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# Advanced Analytics in Public Service - Christopher Gray

## Video Transcript

### Christopher Gray

[MUSIC] Hi my name is Chris Gray and I look after analytics in the public service here at Accenture. Today I wanna talk to you about some of the ways that we're using advanced analytics to help our public service clients. The public service around the world is facing a number of challenges, not least of which the budget cuts that have been imposed on it over the last few years, as well as an aging workforce and an inability to replace staff as they leave.

There is also an increasing focus and a renewed focus on fraud, waste, and abuse. And ensuring the financial integrity of our tax and our welfare systems. So the case study I want to talk to you about today is with a major European tax agency. An agency that we have been working with, particularly over the last three years, in applying advanced analytics to their core processing operations. This client was facing a significant budget pressure, up to 20% year on year reductions in their budget. Which was leading to almost a 50% reduction in some of their front line staff.

The staff were working and dealing with tax exceptions. So every year people were filing their taxes. And business rules would generate exceptions that needed clerical intervention. They were also responding to telephone calls and customer post queries. Effectively, we worked with them and alongside our business process re-engineering colleagues through a three phase program to identify savings. The first area was in opportunity scan, the second area was subset of proofs of concept, and then the third area was moving very much into delivery and ongoing operations.

At the opportunity scan phase, we were using analytics really just to understand what was going on. Can we understand the micro segments and the clusters that existed within the work? Could we understand what was happening over time with those cases in terms of the workflow throughout the year? Once we had this segmentation in place we could actually start to understand and identify areas of opportunity. Which were cases that if we attacked them were taking a huge amount of time to deal with and perhaps deliver some savings for us. It was at that stage we could then move into proof of concept. And at the proof of concept phase we were using a variety of advanced analytics techniques to really understand what was going on. We were using, again, microlevel segmentation to break workloads down into their smallest level of component. And really understanding if we could differentiate and optimize the business processes for each of those small segments. We were using predictive modeling to understand what was the likely outcome having worked a case. So if we could predict the outcome, that had the opportunity to save certain clerical steps and potentially identify whether there was any value due at the end of the case or not. And that would lead us to put automation in place. We did root cause analysis, understanding if we could trace back to why the case existed in the first place, and actually by attacking that root cause, could we start to save the case from ever being generated in the first place. We then did data mining and data matching.

Using different data sources that perhaps hadn't historically been used to identify new sources of yield. Perhaps somebody hadn't told us of any additional income that they had. Or perhaps we saw some anomalies in the way that people were using some of their allowances and perhaps not paying all of the tax that was due. We brought all of those together in a model office, testing new ways of working and actually adjusting the models and the business process as we went through it. And only once we were happy, did we then move into delivery. As I look back now at the end of the program, we delivered millions of dollars of efficiency savings to the client. Effectively eliminating over five million items of work from their ongoing year on year work queues. We also identified hundreds of millions of dollars of increased tax yield that will now be coming into the tax agency on the year on year basis. Now they have been able to use those data sources and put on matching rules in place. Effectively, we've helped position this tax agency so that it's now in a position to be sustainable for the coming years. As well as, providing them with approach and a set of a methodology so they can continue to use and refine in the future. As they no doubt continue to be under increased budget pressure. We've also taken the opportunity to take the learnings from this case study and apply them more broadly to our other public service clients. In the public service often the first area that people are worried about is, how can I drive out efficiencies.

They often have more work than they have people. So actually how can we start to take some of that pressure off them? We've also continued to use the learnings around fraud, waste and abuse, and apply those to a variety of clients, not just in the tax sector, but also in the likes of customs agencies or welfare agencies. What's been clear to me as we've gone through this is being able to marry advanced analytics with business process reengineering. And really working at the ground with our clients, we're able to deliver significant and sustainable business change. Thanks very much for your time.