Knowledge Elicitation and Ontology-Based Visualization of Business Ecosystems: A Case Study from the Green Energy Ecosystem

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Abstract. The abstract should briefly summarize the contents of the paper in 150–250 words.

Keywords: Business Ecosystem · Knowledge Representation · Symbolic Artifical Intelligence.

1 Introduction

1.1 Challange

1.2 Business ecosystems

1.3 Green Energy Ecosystem

1.4 Research Question

How can organizational interactions in the wind energy ecosystem systematically captured and translated into structured formal knowledge representations to enable data-driven decisions?

2 Methology

2.1 Semi-Structured Survey

2.2 OWL2

2.3 Ontological Commitments

- **ClassAssertion**
- **ClassHierarchyAssertion**
- **ClassDisjointnessAssertion**
- **ObjectPropertyAssertion**
- **PropertyCharacteristicAssertions**
- **Methodological Limitations**

Table 1. Relationships and Theoretical Foundations

Relationship Type	**Theoretical Foundation**	**Logical Charecteristics**
Product & Service Delivery	Supply Chain Management (Chopra & Meindl, 2016); Value Chain Analysis (Porter, 1985); Business Ecosystems (Adner, 2017)	Irreflexive, Transitive
Payment	Business Model Ontology (Osterwalder & Pigneur, 2005); Value Network Analysis (Allee, 2008); Input-Output Economics (Leontief, 1986)	Irreflexive
Data	Knowledge-Based View (Grant, 1996); Digital Ecosystem Theory (Tiwana, 2013)	Irreflexive
Information	Knowledge-Based View (Grant, 1996)	Irreflexive
Collaboration	Resource-Based View (Barney, 1991)	Irreflexive, Symmetric
Conflict	Stakeholder Theory (Freeman, 1984)	Irreflexive,ASymmetric
Competition	Porter's Five Forces (Porter, 1979)	Irreflexive, Symmetric
Coopetition (Implicit)	Coopetition Theory (Brandenburger & Nalebuff, 1996)	Irreflexive

Visualization

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d3.js Methodological Limitations