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Paper title: Knowledge Graph-Based Explainable Artificial Intelligence for Business Process Analysis

In their study, Anne Füßl, Volker Nissen, and Stefan Horst Heringklee introduce Knowledge Graph-Based Explainable Artificial Intelligence (KG-XAI) to revolutionize Business Process Analysis (BPA). By integrating knowledge graphs with AI, they offer a transparent framework for dissecting complex processes. This synthesis highlights key concepts, methodologies, and findings driving BPA advancement through KG-XAI.

Introduction: Business Process Analysis (BPA) is critical for organizational efficiency. Füßl, Nissen, and Heringklee propose KG-XAI to address BPA's complexities, aiming for transparency and interpretability.

Key Concepts:

1. *Knowledge Graphs:* These capture domain-specific knowledge, aiding in process understanding.
2. *Explainable AI:* KG-XAI employs transparent techniques for process analysis, fostering understanding.
3. *Interpretable Analysis:* KG-XAI uncovers process patterns and anomalies, aiding decision-making.

Methodologies and Findings:

1. *Graph Construction:* Structured and unstructured data sources feed into knowledge graph construction.
2. *AI Modeling:* KG-XAI models employ interpretable AI techniques.
3. *Evaluation:* Case studies validate KG-XAI's efficacy in enhancing process analysis.

Conclusion: Füßl, Nissen, and Heringklee's KG-XAI approach offers transparency and interpretability in BPA. This synthesis underscores its transformative potential in driving organizational efficiency.