**Peer response 3**

Jafar describes an IT crash at the Royal Bank of Scotland to highlight the potential challenges and risks created by the increased adoption of information technology. The overnight crash led to approximately 600,000 payments being missed, and was only resolved one week later (Peachey, 2015). Jafar outlines some of the damages caused by this outage, including financial hardship resulting from delayed payments for customers, and reputational and financial costs for the bank. Importantly, the bank had already been fined £56 million 3 years before for similar IT failures.

Adoption of information technology offers many potential benefits, particularly in the banking sector, including higher resistance to systemic risks and better asset performance (Pierri and Timmer, 2022). Nonetheless, this example illustrates many of the potential risks associated with Industry 4.0, namely the reliance on information technology systems to handle large amounts of critical processes such as financial transactions. Such systems must be safe, robust, and transparent (Ali et al., 2022). They also require constant updating and optimisation in the face of increasing data volumes, speed, and complexity, as well as ever-evolving cybersecurity threats, and these standards must be upheld and safeguarded by the relevant regulators (Mathias et al., 2024).

The repeat RBS IT failure highlights the drastic impacts of both negligence and poor accountability within the financial sector, and a lack of effective regulatory action. Preventing further repetitions of this incident requires a strong commitment to IT integrity and security by companies handling large amounts of financial transactions, namely through appropriate design approaches, stress-testing, and deployment of back-up systems (Verma, 2024). At the same time, appropriate regulatory oversight is also required through preventive measures together with strong and consequential action once issues are found, which could have prevented the repeat failure seen in this example and its severe consequences (Vives, 2019).

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