**Summary Post – Internet of Things**

Industry 4.0 is bringing beneficial changes to several industries' business challenges of this era. Innovative approaches and strategies that include technological advancements, like IIoT (Industrial Internet of Things), have made it easier to tackle challenges like sustainability, waste management, and efficiency in modern businesses. These devices record events that an organisation goes through, and later, this data can be analysed to distribute the organisation’s resources more efficiently. RFID tags, for example, can track a vehicle and produce data on the vehicle’s route and distance travelled, which can be analysed to increase efficiency, which reduces fuel cost and consumption, hence improving the organisation’s sustainability needs as well (Rane & Thakker, 2020).

Furthermore, in other industries, like the construction industry, IIoT can bring several benefits, including reduced health and safety accidents, effective inventory management, and assistance in operations that reduce the strain on the lack of employees in these industries. However, the application of IIoT is not without challenges, and several barriers must be broken to apply these technologies efficiently. The biggest barrier is technical expertise. The lack of trained personnel in understanding IIoT is a barrier to application. Despite training could be the solution, willingness to train due to costs or employee reluctance are challenges that the industry faces (Maqbool, Saiba, & Ashfaq, 2023).

Another ever-present concern is security. IoT architecture generally consists of three layers: the application layer, where data is processed and managed; the network layer, where communication between devices occurs; and the perception layer, where the physical device lies. All these layers can have security challenges like code breaches in the Application Layer, unauthorised access in the Network Layer, and hardware altering in the Physical Layer. Despite these challenges, IoT devices are still considered a great tool for tackling business challenges in today’s era.

Having said this, the future looks bright for this technology, as further standardisation of the IoT infrastructure and technological advancements will help decrease interoperability issues and improve security issues (Khaled, 2022).

**References**

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