

Title:

Examining the adoption of blockchain technology in the diamond industry Benefits and challenges of embracing disruptive innovation in conservative sectors.

Summary:

The thesis titled "Adoption of Disruptive Innovation in Conservative Industries" explores the challenges and opportunities of implementing disruptive innovation, specifically blockchain technology (BT), in the conservative diamond industry. The study aims to provide insights into the antecedents that affect innovation adoption in conservative industries and to analyze the benefits and challenges of implementing BT in the diamond sector. Additionally, the thesis contributes to existing theories such as the Technology Acceptance Model (TAM) and the Innovation Diffusion Theory (IDT) by examining their applicability in the context of conservative industries.

The research findings shed light on several key aspects. Firstly, the study identifies interrelated antecedents that influence the adoption of disruptive innovation. Factors such as competition can encourage adoption by familiarizing companies with new technologies and highlighting their competitive advantage. However, the dependency on major industry players hampers adoption, as smaller companies are reluctant to take risks without the endorsement of industry leaders. Resistance to change, industry heritage, and uncertainty are other unfavorable factors linked to the standardized nature and dynamics of the diamond industry.

Furthermore, the benefits and challenges of implementing BT in the diamond industry are discussed. BT offers advantages such as transparency, traceability, ethical business practices, streamlined transactions, and reduced price volatility. However, the study highlights challenges related to complexity, observability, infrastructure modifications, data privacy, scalability, energy usage, intangibility, and comprehension. The importance of carefully considering the advantages and disadvantages of BT deployment in the diamond sector is emphasized. The thesis contributes to the existing knowledge in multiple ways. Firstly, it deepens the understanding of technology acceptance in the diamond industry by exploring why sustaining technologies are more likely to succeed than disruptive ones. The study complements the TAM by demonstrating that incumbent companies, perceived as pillars in conservative industries, dictate trends and favor sustaining implementations. Secondly, it extends the IDT by providing insights into innovation diffusion specific to the diamond industry and showing how the industry's conservatism and identified antecedents pose barriers to the widespread acceptance of BT.

The research methodology employed in the study combines qualitative and conceptual approaches. Four experts located in France, Belgium, Switzerland, and Italy were interviewed to gain industry-specific insights. The qualitative data obtained from these interviews were analyzed to identify common themes and patterns related to innovation adoption and the challenges of implementing BT in the diamond industry. The research also relies on theoretical frameworks such as

TAM and IDT to provide a comprehensive understanding of the adoption process and diffusion of disruptive innovation.

However, the study does have some limitations. The availability of literature specific to the diamond industry and the limited access to data could have influenced the analysis and findings. The small sample size and geographic focus may restrict the generalizability of the results. Moreover, the thesis primarily focuses on behavioral aspects and lacks detailed technical exploration of BT implementation.

In conclusion, the thesis makes valuable contributions to knowledge by investigating the adoption of disruptive innovation in conservative industries, particularly in the diamond industry. It provides insights into the antecedents that affect innovation adoption and analyzes the benefits and challenges of implementing BT. By combining qualitative research and theoretical frameworks, the study offers a comprehensive understanding of technology acceptance and innovation diffusion in conservative industries. Future research directions include addressing the limitations, expanding the sample size and geographic representation, exploring technical aspects, and further enhancing the proposed solutions for BT implementation in the diamond industry.