

## Strong Appetite for Emerging Technologies Like Biometrics, Machine Learning and Advanced Analytics from Singapore's Public Sector Agencies, Accenture Report Finds

Singapore's public service technology leaders rank increasing customer service as their number one outcome to achieve, along with Japan and Australia

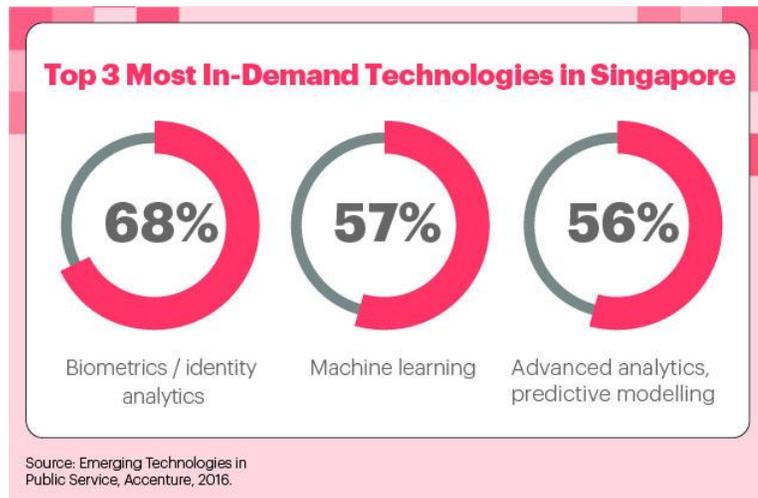
**SINGAPORE;** 21 March, 2017 – Singapore's public sector agencies have a strong appetite for intelligent technologies that are revolutionising the way citizen demands are addressed, helping to overcome persistent challenges such as regulatory compliance, outdated legacy IT infrastructures and organisational cultures, according to a new research report from Accenture.

The report, [Emerging Technologies in Public Service](#), examines the adoption of emerging technologies across agencies with the most direct interaction with citizens or the greatest responsibility for citizen-facing services: health and social services, policing / justice, revenue, border services, pension / social security and administration.

As part of the report, Accenture surveyed nearly 800 public service technology professionals across nine countries to identify emerging technologies being implemented or piloted. These technologies include advanced analytics / predictive modelling, the Internet of Things, intelligent process automation, video analytics, biometrics / identity analytics, machine learning, and natural language processing / generation.

The report shows that there is a clear appetite for embracing these intelligent technologies, with biometrics / identity analytics (68 percent), machine learning (57 percent) and advanced analytics / predictive modelling (56 percent) among the top in Singapore.

The survey also found that while more than two-thirds (70 percent) of public sector agencies are evaluating the potential of emerging technologies, only a small percentage (25 percent) are moving beyond the pilot phase to full implementation. This indicates that awareness is not translating into realised value for the majority of agencies surveyed. While most agencies are using traditional business technologies, emerging technologies -- like advanced analytics that include predictive modelling -- are making the biggest inroads.



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"Emerging technologies are proving to have tremendous potential value for enabling public service agencies to not only meet their key internal resource challenges, but also provide innovative approaches to address the evolving needs of their citizens," said Ng Wee Wei, Managing Director, Health & Public Service, ASEAN & Singapore at Accenture. "Agencies need to rotate to the new, embracing the full value of using data to take advantage of the power of social, mobile and self-serve technologies that the world is demanding."

Nearly half (48 percent) of the agencies already implementing advanced analytics technologies that include predictive modelling said their chief objective in implementing these tools is to improve and support their employees' work, and four-fifths (80 percent) of respondents said that implementing emerging technologies will improve employees' job satisfaction.

Biometrics solutions (e-passports and iris recognition) are in widespread use, with Singapore and Australia topping the charts with 68 percent of agencies implementing such technologies, followed by those in Japan (57 percent), France (42 percent) and the UK (34 percent). The primary business objectives for the use of

biometrics / identity analytics technologies was reducing risk and improving security (preventing fraud/ system abuse / crime) – Singapore (55 percent), Australia (35 percent), Japan (36 percent).

Advanced analytics are being commonly used to measure agency performance, with half of respondents at both pensions / social security and revenue agencies ranking it the top priority (50 percent and 49 percent, respectively). In Singapore, 30 percent of agencies use advanced analytics with predictive modelling and intelligent automation as a better way of working.

Security, privacy and digital trust concerns are challenges in every country in the survey, but top concerns in Singapore (54 percent), Australia (53 percent) and Japan (46 percent). Addressing data privacy and security issues is the most-common use for analytics across several types of agencies, cited by 52 percent of respondents at border services agencies, 46 percent of respondents at revenue organisations, and 39 percent of respondents at pension / social security agencies.

Improving service delivery to meet customer expectations was one of the lowest-rated uses for advanced analytics, with only two percent of border services agencies, five percent of pensions / social security agencies, six percent of policing / justice agencies, seven percent of revenue agencies and eight percent of administrative functions agencies identifying it as a top priority. Integrated social service agencies, at 15 percent, had the highest percentage of respondents citing “improving service delivery to meet customer expectations” as a top priority for using advanced analytics.

But, when the priority is improving citizen satisfaction, officials chose more-emergent technologies such as video analytics, biometrics, machine learning and the Internet of Things, according to survey results. More than three-fourths (78 percent) of respondents report that implementing machine-learning technologies are either underway or completed.

### **Benefits of Emerging Technologies**

The survey identified a range of benefits that agencies across all sectors are enjoying as a result of implementing advanced analytics and other emerging technologies, with the most-cited expected benefits being establishing a better way of working through automation; innovating and developing new services; and reducing costs.

Respondents across all agency sectors identified reducing risk and improving security as top expected benefits when deciding to invest in emerging technologies, with revenue and pension / social security agencies having progressed the furthest with piloting and implementing these technologies. Respondents at revenue, administration, policing / justice and border services agencies listed innovating and developing new services as the second-most expected benefit. Improving efficiency through automation was identified by integrated social services and pension / social security agencies as an additional expected benefit.

“Adoption patterns may differ by sector and geography, but it is clear that public service agencies have an appetite for embracing emerging technologies to help transform the public service experience for citizens and employees,” Ng said. “Government leaders need to focus on [delivering] value and on adopting these emerging technologies while creating the kind of internal conditions that will inspire employees to embrace change.”

### **Methodology**

Accenture conducted an online survey of 774 technology leaders in public service organizations at all levels of government, responsible for creating, maintaining and expanding citizen services, and overseeing budget, purchasing and policy decisions in nine countries: Australia, Finland, France, Germany, Japan, Norway, Singapore, the United Kingdom and the United States. The survey was supplemented by in-depth, qualitative interviews with technology experts across these countries.

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