction companies, they're spending f_{2}^{2} or f_{11} in every f_{11} ,000 on research and development. But if you took out the forecasting part of that, you'd have to take a decimal step backwards, and by then vou're on an even worse wicket.

HOW CAN FORECASTS BENEFIT THE **OUALITY PROFESSION?**

At the moment all trade associations and their members are facing problems of legitimacy. 'The Farage factor' - people wondering where we're going (nothing to do with Nigel Farage himself) - is alive and well. My advice to quality professionals is not to be evangelical or technocratic, but rather to read more widely and deeply and have a critical attitude not just toward the profession, but also toward the clarity of the concept as a whole. You've got to sketch the mediations between the big picture and your sector, look at what you've got and see if there are links.

The future is always different from the past but to understand history - where you're coming from - is important if you want to know where you want to go. The emphasis on quality today is, in my view, too much on customer experience and not enough on customer purpose.

At the CQI Leadership Conference I will be discussing what we can learn from the history of different interpretations of quality – from quality during the post-war years, through the innovations of Toyota in the 1980s, to quality today. I will try to explain the changing contours of quality and how to make an agenda for it in the future that, without being glib, seizes on tomorrow's trends and interprets them in an interesting, productive manner.

Join James at the CQI Leadership Conference James Woudhuysen will be hosting a lively session, 'Forecasting the future: data-driven decision making' at the CQI Leadership Conference on 15 April.

Book your ticket now: www.cqiconference.org