

CASE STUDY COLLECTION

From limited budget to limitless potential: the digital journey of OSHE@UTM



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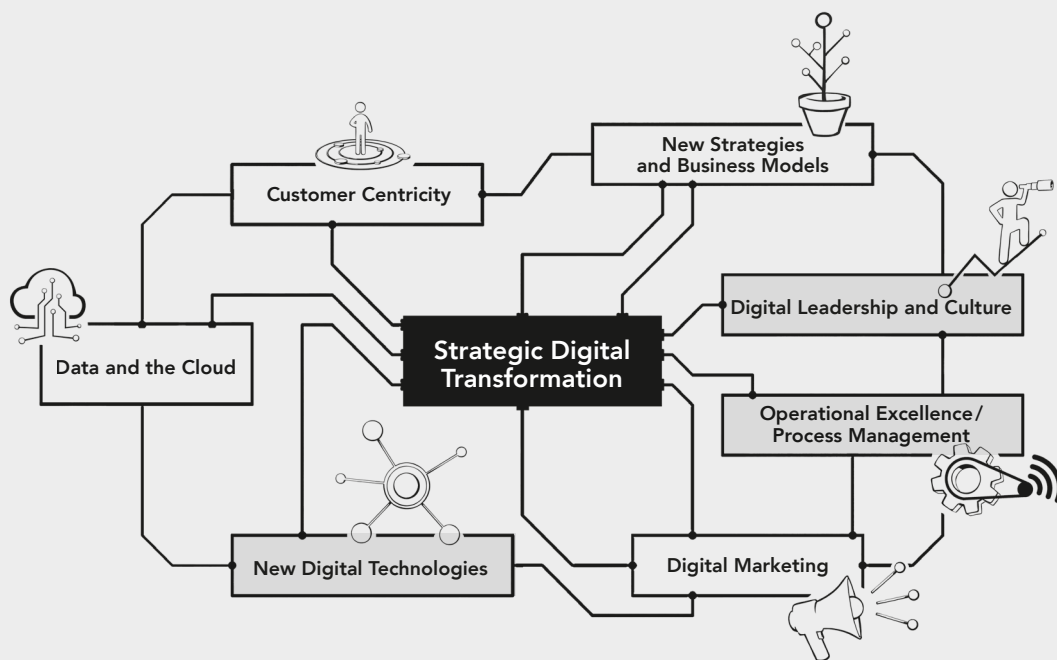


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FROM LIMITED BUDGET TO LIMITLESS POTENTIAL: THE DIGITAL JOURNEY OF OSHE@UTMKL

Case organisation profile

- **Organisation name:** Universiti Teknologi Malaysia
- **Country:** Malaysia
- **Description:** Universiti Teknologi Malaysia (UTM) is a premier research university in Malaysia, renowned for its innovation and technical expertise
- **Number of employees:** 3,000
- **Website:** www.utm.my | dvcdev.utm.my/oshe-kl



The OSHE@UTMKL case study primarily covers the action fields of 'new digital technologies', 'digital leadership and culture' and 'operational excellence / process management'.

Background information and challenges

Universiti Teknologi Malaysia (UTM) is a premier research university in Malaysia and its Kuala Lumpur campus (UTMKL) is a key hub, catering to around 3,000 students, offering diverse programmes in engineering, management and advanced technology. Within UTMKL, the Occupational Safety, Health, and Environment Unit (OSHE@UTMKL) was established in 2016 to address safety and health management, ensuring compliance with ISO 45001 standards. OSHE@UTMKL plays a vital role in fostering a strong safety culture, focusing on students, staff and academic activities while navigating challenges such as budget constraints. The unit leverages digital tools to manage safety reporting, audits and compliance, with plans to implement a fully integrated digital OSHE management system by 2025 to meet evolving safety and regulatory demands.

Despite these financial constraints, OSHE@UTMKL efficiently utilised open-access and free IT tools like WordPress, Google Docs and Google Forms to re-engineer processes and manage safety operations, including incident reporting, document management and audits. A significant early challenge was fostering a robust safety culture while maintaining compliance with limited resources. Future challenges include enhancing the digital OSHE management system by 2025, aiming to improve efficiency, scalability, safety awareness and staying compliant with evolving regulations.



UTM Kuala Lumpur campus

Strategic activities to develop a digital business/digital transformation strategy

OSHE@UTMKL's digital transformation began by securing top management support, emphasising a long-term vision focused on developing a strong safety culture through digital innovation and digital processes. The strategic approach was rolled out in phased stages:

- **Short-term (2016–2018):** the initial focus was on raising safety awareness and introducing staff to the OSHE Management System. OSHE@UTMKL leveraged cost-effective digital tools like Google Docs, Google Forms and Google Drive to handle safety reporting, audits and document management, ensuring operational efficiency despite budget limitations. These tools served not only as functional assets but also as platforms for digital skills development, allowing staff to familiarise themselves with essential digital competencies. This approach also allowed for smooth operations with limited financial resources.
- **Medium-term (2019–2021):** efforts to strengthen the safety culture intensified through activities such as OSHE Day events, workshops and training programmes aimed at upskilling staff, many of whom obtained certifications like the

OSH coordinator and safety and health officer (SHO) certificates. To further integrate digital processes, the unit developed detailed digital requirements for enhancing the OSHE Management System. A formal proposal was submitted to top management, highlighting the need for advanced digital tools to improve safety processes. This period also saw the achievement of ISO 45001 (occupational health and safety management systems) certification, which significantly boosted OSHE@UTMKL's reputation and credibility. The use of IT tools during this phase supported not just operational improvements but also contributed to a cultural shift towards embracing digital solutions and promoting safety awareness among staff.

- **Long-term (2022 and beyond):** the long-term goal is the development of a fully integrated digital OSHE management system. This system will automate and streamline safety processes, enhance data-driven decision making and support the scalability needed to adapt to future demands. The focus on digital transformation will ensure continuous improvement in safety performance and operational efficiency.

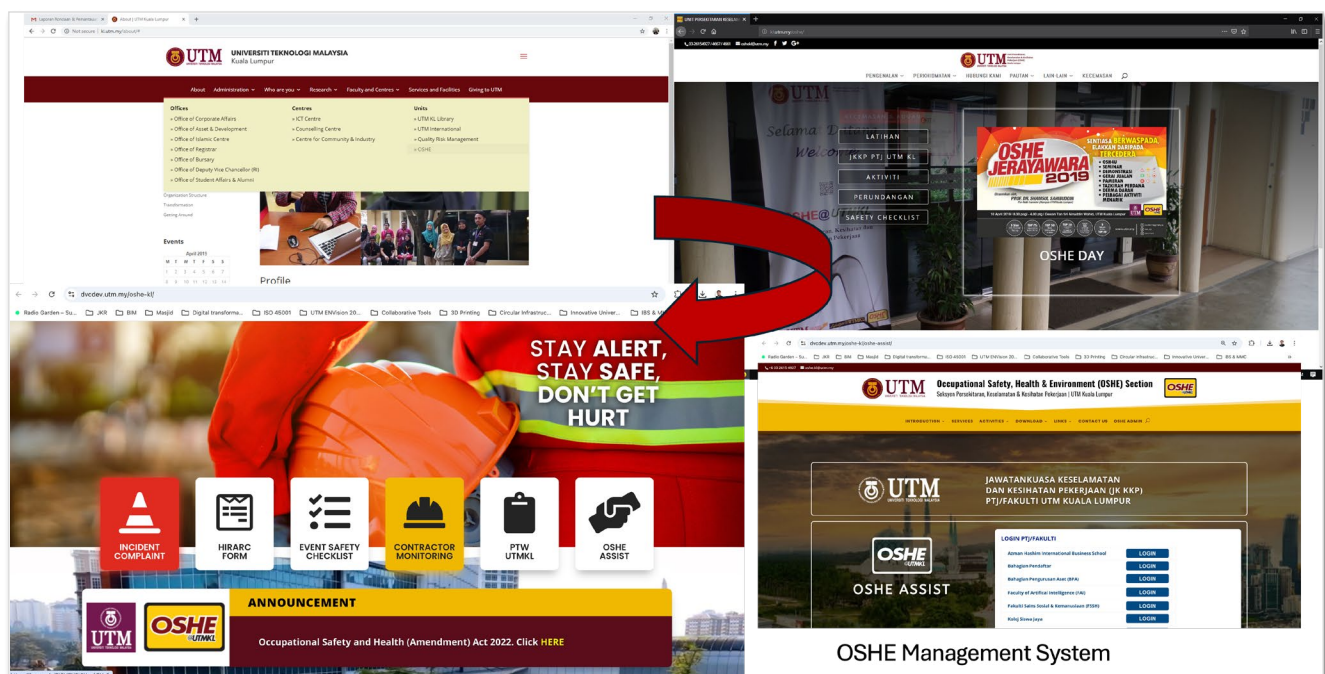


Strategic Development Plan for OSHE Management System.

Concrete strategic digital initiatives and projects under way

Current digital initiatives include:

- The continued use of free IT tools (WordPress, Google Docs and Google Forms) for all key OHSE processes, including incident reporting, document management and audits, enabling staff to develop proficiency in digital applications.
- A strategic push for enhancing safety culture through digital platforms, such as online workshops and webinars, which also serve as opportunities for digital skills building.
- Development of a comprehensive digital OSHE management system by 2025, which will integrate various safety management functions, ensure compliance with ISO 45001 and improve overall process efficiency.
- Digital initiatives supporting employee training and development, including remote learning platforms for certifications and safety management training, reinforcing both digital competence and safety knowledge.



An example of OSHE digital transformation from static website to interactive website linked with digital OSHE Management System.

Advantages and disadvantages of the current digital strategy

Advantages:

- **Cost-efficiency:** the use of free tools allowed OSHE@UTM-KL to operate with minimal budgetary impact while also facilitating skill development among staff.
- **Increased reputation:** achieving ISO 45001 certification despite budget constraints helped improve the university's reputation for safety management.
- **Scalable solutions:** the digital systems in place can be expanded upon, allowing flexibility for future growth, especially as the budget increases.
- **Cultural shift:** the integration of IT tools has helped foster a culture of digital competence and safety awareness among the staff.

Disadvantages:

- **Limited integration:** current systems lack seamless integration (primarily due to the use of free digital tools), leading to manual data management and potential inefficiencies.
- **Security concerns:** free tools may pose challenges in terms of data security and long-term scalability, necessitating investment in more robust digital infrastructure in the future.

Preparation of Employees and Stakeholders for the New Digital Strategy

Employee training and stakeholder engagement were critical to the digital transformation at OSHE@UTM-KL. Awareness activities such as OSHE day events and hands-on workshops were organised to familiarise staff with new digital tools. Training programmes focused on developing key competencies, including obtaining OSH coordinator and SHO certifications. These initiatives aimed to create a proactive safety culture, preparing employees to transition smoothly into more advanced digital systems. By integrating digital skills training into these programmes, staff members became more adept at using digital tools, which further enhanced their engagement in safety practices.

Learnings from digital transformation so far

Key learnings from OSHE@UTMKL's digital transformation include:

- **Efficiency through incremental digitalisation:** small, cost-effective digital improvements can have a significant impact, especially in the early stages.
- **Importance of strategic planning:** having a clear, phased approach (short, medium and long-term goals) ensures that resources are used effectively and helps gain management support.
- **Employee engagement is crucial:** training and awareness programmes are essential for ensuring that employees are on board with the digital transformation process.
- **Certification as a lever for reputation:** gaining ISO 45001 certification significantly boosted OSHE@UTMKL's credibility and has driven further improvements.
- **Cultural embrace of digital tools:** promoting the use of IT tools has been instrumental in changing the organisational culture, making staff more receptive to digital solutions and enhancing safety practices.

Recommendations to other organisations and students regarding digital transformation

- **Obtain top management support:** a successful digital transformation requires backing from the highest levels of the organisation.
- **Strategic planning is key:** have a well-defined short, medium, and long-term strategic plan, setting realistic goals.
- **Start small and leverage free tools:** begin with small initiatives and utilise available, cost-effective digital tools before moving to more complex systems.
- **Invest in safety culture:** digital transformation is not just about tools and systems; it requires embedding a culture of safety and continual improvement.
- **Focus on certifications:** obtaining industry-relevant certifications (such as ISO 45001) can help build credibility and foster a commitment to best practices.
- **Balance technology with training:** ensure employees are fully engaged and trained to adopt new digital tools.
- **Digital transition:** invest in digital literacy and continuous training for employees to ensure smooth transitions.
- **Digital roadmap:** focus on building a digital roadmap that anticipates future needs and incorporates flexibility for scalability.

Summary

The digital journey of OSHE@UTMKL demonstrates that, even with limited resources, organisations can effectively streamline processes and leverage IT tools to drive digital transformation. By fostering digital skills and a safety culture among its staff, OSHE@UTMKL has laid the groundwork for continuous improvement in safety management and operational efficiency. This case study highlights the importance of strategic planning, top management support, the use of digital tools and a focus on employee engagement in successfully navigating the challenges of digital transformation.

Student questions

Discuss the following questions in your class, in your group or assignment:

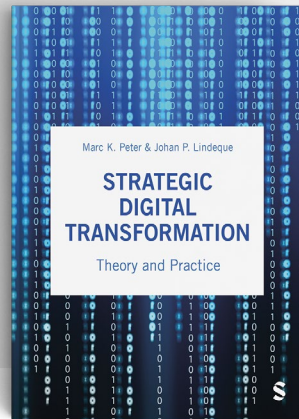
1. How can an organisation with limited resources effectively undergo digital transformation and streamline/digitise processes?
2. What role does ISO 45001 certification play in supporting an organisation's safety and health objectives?
3. How can free or open-source tools contribute to the early stages of digital transformation in a cost-conscious environment?
4. What are the potential challenges in scaling up from basic digital systems to more integrated digital platforms?
5. How can organisations measure the success of their digital transformation in terms of employee engagement and safety performance?
6. In what ways can IT tools support both the development of digital skills and the cultural shift towards safety awareness among staff?
7. What strategies can be employed to ensure that all employees are prepared for the adoption of new digital systems and processes?

Additional Information

- ISO 45001 Occupational Health and Safety Management Systems: www.iso.org/standard/63787.html
- UTM OSHE@UTMKL website: dvcdev.utm.my/oshe-kl
- WordPress: wordpress.com
- Google Workspace: workspace.google.com

Acknowledgements and authorisation

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The new textbook «**Strategic Digital Transformation**» provides future managers with a learning experience rooted in academic knowledge, while allowing familiarity with a comprehensive practice-oriented digital transformation methodology.

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- Part 1: Foundations of Digital Transformation
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- Part 3: Digital Transformation in Practice
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