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RECTOR'S MESSAGE



I would like to extend my gratitude for your visit to FBM Insights Volume 8, a publication brought forth by the esteemed Faculty of Business and Management, UiTM Kedah Branch. This bulletin endeavours to present a concise and beneficial collection of important insights and research findings derived from the domain of social sciences.

FBM Insights aims to simplify complex social science concepts into easily digestible bullet points, making valuable knowledge more accessible to a wider audience. In this bulletin, each article provides a glimpse into the diverse and dynamic world of social sciences, including psychology, sociology, economics, finance, and other pertinent fields. Through concise and informative summaries, the intention is to promote a deeper understanding of human behaviour, societal trends and the multifarious factors that shape our world.

My heartfelt appreciation is proffered to the dedicated researchers and scholars whose works form the foundation of this bulletin, contributing significantly to the ever-changing landscape of knowledge in social sciences. In navigating the modern era's challenges and opportunities, the intrinsic value of social science research in guiding policy decisions and fostering social cohesion cannot be overstated.

I sincerely hope that this bulletin will spark readers' curiosity and inspire them to delve deeper into the myriad facets of human society and behaviour. Irrespective of whether you are a student, educator, or policymaker, I firmly believe that this publication will serve as an invaluable resource in your quest for knowledge.

Once again, thank you for embarking on this journey of discovery with us. Together, let us explore the captivating world of social sciences and its profound impact on our lives.

Thank you.

Prof. Dr. Roshima Haji Said

Rector Universiti Teknologi MARA (UiTM) Cawangan Kedah

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	THE LIVING WAGE: UNDERSTANDING THE IMPORTANCE AND IMPACT Nor Azira Ismail, Jamilah Laidin & Shahiszan Ismail						
	IMPACT OF SOCIAL MEDIA ON UNIVERSITY STUDENTS Nurul Izzati Idrus & Nurfaznim Shuib						
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LEAN MANAGEMENT DRIVING SUSTAINABILITY IN MALAYSIAN EDUCATION

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INTRODUCTION

In today's ever-evolving world, lean management has emerged as a powerful approach to enhance efficiency and promote continuous improvement across various industries (Toussaint & Berry, 2013). Initially rooted in the manufacturing sector, lean management has proven its adaptability and applicability to other domains, including the educational sector. By emphasizing streamlined processes, waste reduction, and resource optimization, lean management presents a transformative opportunity for educational institutions to achieve greater operational effectiveness.

However, efficiency alone is insufficient to address the educational sector's complex challenges. The need for sustainability has become a pressing concern, not only in Malaysia but also worldwide. Sustainability goes beyond traditional environmental preservation; it encompasses economic viability and social inclusivity (Benn et al., 2013). For the educational sector, embracing sustainability means nurturing environmentally responsible practices, utilizing resources responsibly, and ensuring equitable access to quality education.

Malaysia, a country known for its vibrant cultural diversity and rapid economic growth, also faces unique sustainability challenges in its educational system. As one of the fastest-growing economies in Southeast Asia, Malaysia's educational sector must confront issues related to resource allocation, infrastructure development, and equitable education access for marginalized communities. Balancing the demand for quality education with sustainable practices becomes imperative to secure a prosperous and harmonious future for the nation.

Malaysia's educational landscape currently confronts several sustainability challenges that require immediate attention. From an environmental perspective, educational institutions contribute to energy consumption and waste generation, collectively impacting the nation's carbon footprint. Moreover, limited funding and budget constraints hinder the implementation of sustainability initiatives, making it essential to explore cost-effective solutions that foster resource efficiency. Additionally, the educational sector needs to address social concerns, such as inclusivity and community engagement, to ensure education benefits all segments of society, irrespective of background or location.

By adopting lean management principles and integrating sustainability into the fabric of educational institutions, Malaysia can pave the way for a brighter and more resilient educational landscape. The subsequent sections of this article will delve deeper into the potential synergy between lean management and sustainability, offering insights into how these two powerful concepts can collaborate to bring about positive change within Malaysia's educational sector.

Understanding Lean Management in Education

Lean management is a systematic approach focused on maximizing value and minimizing waste within processes and operations (Martinez Sanahuja, 2020). It originated in the manufacturing industry and was first introduced by Toyota as the Toyota Production System (TPS) in Japan during the post-World War II period. The primary objective of lean management is to enhance efficiency, productivity, and quality by eliminating activities that do not add value to the end product or service.

In manufacturing, lean principles revolve around reducing overproduction, unnecessary inventory, waiting times, transportation, motion, processing steps, and defects. These concepts became known as the "7 Wastes" (also called Muda in Japanese). The success of lean management in manufacturing led to its adaptation in various sectors, including healthcare, services, and, importantly, the educational sector (Klein et al., 2022; Sremcey, 2018).

Though initially developed for manufacturing, the fundamental principles of lean management can be adapted and effectively applied to the educational sector (Nawanir et al., 2019). In education, lean management seeks to optimize processes and resources to enhance the overall learning experience for students, teachers, and staff. Some key lean principles applicable to education are:

- a. Value definition: Identifying what constitutes value in education by understanding the needs and expectations of students and other stakeholders. This helps in aligning educational practices with desired outcomes.
- b. Elimination of waste: Streamlining administrative processes, reducing paperwork, and eliminating redundant tasks are examples of how waste reduction can be applied in education. By doing so, educators and staff can focus more on providing quality education and student support.
- c. Continuous improvement: Encouraging a culture of continuous improvement among educators and students, where they regularly seek opportunities to refine and optimize their practices, ultimately leading to better learning outcomes.
- d. Pull system: Tailoring education based on individual student needs and preferences rather than adopting a one-size-fits-all approach. This approach can enhance student engagement and motivation.

The integration of lean management in education has the potential to optimize resource utilization, reduce waste, and ultimately lead to enhanced student outcomes and a more sustainable educational system.

The Synergy Between Lean Management and Sustainability

Lean management and sustainability share a common ground regarding their objectives and underlying principles. At its core, lean management seeks to optimize processes, eliminate waste, and improve efficiency. By doing so, it reduces the strain on resources and minimizes environmental impact, which aligns perfectly with the goals of sustainability. In the context of education, lean management can be applied to various aspects of educational institutions. For instance, it can help streamline administrative processes, reduce paper usage through digitization, and implement energy-efficient practices in school facilities (Klein et al., 2022; Sremcev et al., 2018).

Meanwhile, sustainability education, also known as education for sustainable development (ESD), is a field that focuses on promoting an understanding of the connections between the environment, the economy, and society. It aims to prepare students for jobs that contribute to a more equitable and sustainable future by teaching them real-world skills they can use to improve the planet. Sustainability education encompasses all school subjects and extends far beyond the classroom. It teaches students about the interdependence between humans and the environment and the importance of respecting the planet. It also emphasizes the need for participatory teaching and learning methods that motivate and empower learners to change their behaviour and take action for sustainable development. According to UNESCO, ESD allows everyone to acquire the knowledge, skills, attitudes, and values necessary to shape a sustainable future (Education for Sustainable Development, 2022).

Several educational institutions around the world have successfully embraced lean management principles to enhance sustainability and create a positive impact on their communities. For example:

(a) University of St Andrews: Pioneers in lean management for higher education, Robinson and Yorkstone from the University of St Andrews have updated the concept of lean management for the higher education industry, defining it as the right people continuously searching for

- the simplest and smoothest process to meet customer needs perfectly. ("A beginner's guide to lean management in higher education," 2023).
- (b) School districts: The Lean model has its roots in manufacturing, specifically the performance and quality standards movement developed by Toyota Motor Corporation following World War II. In education, where it can be difficult to define concepts like products, customers, or even quality, the Lean method has not yet seen extensive use; its applications have been primarily in higher education and non-instructional areas such as administration and facilities. In school districts that employ the Lean approach, superintendents acknowledge that, while often overlooked, efficiency is an essential improvement goal. Yet, school administrators aren't taught how to achieve it ("Quality improvement approaches: Lean for education," 2018).
- (c) Academic and administrative operations: Lean management has been applied to academic processes such as course design and teaching, improving degree programs, student feedback, and handling of assignments, as well as administrative functions such as admissions, registration, human resources, and procurement (Millard, n.d).
- (d) Continuous improvement: The Carnegie Foundation for the Advancement of Teaching explains that lean management for education is an improvement approach that encourages all school and district employees to identify and solve problems that prevent students from achieving the highest quality outcomes possible (McKay, 2017). The Lean model has its roots in manufacturing, but its underlying principles can be applied to education.

By aligning lean principles with sustainability goals, educational institutions in Malaysia and beyond can create a more efficient, eco-friendly, and socially responsible environment that nurtures both present and future generations of learners. Through successful case studies and the realization of numerous benefits, it becomes evident that the integration of lean management and sustainability is a winning combination for the educational sector.

CONCLUSION

In conclusion, lean management toward sustainability is not just a theoretical concept; it is a practical and transformative approach that can shape the educational sector for the better. As a nation with a growing economy and a diverse educational landscape, sustainability must be at the core of academic development to create a thriving, eco-conscious, and inclusive educational environment. By doing so, we empower the current and future generations of learners to become conscientious global citizens capable of shaping a more sustainable and equitable world for all. The journey towards sustainability begins with each of us taking the first step today.

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