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Keywords specific to the paper:

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Summary of the main contribution:

In today's changing business world, Predictive Business Process Monitoring (PBPM) is crucial for making quick strategic decisions. Using Artificial Intelligence (AI) and Machine Learning (ML) has greatly improved PBPM, making predictions more accurate than ever. But these advanced models can be hard to understand, so it's important to find ways to explain them clearly to everyone involved.

There are two main ways to explain PBPM techniques: some are easy to understand from the start (like linear regression and decision trees), while others need extra explanation (like SHAP and LIME for neural networks). Different monitoring methods help us understand what might happen next in business. Some are simple and clear (like tree-based or rule-based methods), while others are more complex (like neural networks) and better at handling complicated patterns.

Making sure we can understand the results of PBPM is really important. We need to use the right methods to explain each model, and sometimes we need to use general methods that work for any model. Looking ahead, using deep learning will make predictions even better, but it might make explaining them harder. We have to find a balance between making predictions and making them easy to understand.

Moreover, using AI and ML in Business Intelligence (BI) is changing how we make decisions, making things better for customers and businesses. But we have to be clear about how AI makes decisions and make sure we protect people's data.

Creating a system to track business processes using information technology can help us see what's happening in real-time and plan ahead.

Blockchain technology is becoming important for tracking business processes because it makes data more reliable and transparent. But we still need to figure out how to make different systems work together and keep everything clear.

All these new technologies have the power to make businesses better, but we have to make sure we can explain how they work and use them in the right way. That means being open, clear, and ethical as we move forward.