

Application of Digital Twins in multiple fields

Presented by: Abrar Al Sayem (18201194)

1. Summary

- 1.1. Motivation/purpose/aims/hypothesis: The world is rapidly moving towards digital transformation, and the study sought to examine the role and potential of Digital Twin (DT) in enhancing various business sectors. The purpose was to understand the depth of integration and benefits of DT in both offline and online business models, especially in the wake of shifting consumer behaviors post-Covid-19.
- 1.2. Contribution: The paper provided an in-depth analysis of the application of DT in the offline and online business realms. It delved into innovative methods like virtual touch for offline sales, psychological influences on online buying behavior, and the revolutionary potential of DT in logistics and warehousing.
- 1.3. Methodology : The paper provided an in-depth analysis of the application of DT in the offline and online business realms. It delved into innovative methods like virtual touch for offline sales, psychological influences on online buying behavior, and the revolutionary potential of DT in logistics and warehousing.
- 1.4. Conclusion: DT stands as a pivotal tool in the modern business landscape. Its potential in revolutionizing sectors, from industrial production to healthcare and business, is vast. However, for its widespread adoption, DT's precision and robustness are paramount.

2. Limitations

- 2.1. First Limitation: Despite many Digital Twin papers discussing the agricultural revolution of 4.0, this paper did not discuss about it directly.
- 2.2. Second Limitation: The research does not delve deeply into the potential challenges or ethical considerations of widespread DT implementation, particularly in terms of data privacy and security, which are paramount in today's digital age.
- 2.3. Synthesis: The ideas presented in the paper underscore the inevitable move towards a digital-first world, with DT at its core. While the current applications of DT, as discussed, are transforming sectors, its future scope is even more intriguing. DT could potentially pave the way for entirely virtual shopping streets, revolutionize global supply chains with real-time DT-based tracking, or even usher in a new era of hyper-personalized services across sectors. As industries continue to evolve, DT will likely play a crucial role in shaping the next wave of innovations and consumer experiences.