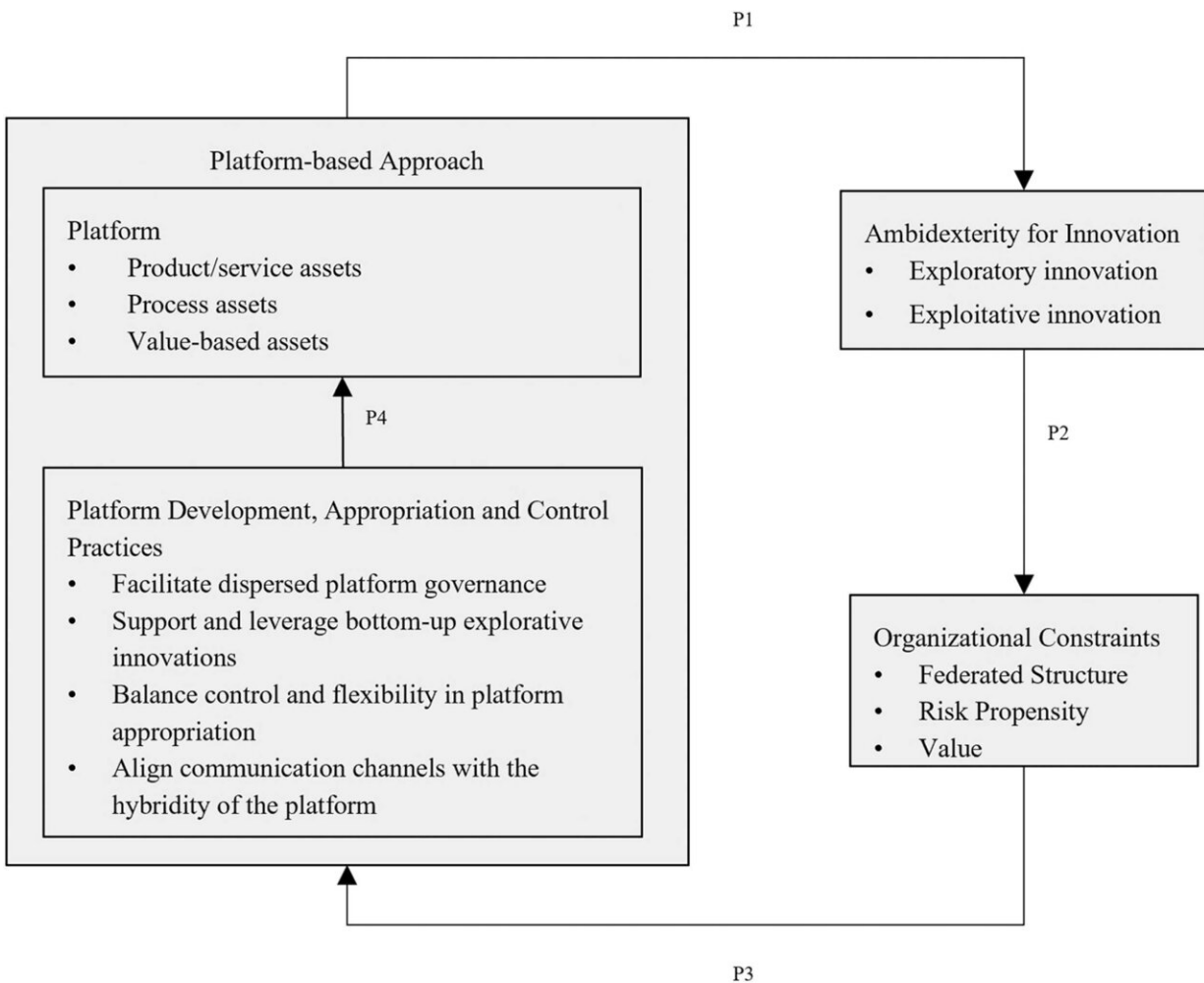# Research: Government agencies face unique challenges in achieving innovations

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Platform-based ambidexterity for innovations. Credit: *International Journal of Information Management* (2022). DOI: 10.1016/j.ijinfomgt.2022.102570

Government agencies and public sector organizations face unique constraints that impede their ability to discover new innovations, according to new research from Binghamton University, State University of New York.

However, after studying the operations of a major government agency, researchers found that the use of digital platforms and technologies may help alleviate some of these constraints.

"The world is changing fast. It's important that our public institutions find ways to innovate and keep up, while also making sure taxpayer money is not being wasted. Using platform technologies can be a useful way to ensure this efficiency and effectiveness," says Sumantra Sarkar, associate professor of management information systems at Binghamton University's School of Management.

Sarkar and his fellow researchers studied a government agency that employs nearly a quarter million people, has an operating annual budget of over $40 billion, and oversees 20 different individual units. Researchers conducted in-depth interviews with employees and pored over publicly available documents to get a sense of the unique problems public sector organizations face when trying to innovate.

They focused particularly on how the organization balanced their approach to exploitative innovation (discovering ways to make existing processes better) and exploratory innovation (discovering new opportunities).

"Maintaining a balance between exploitative and exploratory innovation is a challenge, as you need to have both to be successful. That balance is going to be different for each organization based on their mission," says Sarkar. "What makes it more challenging for public sector organizations is that they ultimately have to answer to the public when things go

wrong. They can't take many of the same approaches that private sector organizations do."

The researchers found that public sector organizations face three unique constraints when it comes to [innovation](#):

- **Federated structure:** Public sector organizations often oversee units that operate fairly independently from one another, each with their own set of responsibilities and goals. Each unit may have their own balance between exploitative and exploratory innovations as well. Because of this, it's difficult to apply a single innovative approach across all units.
- **Low risk propensity:** Government agencies are often more risk averse than private sector companies, as they fear that failure will erode public trust in the organization. This often leads to organizations focusing more on making existing processes more efficient rather than trying new things.
- **Culture and values:** A common perception of public sector organizations is that they are too busy complying with regulations to achieve new innovations. This creates a culture of norms that doesn't often encourage flexibility.

"In order for public sector organizations to effectively innovate, they need an approach that balances risk-aversion, a focus on compliance and includes fail-safes. We found that digital platforms helped strike this balance," says Sarkar.

Platforms, or software ecosystems, typically come in two forms:

- **Internal platforms**, which are customized for organization-specific tasks. An example would be a platform maintained by a retail business that integrates point-of-sale software applications with internal payment collection systems to simplify their online

shopping process.

- **External platforms**, which include functionalities for outside users to interact with the platform. An example would be AppExchange, an application marketplace created and maintained by Salesforce, which allows software developers, consultants and customers to interact.

The researchers found that a hybrid model between the two could be most effective.

"Hybrid platforms allow you to have standard functionalities for the entire organization, while also allowing for some flexibility for each unit to fit the platform to their specific needs and goals. It strikes a balance between standard and flexible," says Sarkar.

The paper was published in the *International Journal of Information Management*.

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