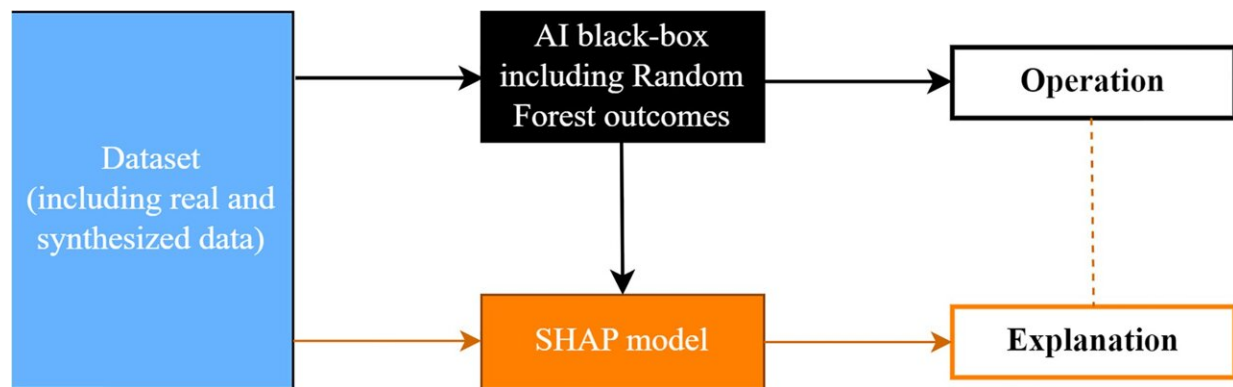


# Study shows how AI can be a 'crystal ball' for businesses to stay afloat

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AI explanation chart. Credit: *PLOS ONE* (2024). DOI: 10.1371/journal.pone.0301429

Businesses unsure how to survive the next global tragedy should have no fear, with a new study showing how artificial intelligence (AI) can help organizations stay afloat in rapidly changing times.

The new study led by Charles Darwin University (CDU) examined how AI can predict what factors impact an organization's ability to anticipate, prepare for, respond to, and recover from economic disruptions.

["eXplainable Artificial Intelligence \(XAI\) for improving organizational regility"](#) was published in *PLOS ONE*.

Data was collected from 44 industry individuals across Australia from

the private and public sectors, service organizations, universities, not-for-profits and more.

Most respondents were from the education, information technology, hospitality and tourism, and construction and engineering sectors and were asked questions about the current agility of their organizations and future challenges they might face.

eXplainable Artificial Intelligence techniques examined the [data](#) and predicted the top five factors affecting organizational agility: legislation or government changes that force organizations to change, globalization, low level of process maturity, technology, and digital disruption.

Lead author and CDU Associate Professor Niusha Shafiabady said by using AI to highlight factors such as the above, organizations could make corporate decisions faster, giving them competitive advantages and allowing them to adapt to rapidly changing environments.

"Failure to prioritize agility and responsiveness can result in increased costs, missed opportunities, competition and reputational damage, and ultimately, loss of customers, revenue, profitability, and [market share](#)," Associate Professor Shafiabady said.

"The COVID-19 pandemic has highlighted the importance of organizational [agility](#) and resilience.

"Organizations that are able to adapt quickly to change, anticipate and prepare for disruptions, and respond and recover effectively are more likely to succeed in the current volatile business environment."

Associate Professor Shafiabady said if organizations wanted to take further advantage of the technology, they could adopt AI systems that provide specific advice.

"Using this methodology, AI can provide personalized recommendations to each business depending on their own dynamics on the areas they should focus on to enhance their regility," she said.

The study was completed alongside the Adelaide Institute of Higher Education, Torrens University, and the University of Technology Sydney.

The new paper follows on from previous research led by Associate Professor Shafiabady on how AI can be used to [predict organizational agility](#) or a company's ability to effectively respond to change brought about by factors such as market competition, economic pressures, and emerging technology.

**More information:** Niusha Shafiabady et al, eXplainable Artificial Intelligence (XAI) for improving organisational regility, *PLOS ONE* (2024). [DOI: 10.1371/journal.pone.0301429](https://doi.org/10.1371/journal.pone.0301429)

Provided by Charles Darwin University

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