[Units 1-3] Collaborative Learning Discussion 1: Summary Post

1. Introduction

In the Risks of Digitalisation of Business Models, Kovaitė and Stankevičienė (2019) discuss the risks and uncertainties of choosing to make a full or partial transition of business models driven by technology developments in Industry 4.0 (I4.0). This post explores the term I4.0 and real-world risks involved in the digitalisation process.

2. Industry 4.0 (I4.0) and Real-world Risks

I4.0 is the fourth global revolutionisation, transformation and internationalisation of the industry, society and traditional business models driven by advancements in modern technology (Kovaitė et al., 2019) - "individual pillars" of I4.0 such as the Internet of Things and cloud computing (Kovaitė & Stankevičienė, 2019). Designed specifically for digitalising business models, RADi was a matrix of risk assessment that uses the Factor relationship (FARE) method to evaluate multiple factors against a subject. The five main types of risks are technical, competence, behavioural, data security and financial risks.

3. Technical and Behavioural Risks

Technical risks are involved in the integration of IT systems across multiple stakeholders in a supply chain (Birkel et al., 2019). The compatibility of existing software systems and hardware devices such as sensors in the manufacturing industry is perceived as a substantial risk, as adopting new solutions increases resource costs, also posing a financial risk. Another perspective assesses a digital

small and medium-sized enterprise (SME) supply chain's vulnerabilities and recovery plan (Radanliev et al., 2020).

Behavioural risks are human tendencies that have potentially harmful outcomes. The human decision-making process is often subjective due to conscious and unconscious cognitive biases such as being influenced by the "status quo bias" and reverting to previous methods, which could hinder buyer-supplier relationships. The collaboration between individual representatives, including communication, negotiation and opportunistic behaviour, impacts operational risk management (Burger et al., 2021). Nomusa Majola's suggestion of fostering "culture and talent" and governance of protocols and policies (2022) in organisations is an applicable risk mitigation strategy.

4. Conclusion

Through new opportunities in I4.0, SMEs have emerged as key players in the worldwide economy, such as the significance of Lithuanian SME exports (60% of the total) in 2017 (Kovaitė et al., 2019). The complex interdependencies between human, technology and the organisation are evident in the socio-technical framework patterns explored by Hobscheidt et al. (2020) to optimise the risks of SMEs in I4.0. Therefore, the evaluation of risks is fundamental in the digitalisation of SMEs.

References

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